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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

Proceeding	91175319
Party	Plaintiff Intuitive Surgical, Inc.
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

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INTUITIVE SURGICAL, INC.,	
Opposer,	
vs.	Opposition No. 91175319
	Serial No. 78/728,786
DAVINCI RADIOLOGY ASSOCIATES, P.L.,	Published: 12-19-06
Applicant.	

TESTIMONY DEPOSITION OF

CHRISTOPHER SIMMONDS

Tuesday, January 27, 2009

REPORTED BY: DEBRA ALLUSTIARTI CSR 10929 JOB 416321

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Deposition of CHRISTOPHER SIMMONDS, taken by the Opposer, at Four Embarcadero Center, 17th Floor, San Francisco, California, commencing at 10:09 a.m., on Tuesday, January 27, 2009, before DEBRA ALLUSTIARTI, CSR, pursuant to notice.

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A P P E A R A N C E S

FOR THE OPPOSER:

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--o0o--

SAN FRANCISCO, CALIFORNIA; Tuesday, January 27, 2009

10:09 a.m.

--o0o--

CHRISTOPHER SIMMONDS

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called as a witness by the Opposer, who, having been first duly sworn, was examined and testified as follows:

EXAMINATION BY MS. HIRTH

MS. HIRTH: Q. Could you please state your name for the record.

A. Christopher Simmonds.

Q. Who is your current employer?

A. Intuitive Surgical.

Q. Could you state your business address?

A. 1266 Kifer Road, Sunnyvale.

Q. Have you ever had your deposition taken before?

A. No.

Q. Have you ever given testimony at trial before?

A. I have given testimony at trial when I was -- in my youth in a British court.

Q. In that event, I'm going to go ahead and give you some ground rules so that we're all on the same page.

You've taken an oath, so we want your best testimony today and your best memory.

A. Mm-hmm.

Q. To make sure that the court reporter gets an audible result -- or something she can actually type, and that Mr. Vanden Bosch can hear what you're saying -- as opposed to a nod or shake of your head, we'd rather have you give some sort of audible answer.

A. (Witness nods head.)

Q. I'm going to ask you to give your best testimony and your best memory. I don't want you to guess. If you don't know something, "I don't know" is a perfectly acceptable answer. If you can estimate something, then I certainly would want that. Just let us know you're giving us an estimate.

A. Mm-hmm.

Q. I think most important -- two things -- if you don't understand a question I'm asking -- it's unintelligible to you, or you can't hear it -- let me know, because I'm going to assume you're answering what I think I'm asking.

And, then, this isn't an endurance test. If we need a break -- whether it be a moment to breathe or a rest room break -- then certainly ask us for that. And that goes for the court reporter as well. And I

think we're ready to start.

A. Okay.

Q. Have you taken any medication during the last 24 hours?

A. No.

Q. Okay. Is there any other reason that you're aware of that you can't give us your best testimony today?

A. No.

Q. Okay. Can you describe for me your educational background?

A. I'm university educated. High school. My first degree was at the University College London, and then my second degree was at Oxford University.

Q. And when you say your first degree was at University College, London, what was that degree in?

A. It was in geography.

Q. And your second degree, what was that?

A. It was a postgraduate certificate in education.

Q. When did you receive that postgraduate certificate?

A. 1982.

Q. Can you briefly describe for me your work history?

A. I started off as a teacher. I then moved into computer sales in London.

And then in the early '90s, moved into -- I joined, actually, an American company called Zenith Data Systems, which had just been taken over by a French company, and ended up being their European communications director responsible for all their advertising and communications across Europe.

And then I was hired by Boston Scientific originally to be also -- do their communications role in Europe. Was then moved to the U.S., and took up a role responsible for their E-marketing activities, setting up all their web sites.

I then went back to Europe, set up my own company -- which, actually, was subsequently purchased by Intuitive -- and then joined Intuitive and -- originally, in an E-marketing role, and then now I'm responsible for all their, what's called, marketing services; so all the communications activities for Intuitive Surgical.

Q. Can you tell me when you were first hired by Intuitive?

A. Essentially, it was in June of 2007.

Q. What was your job title at that time?

A. It was senior director, E-marketing.

Q. Did your job subsequently change with Intuitive?

A. I was then given the responsibility for marketing services, so it was expanded in November of that year to -- to cover the whole of the communication function and marketing service function.

Q. Is that the job you still hold today with --

A. That is the job I hold today.

Q. Can you tell me what the job title is that you hold currently?

A. Senior director, marketing services.

Q. Now, can you describe for me your job duties currently?

A. Well, the marketing services team are really responsible for four major areas. We have a --

MR. VANDEN BOSCH: Objection, it's nonresponsive. Describe his job duties, not the four teams.

THE WITNESS: Okay. I am responsible for managing a team of 16 people.

MS. HIRTH: Q. And can you describe for me what it is that the teams do?

A. The teams do. The teams, essentially, handle the communication activities for the company. Part of that is in trade show activity. Part of that is

developing all the marketing collateral on paper. Another part -- a lot of what we do is video based, so we actually have our own in-house video production team. And then we also manage all the company web sites and drive patient activation -- and drive patients to those sites.

Q. What is your role in terms of managing the teams?

A. Well, essentially, I set the, you know, overall direction, in terms of where we want to focus our activities. Obviously, manage the budgets; manage the people; and I am actually personally responsible for all the, really, online activity. We have quite a substantial paper click budget, which I look after myself as well.

Q. In this role, are you familiar with the activities that these 16 people on these teams conduct?

A. Absolutely.

Q. You've mentioned marketing. Are there specific products that you and your team are involved in promoting?

A. Absolutely. We promote the da Vinci surgical system, which is the main product that Intuitive Surgical sells, and also we promote da Vinci surgery as a category; which is essentially, obviously,

the treatment option that is delivered by physicians who are using the da Vinci surgical system. That, obviously, covers a wide area of treatments.

Q. Please describe for me very generally what a da Vinci surgical system is.

A. A da Vinci surgical system sometimes is described as a robot, but, in fact, a better description would be a computer-assisted surgical tool. It's really made up of three major components. It has a console where the surgeon will sit. It has a patient-side cart, which has three or four robotic arms which actually carry out the treatment on the patient. And then it has what's referred to as a "vision tower," which is really where all the intelligence and, obviously, very importantly, the whole vision system, which allows the physician to see in the patient because he sees through the use of an endoscope, which is then fed back into the console. So those are really the three major physical components, but, obviously, there's a lot of software as well; and in there, as well.

Q. Now, when you say the "da Vinci surgical system," are you referring to a single product?

A. Well, you know, I refer to that as a family. The original system was called the da Vinci surgical system. We subsequently launched -- I think, in 2006 --

the da Vinci surgical S, System S, and then we have now the S HD. Basically, as we enhance it, so we also added features and functionality to the product.

Q. Are all three of the systems you just mentioned still in use?

A. Absolutely.

Q. Do you refer to them all as "da Vinci," or do you refer to them separately?

A. We refer to them all as "da Vinci."

Q. To make it a little easier as we go through today, would it make sense to you if I just refer to them all collectively as "da Vinci"?

A. Yeah, or da Vinci systems.

Q. And, certainly, if at some point I'm asking questions and one of those three iterations of the system should be clarified as to being somewhat different from the others, please do let me know that.

A. Yeah.

Q. Okay. What -- well, you mentioned previously that this is robotic, minimally invasive surgery that these systems are used for. Can you tell me: Are there particular surgical disciplines in which the da Vïnci systems are used?

A. It's actually used in a really wide range of procedures. Urology, gynecology, cardiac and general

surgery are really the ones where they've actually had the greatest foothold at this moment in time. There's, I imagine, between 60 to 100 specific procedures that have been used -- that have been done using the da Vinci surgical system. However, there's about 12 or 15 which have really begun to gain acceptance, and in some areas -- for example, in treatments of prostate cancer -- it's beginning to be seen as being the standard of care.

Q. So are there particular surgical procedures that da Vinci is used most often for, or known for?

A. At this moment in time, yes. As I said, prostatectomy is where it's established itself. We estimate, in the United States today, somewhere between 60 and 70 percent of all prostate removals will be carried out using a da Vinci surgical system, so that's not an insignificant number.

But then, you know, in urology, there are a whole load of other smaller procedures -- such as nephrectomy, cystectomy, pyeloplasty -- which are also done using a da Vinci surgical systems.

Q. Are there other examples in areas other than urology of particular surgical procedures --

A. Yeah, I mean, the fastest growing sector at the moment is in gynecology, and hysterectomies -- both

cancerous and benign -- are growing rapidly. We're also finding it being used for myomectomies for removal of fibroids; sacrocolpopexies, which is in gynecology. And, also, in cardiac care, mitral valve repair and revascularization, it's also being used.

Then there's other areas within general surgery. Some of those in the U.S.; but, in fact, general surgery is gaining more traction outside the U.S. than in the U.S. at this moment in time.

Q. Now, as the senior director of marketing services -- I think you told us that's your title.

A. That's correct.

Q. -- are you familiar with Intuitive Surgical's efforts to promote its products?

A. Absolutely.

Q. Are you familiar with Intuitive's promotion of the da Vinci surgical systems?

A. Yes, I am.

Q. Is there a process by which Intuitive promotes these surgical systems?

A. Yes. Yes, there is.

Q. What is that process?

A. At the core, we basically focus first on procedural development. We believe -- in fact, we occasionally say we aimed for the heart, and we hit the

prostate. Because, in reality, the surgeons are the people who really know best how to use the system.

So what will happen is that a surgeon will have access to the system, have rights, and they will, then, you know, develop a procedure. Will come to us, and we will basically say: Is his procedure repeatable? Can you do it more than once? Is it teachable? Could other people do it? Because there's some people who do great procedures, but only they can do them. Then, also, is it a procedure where there is a certain volume, you know, which there might, therefore, be interest?

So, therefore, that's really the outset of what we do. Once that has been defined, we then develop a whole tool kit, which is really based around a video of that particular procedure, which we then transcribe into a procedural guide, a procedural card, a sales brochure, an interactive demonstration, which is really then used by the sales force to explain to other physicians how this specific procedure can be done, you know. So we then have -- some of those materials we, then, have.

Typically, then, once that has been established, we then use our presence at trade shows to educate and inform and attract other physicians to carry out that procedure. And we then, obviously, have some

training courses which we can, then, offer them to go on.

Q. You mentioned trade shows. Are there other specific avenues that are used by Intuitive to promote its da Vinci surgical systems?

A. To hospitals?

Q. To anyone.

A. Essentially, we promote the systems to surgeons and hospitals. We promote da Vinci surgery as a category to the general public and to patients as well. So, in fact, equally, once a surgeon has decided that he's going to actively follow a procedure, he often has to buy a system. He convinces the hospital to buy that system for him, or the hospital chooses to do that. We then provide the hospital with a whole range of tools to promote the fact that they're now offering that particular da Vinci surgical option; be it for prostate, be it for gynecology.

Then, also, we have then invested heavily in the Internet in developing a number of web sites which then both list the hospitals who have made the investment in the surgical systems, as well as the names of the physicians who have been trained and also reached a certain level of competence in using the system in that specific procedure.

Q. Now, you mentioned tools that you provide to hospitals. Can you tell me what some of those tools are?

A. We refer to it as a marketing tool kit, so, essentially, it covers, you know, almost anything they would need for promoting da Vinci surgery in their market. So it goes from invitation letters to patient seminars, invitation letters to referring-physician seminars, presentations, brochures, templates of billboard ads, templates for newspaper advertising, scripts for radio commercials, and also templates for TV commercials. Then we also provide B-roll to them if they wish to do their own PR activities.

Q. What is a B-roll?

A. It stands for beater tape. It's just television-quality film which, if you were to run it on the local news, you have to have the highest quality possible, so you've call it B-roll because it's the high quality.

Q. Okay. Thank you. I was not familiar with that term.

What I want to do is ask you specifically about some of these items.

A. Okay.

Q. First I want to ask you about trade shows.

A. Okay.

Q. Are there different types of trade shows or meetings that da Vinci participates in or attends, I think you mentioned?

MR. VANDEN BOSCH: Objection, leading.

MS. HIRTH: Q. Let me ask you a different way: Are there different types of trade shows that Intuitive is somehow involved with?

MR. VANDEN BOSCH: Objection, leading.

MS. HIRTH: Q. You can go ahead and answer.

A. We classify trade shows into three groups. We have what we call a small pop-up booth where, essentially, a sales rep will turn up, and -- small background stand where, occasionally, we may just have a table, but sometimes we'll also have a system at those events.

We will have a presence at a medical congress, which is really what most people think of as a trade show, where we will have a solid booth varying from 10-by-10 to 50-by-50, in terms of largest booths that we have.

Then we also have what we refer to as da Vinci symposia or educational events, where you have specific programs -- which often are sometimes two or three days -- where the content is exclusively

discussion around the latest techniques in robotic surgery and da Vinci surgery.

Q. Let me ask you about the first item you mentioned. I think you called it a pop-up.

A. Yeah.

Q. Can you just describe -- you said there's a pop-up booth.

A. Yeah.

Q. Can you describe what that is?

A. It's essentially -- it's a low-cost way of going to a trade show. It's essentially -- we call it a pop-up because it's something you can -- a sales rep can mantle and dismantle very, very quickly. Essentially, it has a picture of the da Vinci surgical system on it; obviously, our logos; and, typically, is used in regional congresses; for example, the AUA has as -- AUA is the American Urological Association -- has a lot of smaller conferences round the country, and so, typically, we would go -- we participate in those events. And, you know, there's a small exhibition room, and, mostly, the people who are exhibiting there, will have what we call these pop-up booths, or tabletops they're sometimes called.

Q. Have you attended shows with pop-up booths in the past on behalf of Intuitive?

A. Personally, I haven't, no.

Q. But you're aware of what goes --

A. Absolutely.

Q. You mentioned that there are logos displayed --

A. Yeah.

Q. -- at these pop-up booths. Can you tell me which logos?

A. Typically, they will be, obviously, the da Vinci surgical logo, the Intuitive Surgical corporate logo, and increasingly we're trying to introduce the notion of the da Vinci surgery logo in a lot of these venues as well; specifically, as we appeal more to a broader range of specialties. It makes far more sense to promote da Vinci surgery as a category.

Q. You also mentioned that there were regional trade shows where you had pop-up booths. Can you tell me what regions those shows occur?

A. They basically go all over the United States. Typically, the northeast, southeast, south central, the west are the areas where they happen.

Q. When you say "southeast," are there particular states in which such pop-up trade shows that Intuitive has attended --

A. Yeah, I mean, pretty much all the states in

that area; although there's none I can name specifically at this moment in time.

Q. Okay. Do you intend to -- does Intuitive -- let me rephrase.

Does Intuitive intend to attend these trade shows where you have pop-up booths in the future?

A. Absolutely.

Q. Does Intuitive intend to attend such shows in the southeast region in the future?

A. Absolutely.

Q. Who are the -- well, let me back up.

Are there materials handed out?

A. Yes. Typically, we will hand out our system brochure information and our procedural information at these shows because, obviously, the primary target is surgeons and hospital staff.

Q. Can you just sort of generally describe what such materials look like?

A. Well, they're typically eight-four brochures. The sales brochure will contain a couple of DVDs. The procedural cards and the procedural guides -- the cards are a double-sided eight-four document; the procedural guides, it can vary from 35 to 70 pages, based on the procedure.

Q. Are they in any way identified as something

produced by Intuitive?

A. Absolutely.

Q. How so?

A. They will all have the Intuitive logo, typically, on the front, and, also, they will then have the -- they'll actually have a house style, so that the urology ones are colored the same, GYN ones are colored the same -- we sort of have a template that we fit them into -- and then it will, obviously, say the name of the procedure -- da Vinci hysterectomy, da Vinci nephrectomy, da Vinci prostatectomy -- depending on which one it is.

Q. Can you give me -- and maybe you can't, so just tell me if you can't -- but can you give me some examples of locations or cities where these pop-up trade shows have occurred in the last year?

A. Well, I know -- the names I can remember more are where we have the medical congresses. The pop-up ones, you know, I -- actually, I know there's one in Jackson Hole, Wyoming. For example, we've had some in New York. They literally happen in most states at some point, but, again, exact -- I can't remember exact towns.

Q. Okay. Are -- well, let me ask you: Who are the attendees at these shows?

A. Medical practitioners.

Q. And do you have a sense of where the attendees hail from?

A. Well, obviously, typically, on a regional show like that, it will be from the local area -- that's the whole point of them -- so it will be physicians and surgeons who are within that particular catchment area.

Q. When you say physicians and surgeons, when you say "physicians," are you referring to some sort of other medical practitioner other than surgeons that attend these shows?

A. Obviously, when you take urology, for example, not every single urologist is a surgeon. If you do that, you'll get a much broader cross-section of attendees. It depends on the show itself as well. So we will go to some congresses where it's very, very specific to surgeons, and others where it's much broader, but there is still a significant surgical element, and, obviously, therefore, that's the reason why we participate.

Q. Now, you mentioned congresses, and I was asking really about the trade shows where you have the pop-up booths. Would your answer be the same with regard --

A. Absolutely.

Q. Now, I do want to ask you about the congresses, and so we are all on the same page, when you say a "medical congress," can you tell me what you mean by that?

A. Essentially, this will typically be the annual meeting of a specific medical society, and they tend to do those every year. I mean, you know, like, currently, in San Francisco, where I'm going to after this meeting, is the Society of Thoracic Surgeons. That takes place every year. They change location every year. I mean, there's only a certain number of big cities that can actually attract the size of participants because they need the congress facilities, they need the hotel infrastructure to attract them.

Q. Are you involved in Intuitive's promotion of surgical systems at these congresses?

A. Absolutely.

Q. And what does Intuitive do at medical congresses to promote its systems?

MR. VANDEN BOSCH: No foundation yet.

MS. HIRTH: I'll just put on the record that I think we have laid the foundation.

Q. But I'll ask you anyway: What does Intuitive do at these congresses?

MR. VANDEN BOSCH: Foundation that he knows.

What is his involvement?

MS. HIRTH: Fine. I'll ask that as well.

Q. When you attend medical congresses, what is your involvement?

A. Well, I'm basically involved in all the up-front planning that goes into these meetings, and so it's -- it really has a physical component -- which is, obviously, building a booth -- and then, also, it has a scientific component, and that scientific component is typically -- and obviously, the one that we can control the most -- is organizing physicians to come and present at our booth about the latest discoveries; essentially, clinical papers or clinical data that they have. And, also, at the bigger shows, we'll also feature live surgery, so we'll actually have a feed from a hospital and will then have a surgical procedure going on.

Because the video is such a key component to the surgical system, and one of the unique characteristics of the da Vinci surgical system is that the physician can actually see in 3-D, we actually set the booth up so that you can see -- using, obviously, special glasses -- a procedure in 3-D. And so, therefore, it's a lot of planning to both make sure that the booth is operating correctly, plus, also, my team is the team that goes out -- this is why I explained we

actually have a big in-house video production team -- we go out and capture the specific cases that are going to be featured at a show and then render them so that they can be displayed.

And that is -- it's a huge attraction for physicians. We will often get people sitting down for 45 minutes to an hour -- even longer -- just watching a surgical procedure; which, if you've ever been to a medical congress, doctors don't often stay on your booth that long. So it's a very, very important piece of that.

So my role is basically planning -- getting involved in planning what the medical program -- the clinical program is going to be, as well as ensuring that the infrastructure that we have is, you know, fit for purpose because we typically -- we may have eight different plasma screens; some of them working in 3-D HD, some of them not. It's a -- it's quite a technical feat.

Q. I think you just answered this question, but I'm going to ask you anyway: Other than what you've just told us about, are there other things that occur or that -- let me rephrase -- that Intuitive does at medical congresses?

A. I think the -- you know, the major other

thing that we will do -- we will promote, obviously, the fact that we're there, typically, in the journals or, you know, we also, you know, promote to the attendees who are coming that we're going to be there. There are often -- but we, obviously, don't have influence on that -- there are often presentations made during the scientific sessions by physicians; both in terms of, you know, presenting abstracts or in the form of presenting posters about their clinical results while using the da Vinci surgical system.

Q. Now, you mentioned that there are booths that you set up at these congresses.

A. Yeah.

Q. Can you describe what the booth looks like for me?

A. Well, typically -- how would I describe it? It's a very simple booth that is really, I think -- as I said, it's an audiovisual support system -- which really has two stages. We leave a lot of booth space for chairs for people to sit. At the front of the both, we will typically have a large screen where we will show the 3-D HD films. Then there are a number of other screens, which are just simple plasma screens, that will run in 2-D. And then we will have the da Vinci surgical system itself, actually, in front of the screens.

Because, in fact, one of the things that the physicians want to do is, obviously, they want to see the procedure, but then also they want to try the system out. So we call this doing test-drives. So a lot of the activity of the trade show is, basically, show the physicians a procedure. We get their details. We then give them a copy of the procedure on DVD, and then we also get them to sit down at the system and basically get a feel of what it's like to use the system, and how they can see and what they can do to, really, you know gauge if they're interested in going forward.

Q. Is there anything at the booth that tells these physicians that this is Intuitive's booth?

A. Absolutely. Depending on the -- you know, at the largest booths, we will have a ceiling-mounted banner, which basically calls out Intuitive Surgical and then the da Vinci surgical system. At every other booth -- and even on those large ones -- we will have logos at the top of the booths. We also have logos -- we do have separate workstations which have, again, plasma screens on them where the signage is either Intuitive Surgical, or we tend to lead with da Vinci surgical system or da Vinci surgery, depending on the congress.

Q. And can you estimate me for how many medical

congresses last year included any such booths by Intuitive?

A. We went to approximately 15 or 16 in the United States, and then there would have been another five or six major shows outside the United States that we went to as well.

Q. Can you give me some examples of organizations you said that have these congresses?

A. Obviously, the American Urological Association, Society of Thoracic Surgeons, the American Association of Gynecologic Laparoscopists, ISMICS -- I can never -- I think it's the International Society for Minimally Invasive Cardiac Surgery. So we go from general -- SGO, Society of Gynecologic Oncologists; EAU European Association of Urology. We also -- we go to the general surgery shows -- I'm trying to remember which one theirs is -- SGS, which is the Society of General Surgeons, which is a much broader show. Those would be some examples.

Q. Can you give me an understanding of who the attendees are, say, for an example, to a show or congress by the Society of Gynecologic Oncologists?

A. Well, essentially, that's a group of medical practitioners who have specialized in gynecologic oncology as being -- there's a whole sort of training

program that they have to go through that's been recognized by the AMA. So, essentially, as you go through that specific training program, you then become designated as a gynecologic oncologist, and, therefore, you can then join the society, and then you get invited to attend these shows.

Q. Can you give me an understanding of the attendees to a show like this held by the AUA?

A. That, obviously, will be, more generally, urologists. Again, anybody who has, as part of their medical training, has specialized in urology -- it doesn't have to be surgical urologists -- and there are subspecialties within urology itself. So, therefore, that will be a much larger show than, for example, SGO.

Q. In your experience, where do the attendees to these congresses hail from?

A. The majority are from the United States, but they do -- the more specialized and the larger shows do attract a large international attendance as well.

Q. Is there any particular place in the United States these attendees come from?

A. All over. And, you know, because, also, many of these congresses, obviously, offer CME programs which accredit for continuous medical education, and all physicians have to have a certain number of CMEs during

the year, so they use attendance at these congresses to meet some of their commitments.

Q. You mentioned earlier there are certain cities that host these congresses. Can you give me some examples of cities that host these congresses?

A. Obviously, San Francisco, Chicago, San Diego, Orlando, Tampa, Fort Lauderdale, Houston are the ones that ...

Q. You mentioned Tampa; is that in Florida?

A. Yes, it is.

Q. You also mentioned Fort Lauderdale. Do you know what state that's in?

A. That's in Florida.

Q. Same question for Orlando?

A. That's in Florida.

Q. Are there any medical congresses in 2009 that Intuitive intends to attend?

A. Yes.

Q. Can you give me any examples of some of those congresses that Intuitive intends to attend in 2009?

A. Essentially, the ones we've mentioned already: AUA, SGO, AGL, ISMICS, ATS.

Q. Do you already know where some of these congresses will be held?

A. I do.

Q. Can you tell -- give me some idea of where some of these congresses --

A. A lot of them are in Chicago this year. Some will be in San Francisco. I'm trying to remember. I know one is in Orlando. I can't remember which one of them is.

Q. Any others in Florida that you're aware of that will be held this year?

A. The robotic programs. I know that we're holding -- there is a big event, which is called the World Robotic Urology Symposium, will be held in Celebration, in Florida, in April.

Q. You said it's a symposium. So that's more a symposium rather than a congress?

A. Exactly. That is -- essentially, the difference is, when it's a specific, really, educational program around robotic surgery and da Vinci surgery, that tends to be set up by a specific hospital. So Florida Hospital, in this case, is the one that is sponsoring the WRUS in Celebration.

Q. I'm going to ask you about that in a moment. You mentioned that with regard to the congresses --

A. Yeah.

Q. -- that there is some promotion, I think,

you said in journals and to attendees.

A. Mm-hmm.

Q. Can you tell me, for example, if you had -- you mentioned a congress that's coming up in Orlando. Where would that promotion occur for that congress?

A. Well, obviously, the promotion of the congress itself will be done by the congress. And, typically, depending on the size of the congress, is around the convention center. Occasionally, they will put banners at the airport to point people in the right direction or on buses and stuff like that. Often it gets talked about in the local newspapers that that congress is going to be in that area.

Q. Okay. Now, I do want to ask you about the scientific symposia that we've been talking about.

A. Yeah.

Q. And just so I understand, what's the difference between a scientific symposia and a medical congress?

A. Well, really, a medical congress is something that is being set up by a medical society. What we see as robotic symposia is focused specifically on, really, robotic surgery and da Vinci surgery. So the educational program is governed by the, you know, the academic institutions. It's often run by academic

institutions, so, therefore, it's more run by a hospital or an academic institution than by a medical society, so to speak. And the content is much more focused on techniques, procedural development. There will be clinical papers presented there as well, but it's much more about the use of the robot, the use of the system in different surgical areas.

Q. Are you familiar -- let me back up.

Do you know whether Intuitive promotes its da Vinci surgical systems at scientific symposia?

A. Absolutely.

Q. Are you familiar with the promotion of the surgical systems at scientific symposia?

A. Absolutely.

Q. How are you familiar with that?

A. Well, I attend them. Essentially, I don't attend the pop-up booths, but I do go to the others because of just the time and investment that's involved.

Q. Did Intuitive promote its da Vinci systems at scientific symposia in 2008?

A. Yeah.

Q. Do you have an estimate of how many times that occurred?

A. I think we had about six or seven of those, and they're just beginning to grow.

Q. Do you recall which symposia Intuitive attended in 2008?

A. Well, obviously, WRUS -- the World Robotic Urological Symposium -- is the largest one. There is another one called IRUS, which is the International Robotic Urological Symposium. They tend to have slightly weirder names, but we basically do them on urology; we did some on kidney cancer; we did some on gynecology. We didn't do one on mitral valve in 2008. We will be doing one on mitral valve in 2009. So it's, typically, on that specific focus. Again, there will be some in the U.S., and also there will be others outside the U.S.

Q. You mentioned the WRUS that you attended in 2008. Where was that held?

A. Celebration in Florida.

Q. Is there a particular facility in Celebration, Florida?

A. Well, essentially, it's tied to the Disney facility there. I think it's held at the congress center of the Newport Beach Hotel at Disney Resort.

Q. Who puts on that symposia?

A. It's, essentially, the Florida Hospital who are the ones who are the main sponsor of that event.

Q. Where is Florida Hospital located?

A. Well, they're part of a group. I mean, they have four or five facilities. I think they're part of Adventist Health, if I remember correctly, who are all over the southeast region of the United States.

Q. Okay. Does Intuitive -- and you started to answer this a little bit -- does Intuitive intend to promote its systems in 2009?

A. Yes, absolutely.

Q. And can you give me some examples of those symposia?

A. Again, typically, it's the same ones. Unfortunately, the number doesn't go down; the number tends to increase. So we add scientific symposia. We just actually finished one in Las Vegas in January. It was called ERUS. There will be WRUS. There will be, for the first time, the WRGS, which is the World Robotic Gynecological Symposium. We also will have the equivalent cardiac symposium, renal symposiums, so on and so forth.

Q. You mentioned the WRUS.

A. Yeah.

Q. Is that the same WRUS that you've referred to already?

A. Yes.

Q. And where will it be held in 2009?

A. It's always in Celebration.

Q. So Celebration, Florida?

A. Yeah, yeah.

Q. And will the entity that's putting on that symposia be the same --

A. Yes.

Q. -- as it was last year?

Who are the attendees to the WRUS?

MR. VANDEN BOSCH: Personal knowledge -- no personal knowledge.

MS. HIRTH: Q. Let me ask it this way: I already asked you if you were familiar with these congresses.

A. Yeah.

Q. When you attend them, do you speak with people?

A. Yes.

Q. With whom do you speak when you attend these symposia?

A. The participants.

Q. And what do you speak with participants about?

A. Well, a number of things. My -- obviously, my main -- I'm not clinically strong, but I'm strong on the patient activation area, so I'm very interested in

talking to the patients and the -- in fact, we also have an executive branch of these symposiums, so CEOs and marketing directors from hospitals will come and attend. So I talk to them personally a lot about how they use the Internet, how they promote to patients, what tools we can develop for them which they're going to find useful when they're trying to inform and attract patients to their facility about da Vinci surgery.

Q. Do the attendees with whom you speak ever tell you anything about themselves?

A. Absolutely.

Q. What sorts of things do they tell you?

MR. VANDEN BOSCH: Objection, hearsay.

MS. HIRTH: Q. You can go ahead and answer.

A. I mean, we would typically just talk about how they like the system, what they use the system for and, obviously, how they promote it. Some of the challenges that they face and specific tools that they would like to make their life -- life easier when dealing with patients.

Q. Do they ever discuss with you the sort of work they do?

MR. VANDEN BOSCH: Objection, leading and calls for hearsay.

MS. HIRTH: Q. You can answer.

A. I mean, they're doctors, so they're obviously going to talk about what they do from, you know, from that perspective, but it varies. I mean, you have discussions about, you know, again what they like, what they don't like, how their patients react to it, and, equally, you have discussions about other subjects as well.

Q. So in your experience, who are the attendees to, for example, the WRUS?

A. Well, the attendees are typically surgeons who have already had access to a da Vinci surgical system and want to learn how to, you know, perform procedures better to, basically, get better outcomes from their patients. Because we obviously -- we are involved directly in helping promote these events. Over the years, we've grown a database of all the people who have been trained or who have shown interest on the da Vinci surgical system. So, you know, some of these events are registration only, so we actually do know the names of the people who are attending those -- those events.

Q. In your experience, from where do the attendees hail?

MR. VANDEN BOSCH: Objection, no personal knowledge.

MS. HIRTH: Q. You can answer.

A. They basically come from all over the world; especially, for some -- WRUS last year had 540 people, I think. It will actually get close to 700 -- perhaps, 800 -- this year, so they're pretty big events.

Q. Do they include people that come from the United States?

A. Yes.

MR. VANDEN BOSCH: Objection, no personal knowledge.

MS. HIRTH: I'm going to hand you a document, if I can find it in my set. Since I thought it was on top and it's not, maybe we can go off the record for a moment.

(Recess taken.)

(Whereupon, Deposition Exhibit 14 was marked for identification.)

MS. HIRTH: I'm handing you a document, and if you could take a look at it, I'd appreciate it.

A. (Witness reviews document.)

Q. Have you seen that document before?

A. Yes.

Q. What is it?

A. It's the home page of the Intuitive Surgical web site.

Q. Can you tell me what is written in the banner at the bottom?

A. World Robotic Urology Symposium; Florida Hospital, Global Robotics Institute; April 6th to 8th, 2009; click here for more information.

Q. And to your knowledge, is the information that's listed there accurate?

A. Yes.

MR. VANDEN BOSCH: Objection, calls for hearsay.

MS. HIRTH: I'm going -- we've already marked that, so we're just going to make that an exhibit. It's No. 14. Thank you.

Q. Now, you told us about -- I think you also mentioned much earlier on -- tabletop presentations.

A. Mm-hmm.

Q. Are you involved in tabletop presentations on behalf of Intuitive?

A. In terms of attending them, no. The only involvement I have is making sure that the branding elements are the right ones, so that the look of the graphics and the designs are the right ones.

Q. Can you tell me what you mean by branding elements and making sure they're the right ones?

A. That it conforms -- we have a style guide, a

branding guide, which basically outlines what the logos should be, the fonts we should use, the colors we should use, et cetera. And it's really just making sure that it conforms to those standards.

Q. What brands are you referring to?

A. Again, the Intuitive Surgical da Vinci surgical system, da Vinci surgery; the primary brands that we have. We also have an EndoWrist brand for our instrumentation.

Q. Where are these tabletop presentations made?

MR. VANDEN BOSCH: Objection, no personal knowledge.

THE WITNESS: I don't know physically, to be honest.

MS. HIRTH: Q. Now, you're involved, you said, in making sure the branding is correct.

A. Exactly.

Q. Are you in any way involved in determining the kind of locations or events at which tabletop presentations occur?

MR. VANDEN BOSCH: Objection, leading.

THE WITNESS: Again, it's something that we decide with my colleagues based on, typically, budgets. We can't go to, obviously, everything people want us to go to, so we allocate a certain amount of funds to those

events. And because, obviously, they're still part of a scientific society -- it's an exhibition -- you have to pay a charge to attend, so it really depends on how much funds we have.

MS. HIRTH: Q. Are you familiar with the kinds of events that Intuitive chooses to attend?

A. Yeah, as I said, they will tend to be regional meetings of the scientific associations.

Q. Okay. Are there any presentations that Intuitive gives, other than at trade shows that you've talked about; that is, medical congresses, the pop-up booths or symposia?

MR. VANDEN BOSCH: Objection. Leading, compound and no personal knowledge.

MS. HIRTH: Q. You can answer.

A. I think the only other major promotional activity that we do is, we actually have five mobile systems.

Q. Okay. What is that? What is a mobile system?

A. Essentially --

MR. VANDEN BOSCH: No personal knowledge.

THE WITNESS: It's a large truck that has a da Vinci surgical system inside it. It also has -- it's a rolling billboard. It has an advertisement for

da Vinci surgery, essentially, outside it.

MS. HIRTH: Q. Let me ask you: Are you familiar with these mobile systems?

A. Yes.

Q. How are you familiar with them?

A. Well, I'm responsible, partly, for deciding when they're going to be used and often for promoting the fact that they are being used, you know, in various regions around the United States.

Q. So then you're aware of when they are used?

A. Yes.

Q. When are they used?

A. Well, they're used -- I mean, typically, they will go to an area two or three times a month. By an area, I mean it may go to a town, and it's used in two or three different locations in that town. Obviously, the States is a big country. They have to be driven around, and there's regulations about the amount of driving that can done.

Q. When you say they go to a different area two to three times a month, where do they go?

A. Well, they, typically, will go to either hospitals, or they will also go to malls or sports -- sports centers or, you know, shops in general. Sometimes also retirement communities.

Q. What do they at these locations?

MR. VANDEN BOSCH: Objection, personal knowledge. I just heard that he knows when they go out.

MS. HIRTH: Q. Let me just ask you this just to address Mr. Vanden Bosch's objection: What areas with regard to these mobile systems are you familiar with?

A. Well, essentially, obviously, as you'd expect, we have an internal web site which shows when all these mobile systems are going to be used.

MR. VANDEN BOSCH: Objection, calls for hearsay.

THE WITNESS: And we are asked on a quite regular basis to promote, by creating postcards or adverts, the fact that these mobile systems will be in a specific area at a specific time. So, obviously, I therefore know where the system's going to be and what it's likely to be used for.

MR. VANDEN BOSCH: Can we go off the record just one second?

MS. HIRTH: Sure.

(Recess taken.)

MS. HIRTH: Q. So based on your understanding, what do these mobile systems do at the locations that you told us that they go to?

A. They're primarily used to really educate a variety of audiences -- be it physicians -- referring physicians, patients and their families -- about the da Vinci surgical system. And, typically, they go to those locations to offer what we call a test-drive because, basically, even a patient -- when a patient goes on the console and tries it and sees, essentially, how relatively easy it is and how detailed and precise it is, they, obviously, are less likely to be scared about that system being used on them or on one of their loved ones.

Q. So how many of these, I'm going to say -- I'm going to call it an event.

A. Mobile event.

Q. I'll call it a mobile event. How many of these mobile events is it your understanding occur per year?

A. I think it's -- I counted them, so I'm just trying to remember the graph -- it's between 150 and 200.

Q. Are there any particular areas of the country in which these occur?

A. Again, we split the country into five territories: northeast, southeast, north central, south central and west. Each of those territories has a

mobile system assigned to them, so it will basically happen in those geographies.

Q. Do you know what states in the southeast territory these mobile events have occurred in the last year?

A. They'll happen in all of them: Florida, South Carolina, North Carolina, Alabama, Mississippi. That will be sort of the area. Louisiana -- I'm not sure if Louisiana's in the southeast or south central.

Q. You mentioned Florida. Are you aware of where in Florida any of these events occurred in the last year?

A. I know personally of some in Gainesville and some in an area called The Villages because we helped promote those in terms of activities. I know that, also, Florida Hospital in Celebration has also done a number of these events.

Q. Were, to your knowledge, any of the events in Florida events at, you mentioned, shopping malls, sports centers or shops?

A. They weren't at those. One was at a retirement facility because of, obviously, the demographic of the Florida market. It was aligned with a PSA testing program. Again, so it was specifically for prostate cancer, so that happens as well.

Q. And you described the mobile vans to us. Is there anything -- are there any materials that go with the mobile van?

A. Well, obviously, we will also have a pop-up booth and then literature which is then handed out; and in that case, it will tend to be patient-facing information as opposed to surgery-facing information. We have a range of pamphlets that we produce for patients.

MR. VANDEN BOSCH: Objection, as to no personal knowledge.

MS. HIRTH: Q. Who creates those pamphlets?

MR. VANDEN BOSCH: Objection, no personal knowledge.

THE WITNESS: My team does.

MS. HIRTH: Q. And you manage that team; is that correct?

A. Yes.

Q. Do you have occasion to see these pamphlets?

A. Yes.

Q. Now you mentioned patient-facing --

A. Mm-hmm.

Q. -- materials. Just so we all understand, what do you mean by "patient facing"?

A. Well, it's really, obviously, materials that

are written to inform people who have not been clinically trained -- so surgeon-facing materials -- so the level of English at which you write it, the depth you go into -- at least, the clinical detail -- is much lower than for the surgeon-facing materials.

Q. So I'm clear on what we're talking about, so when you say "patient facing," do you mean patient directed or targeted?

A. Yeah, patient targeted. Typically, it's information that a physician would give to a patient to explain to them, This is the procedure, you know, I'm recommending or I'm suggesting that, you know, you might be interested in.

Q. And you just mentioned a patient gives them to -- excuse me -- a physician gives them to a patient. What materials are accompanying the mobile vans?

A. As I said, typically, those -- those materials; patient materials. You know, depends on the audience. Obviously, hospitals and sales reps can order different materials based on, you know, who's going to be attending the events. Say, if it's a referring-physician event -- which also may happen, when you want to educate a general practitioner about da Vinci surgery and its benefits -- again, you will tend to provide more clinical information.

Q. This may be obvious, but, for example, you mentioned a mobile event at a retirement home, I think.

A. Mm-hmm.

Q. To your knowledge, who are the attendees at such an event?

A. They will be the people, typically, you know, who live in that area and who are interested in learning more about the specific condition we're talking about. Obviously, in that case, it's about prostate cancer.

Q. Are materials provided to the attendees?

A. Yes.

Q. Are those the materials you just talked about?

A. Yes.

Q. Can you -- I think you already did, but I apologize if you did -- can you estimate for me how many of these mobile events occurred last year?

A. I said it was between 150 and 200.

Q. I apologize. You did.

And does Intuitive intend to continue these events in 2009?

A. Yes.

Q. Do you already have an understanding of whether any of these events are already scheduled for

2009?

A. Yes.

Q. Can you give me an example of any such events already scheduled for 2009?

A. There is one taking place in Denton, Texas, on the 14th of February 2009, which is actually going to be aimed at women who are facing potential hysterectomy; we're doing that. We also have developed partnerships with some advocacy groups. There is an advocacy group called the Hyster Sisters. It's the largest online community for women facing a hysterectomy. So they actually will also be attending, as well as the hospitals, as well as us. It's really just an awareness and education event.

Q. When you say they'll be attending, you're talking about them attending this particular event in Texas?

A. That's right.

Q. Are there any other mobile events that you can think of that are planned for 2009?

A. I haven't looked at the calendar recently, so I know they are, but I couldn't name specific ones. Actually, wait a minute. Yes, there's one I do, because we've just did the ad for it. There's one in Atlanta on the -- it's the first weekend of February, which I think

is the 7th and 8th. That actually is taking place at a bass pro shop, and that is going to be a prostate cancer awareness session, and that will be in conjunction -- I think it's with Northside Hospital in Atlanta. That's another example.

Q. Are you aware of any such events currently scheduled for 2009 in Florida?

A. Personally, no.

Q. Now, quite a bit earlier on you talked about training of practitioners, I think.

A. Mm-hmm.

Q. Are you in any way involved in the training by Intuitive of practitioners on its da Vinci surgical system?

A. No.

Q. Are you in any way involved in promoting such training?

A. Yes.

Q. So just to make sure, Intuitive promotes training of physicians on its system; is that correct?

A. Absolutely.

Q. And how are you involved in promoting that training?

A. Well, we produce the literature and materials which, obviously, make physicians aware that

these training sessions are available.

Q. Now, you say "we produce"; are you familiar with -- with the materials and literature --

A. Yes.

Q. -- that promote the training?

A. Yes.

Q. Are there ways other than literature and material that this training is promoted?

A. Well, obviously, we do quite a bit online, so --

MR. VANDEN BOSCH: Objection, personal knowledge.

MS. HIRTH: Q. I'll ask you: Are you in any way involved in Intuitive's online promotions of anything?

A. Yes.

Q. Are you involved in any way in Intuitive's online promotion of physician training?

A. Yes.

Q. I interrupted your answer with that, so if you want to continue your answer, that's fine.

A. Essentially, one of the first things that I did in my E-marketing role was set up an online community for physicians and medical practitioners. And almost the very first thing that a physician has to do,

when they're interested in attending a training program, is execute an online training module; which is, obviously, on the portal that we set up. And, in fact, every time somebody wants to actually join that community, I actually get an e-mail telling me that that person wants to join. Some other people in my team actually execute it, but every day I see the number of people that are coming to that online community and wanting to join, primarily, to initiate that training activity.

Q. And in your experience, who are the people that want to join that online community?

A. It's, obviously, surgeons. And, in fact, one of the -- they have to have been surgeons to join that community or hospital staff, you know. So there's also a role called "robotic coordinator" who we train as well.

Q. You mentioned literature and materials. To whom is that literature and those materials provided?

A. The surgeons and physicians and patients, obviously, sometimes.

Q. I'm talking specifically -- I should rephrase -- the material on physician training.

A. Obviously, to interested surgeons.

Q. Anyone other than the surgeons themselves to

whom that material is provided?

A. I mean, we'll give it to people if they're interested, but it's targeted at those people.

MS. HIRTH: I'm going to hand you a document.

And for Mr. Vanden Bosch, this is the document Bate's labeled ISI 00539 to 546.

(Whereupon, Deposition Exhibit 15 was marked for identification.)

MS. HIRTH: Q. I'm going to hand you both the original and the copy, and if you can look at both of them --

A. These are different.

Q. Oh, I'm sorry. They sure are. Thank you.

We've marked this Exhibit 15. Can you take a look and tell me if you've seen this item before?

A. Yes, I have.

Q. And what is it?

A. It's essentially a pamphlet promoting one of our training courses. Well, in fact, it's promoting a training course that is offered by Stanford.

Q. What is the title of the document?

A. "da Vinci Roux-en-Y Gastric Bypass Training Program."

Q. Since you have both the original and the

copy in front of you, is the copy that's been marked a true and correct copy of the original brochure?

A. (Witness reviews documents.) Yeah.

Q. Is this something that Intuitive Surgical has given out in the past?

A. Yes.

Q. And to whom was it given out?

A. This will typically be given out to interested surgeons, either at congresses and trade shows or, you know, when they inquire about training opportunities.

Q. Is it always given out directly by Intuitive to surgeons?

A. It's also given out by the institutions themselves, so not only exclusively by us.

Q. From where do the institutions get the document?

A. We will supply them.

Q. When you say "institutions," what sort of --

A. Like Stanford Hospital, for example.

MS. HIRTH: We'll try to stop doing that. Thank you very much. I'm going to hand you another document. If you wouldn't mind giving the exhibit to the court reporter, then she'll have that.

And for you on the phone, Matt, this is ISI

00547 through 554. Just let us know when you're ready.

(Whereupon, Deposition Exhibit 16 was marked for identification.)

MS. HIRTH: Q. If you could look at this document that's now been marked 16 -- I've provided you with an original and a copy -- have you seen this document before?

A. Yes.

Q. What is it?

A. It's, again, a pamphlet promoting a training course.

Q. What is the title of the document?

A. "da Vinci Prostatectomy Training Course."

Q. Is this a true and correct copy -- that is, the one that has been marked -- of the original?

A. (Witness reviews document.) Yes.

Q. Okay. And is this something that has been given out in the past?

A. Yes.

Q. And to whom has it been given out?

A. Surgeons.

Q. I'd like you to flip to the page that has a heading on it that says "Overview and Target Audience."

A. (Witness complies.) Yeah.

Q. If you could go to the section that's titled

"Overview and Target Audience" and please read the first two sentences aloud that start with, "The target audience."

A. The target audience for the da Vinci prostatectomy training course consists of board-eligible/certified urologists who should have attended at least one prior laparoscopy course and who have submitted the certificate for that course. The postgraduate laparoscopy course designed for urologists is entirely devoted to the transfer of the advanced laparoscopic and robotic skills necessary for performing the robotic-assisted laparoscopic prostatectomy.

Q. With regard to that first sentence that you read, is that statement accurate?

A. Yes.

MR. VANDEN BOSCH: That's hearsay and lack of personal knowledge.

MS. HIRTH: Q. With regard to the second sentence that you read, is that accurate?

A. Yes.

MR. VANDEN BOSCH: Objection. Hearsay, no personal knowledge.

MS. HIRTH: Q. Okay. Are there other brochures similar to what we've marked as Exhibits 15 and 16 that are given out by Intuitive Surgical?

A. Yes.

MR. VANDEN BOSCH: Objection, leading.

MS. HIRTH: Q. To your knowledge, does Intuitive intend to give out similar brochures?

A. Yes.

Q. Where -- if you know, where have training of physicians, such as those that are described in these brochures, been given in the past?

MR. VANDEN BOSCH: Objection, no personal knowledge.

MS. HIRTH: Q. If you know.

A. If I know. I mean, all over the States. It's essentially in -- typically, in academic institutions who want to run some form of da Vinci training program.

Q. To be clear, I think you told us that you were involved in preparing these materials.

A. Yes.

Q. Do you know for which institutions you are preparing the materials when you are preparing them?

A. Yes, because it, obviously, has the logo, obviously, shown on the materials as well.

MS. HIRTH: Let's go off the record a moment.

(Recess taken.)

MS. HIRTH: Back on the record.

Q. Mr. Simmonds, you mentioned, earlier, things like billboards, and I think you said radio ads and TV ads, and things like that. I want to ask you a little bit about ads.

A. Okay.

Q. Are you familiar with Intuitive's advertising?

A. Yes.

Q. How are you familiar with that?

A. I'm responsible for the advertising budget.

Q. Are you also familiar in any other way, other than the finances of the advertising?

A. I'm also responsible for the creative direction and execution of the adverts that we produce.

Q. Okay. Are there print advertisements used by Intuitive Surgical?

A. Yes.

Q. And for what are those print advertisements?

A. Direct print advertisements are done -- the majority are done for promoting activities at congress. We do, occasionally, produce some patient-facing advertisements that are used in a variety of press publications. We also produce templates to be used by hospitals.

Q. And what are those advertisements advertising?

A. We have created -- they're primarily awareness campaigns; making patients aware that there is a da Vinci surgical option for the specific condition that they may be facing.

Q. In what kinds of publications are these advertisements run?

A. The ones that we pay for directly have typically been in regional press, but then we know that our customers, you know, will typically do them in -- a lot of it's in press, in terms of advertisements, but they also will do radio commercials, and they also will do TV commercials.

Q. When you mention "regional press," what sorts of things are you referring to?

A. You know, the local -- I mean, the equivalent of the San Jose News or the San Francisco Chronicle, but in various markets around the States. It's not something we do a lot of, but it's something we have done some supporting in.

Q. When you mention radio, what radio outlets are these ads run on?

A. Again, these will typically be local radio stations; local subsidiaries of, perhaps, some of the

national networks. But the majority of paid-for activity is really done on a highly targeted fashion, and then is paid for exclusively by the hospitals who are promoting the fact that they have a da Vinci surgical system, and they're offering da Vinci surgery.

Q. You also mentioned TV ads, I think.

A. Yeah.

Q. What TV outlets are these ads run on?

A. Again, it will be local markets; local ads that are carried out by -- by the hospitals. Intuitive surgical does not invest directly in either radio or TV commercials.

Q. Does Intuitive Surgical have any involvement in the radio or TV commercials in any way?

A. Well, we, obviously, provide imagery materials -- we talked about B-roll earlier on -- so often we are requested for high quality shots of the system that hospitals can include in their commercials.

Q. To your knowledge, will promotions using print ads continue in the future?

A. Yeah.

Q. To your knowledge, will promotions using radio ads continue in the future?

A. Yes.

Q. To your knowledge, will promotions using

television ads continue in the future?

A. Yes.

Q. You mentioned billboards earlier.

A. Mm-hmm.

Q. How are billboards used?

A. A lot of hospitals -- again, they will promote the fact that they have a da Vinci surgical system. I don't know if -- you may not know, but there is a hospital, for example, called Good Sam -- Good Samaritan -- down in San Jose that goes next to the I-85. For about a year, they had a huge banner saying, We have a da Vinci surgical system, which was, obviously, then saying that fact. Then, a lot of hospitals find that a pretty cost-effective way of just letting their local community know that they have made that investment in this new sort of technology.

Q. Is there any -- let me ask you this: Where in the country are such billboards used?

A. They go all over the country, and I think, as I mentioned, we have a marketing tool kit which provides templates of things for hospitals to use. It also has examples. So I can't remember exactly which hospitals are in there, but if you look in there, you will find examples of all these elements -- be it radio, TV, billboards -- and then, obviously, press coverage,

because we do get a lot of press coverage as well.

MS. HIRTH: And I will ask you about that shortly. Let me hand you another document.

And, Matt, for you on the phone, this is Bate's No. ISI 001147. Just let us know when you have it.

(Whereupon, Deposition Exhibit 17 was marked for identification.)

MS. HIRTH: Q. Mr. Simmonds, have you seen this item before?

A. Yes.

Q. Are you familiar with it?

A. Yes.

Q. How are you familiar with it?

A. This is a piece of material that was produced by Intuitive Surgical.

Q. And what is it?

A. It's essentially a poster promoting da Vinci prostatectomy.

Q. And what is done with this poster?

A. Typically, this poster --

MR. VANDEN BOSCH: Objection, calls for speculation.

MS. HIRTH: Q. Are you aware of what Intuitive Surgical does with this type of poster?

A. This is given to surgeons for them to put in their waiting rooms.

Q. Let me back up a minute. Are you aware --

A. Yes, I am.

Q. -- of what Intuitive does with these?

And how are you aware of that?

A. Because every single piece of material that we produce is put into a -- we call it a marketing operations center, where people order that material. So we know, when materials are ordered, who it goes to.

Q. And in your role at Intuitive Surgical, are you involved in that sort of activity?

A. Absolutely. I'm responsible for managing the stock and understanding the throughput of materials there.

Q. Is that true with regard to all of the promotional materials --

A. Yes.

Q. -- and items we have discussed today?

A. Yes.

Q. So now, perhaps, you can tell us what Intuitive does with this type of poster.

A. This is a poster that would be ordered -- and is ordered -- by physicians to be used in their waiting rooms. In fact, it's ordered by the sales reps,

who give it to physicians for use in their waiting rooms.

Q. When you say "for use in their waiting rooms," do you have an understanding of how this poster is used?

A. It will be placed on the wall as an awareness piece that that is something which the physician is offering.

MR. VANDEN BOSCH: Objection, no personal knowledge of what the physician does with this.

MS. HIRTH: Q. Are you aware -- let me back up.

Does Intuitive provide any guidance to those to whom they provide posters such as this?

A. Absolutely.

Q. What guidance is that?

A. Well, we actually have -- I apologize for this -- but an internal -- we call it tarting up the office, and this was some of my team. I said -- we were discussing what we should be doing with those materials, and I used an English expression --

Q. It sounded that way.

A. -- which we thought was very funny. So we try and explain to physicians what they have to do to help promote the fact that they're offering da Vinci

surgery. The first step, actually, is very much about their web sites, and the second step, which we clearly defined -- in fact, we have communicated and educated the sales force about -- is making sure that their office reflects the fact that they are offering this.

So we specifically tell them that they have to ask them to put the posters up, ask them to take the patient literature. We also actually ask them to train their staff, so that when somebody picks up the phone, they know that the physician is offering da Vinci surgery and can articulate about it as well. So, no, absolutely, it's a specific program that we have actioned.

Q. Are there posters other than this that are provided to physicians?

A. Yes, because, obviously, this is just for prostate. We have, again, posters for the major treatment areas; for hysterectomy, for mitral valve repair, as well.

Q. Does Intuitive intend to continue to use posters such as this to promote?

A. Yes.

Q. Could you do me a favor and read the title of this poster for me.

A. "da Vinci prostatectomy. A better solution

for prostate surgery."

Q. Can you read the information that appears in the white portion.

A. "da Vinci prostatectomy.

"If surgery is required to treat your prostate cancer, you may be a candidate for a new, less invasive approach to radical prostatectomy called the da Vinci prostatectomy.

"For most patients, da Vinci prostatectomy offers substantially less pain and a much shorter recovery. Recent studies suggest that da Vinci prostatectomy may also offer improved cancer control and a lower incidence of impotence and urinary incontinence.

"Ask your doctor if you're a candidate for da Vinci prostatectomy."

Q. Then would you read for me the writing that appears in the shaded block.

A. "Are you a candidate for the latest treatment option for prostate cancer?

"Your doctor may be able to offer you a new minimally invasive procedure.

"For additional information, visit

www.daVinciprostatectomy.com."

Q. To whom is this poster directed?

A. At patients or potential patients.

Q. Now, you've mentioned advertisements. Are there any -- other than advertisements, any other written items that appear in publication with regard to the da Vinci surgical system?

A. Yes.

Q. What sorts of things are there that also appear?

A. They fall into two types: There are clinical publications, and there's also, then, articles and stories that appear in general circulation publications.

Q. Are you generally familiar with the articles that have been -- that have appeared in publications regarding the da Vinci surgical system?

A. I am familiar about the ones that appear in clinical publications, but normally only after they have been published; and, also, because we purchase the rights to reprint some of those, some facts. Part -- we have those in our marketing operation center I was talking about.

Q. Now, you mentioned clinical publications. Are there other publications in which articles about the

da Vinci surgical system appear?

A. Yeah, I mean, journalists write about the da Vinci surgery and the da Vinci surgical system on a regular basis. I think last year we had over 1,200 articles -- and, in fact, that includes TV and radio coverage as well -- that appeared just in the United States alone.

Q. And just to make it clear, were these articles all in clinical publications?

A. No, no. These were in general publications; news outlets. CNN, for example; Sanjay Gupta did a six- or seven-minute special feature on da Vinci prostatectomy.

Q. Great. Let me ask you -- I'm going to hand you some things. I'm going to do them one at a time, but I'm going to wait to mark them as a collective exhibit.

So for your information on the phone, the first thing I'm going to use is ISI 752 to 757. And the way you can find it easily, it's got the word "urology" large at the top, and it's an article.

(Counsel hands document to witness.)

MR. VANDEN BOSCH: Okay. I have it.

MS. HIRTH: Great.

Q. I've handed you a copy and an original, and

have you seen this article before?

A. Yes.

Q. What is it?

A. This is a reprint of an article that was published in The Journal of Urology.

Q. Can you tell me what the date is on that article?

A. May 2004.

Q. Can you read for us what the title of that is?

A. "Robot-Assisted Versus Open Radical Prostatectomy: A Comparison of One Surgeon's Outcome."

Q. To your knowledge, is the copy I've given you a true and correct copy of the article?

A. (Witness reviews documents.) Yeah.

Q. Does the article report on results using the da Vinci surgical system?

A. Yes.

Q. And are you familiar with this journal that you've told us that's titled "Urology"?

A. Yes.

Q. Who is its target audience?

A. Urologists.

Q. I'm going to hand you another document.

Matt, I'm just going to tell you all the

documents I'm going to use for this exhibit so you can get them all at once. The second document is ISI 00070 through 75. The third is --

MR. VANDEN BOSCH: Then you'll go back and discuss them one by one?

MS. HIRTH: Yes, but we'll make it just one lump exhibit.

(Discussion held off the record.)

MS. HIRTH: Q. I've handed you another document. Have you seen that before?

A. Actually, I haven't seen this one before.

Q. Okay. Can you tell us what the title is of that document?

A. It says, M.D. News, Business and Lifestyle Magazine for Physicians.

Q. Are you familiar with that magazine?

A. Actually, I'm not.

Q. That's fine. You know, we will not use that one in the exhibit. So you can just set that one aside, and I will hand you a third document.

This one, just for the record, is Bate's labeled ISI 000279 through 280.

MR. VANDEN BOSCH: I have it.

MS. HIRTH: Okay. Great.

Q. Have you seen this before?

A. This one I haven't.

Q. Okay. Can you tell me what the title of that document is?

A. "Forceps! Scalpel! Robot!"

Q. Does it indicate anywhere on that document where it was obtained from?

A. The Time magazine on June the 4th, 2001.

Q. Now, have you taken a look at it now?

A. Yes.

Q. Does it appear to be an accurate copy of a Time article?

MR. VANDEN BOSCH: Objection. Calls for speculation, no personal knowledge.

THE WITNESS: Yes.

MS. HIRTH: Q. Can you tell me what the date is on that?

A. As I said, June the 4th, 2001.

Q. Okay. And if you could take a look at it in detail, what I'm trying to find out from you is: Does this article state that it reports on the da Vinci surgical system?

MR. VANDEN BOSCH: Objection, hearsay.

THE WITNESS: (Witness reviews document.) It obviously has pictures of it, but does it use -- yes, it does, yeah.

MS. HIRTH: Q. You mentioned that it has pictures of it. Are you familiar with what a da Vinci surgical system looks like?

A. Yes.

Q. And the picture that's in that document, does that appear to be an accurate representation of a da Vinci surgical system?

A. Yes.

Q. Are you familiar with Time magazine?

A. Yes.

Q. Do you have an understanding of who its target audience is?

A. Yeah, it's a broad circulation magazine; business magazine.

Q. So who is its target audience?

A. I don't have the exact rate card, but it would be a typical AB-type demographic.

Q. What does that mean, "AB"?

A. You will rate people in terms of education and income. You use A, B, C, D. It depends; that was the old rate-card system. You have slightly more sophisticated ways now of trying to really pin down which particular audience is going to be reading a specific publication or web site.

Q. So you mentioned AB --

A. AB just means more educated, more wealthy target audience.

Q. I'm going to hand you another document. This one is ISI 790 to 795. And I have an original there, as well.

MR. VANDEN BOSCH: I have it.

MS. HIRTH: Great.

Q. Have you seen this before?

A. Yes, I have.

Q. Are you familiar with it?

A. Yes.

Q. What is it?

A. This is -- again, it's an extract from a Newsweek article.

Q. I've handed you an original and a copy. Does the copy look to be an accurate copy to you?

A. Yes.

Q. What is the date of that article?

A. November 12th, 2005 [sic].

Q. What is the title of the article?

A. "Cutting Edge."

Q. Does this article report on the da Vinci surgical system?

A. Yes, it does.

Q. You mentioned this was in Newsweek. Are you

familiar with that journal?

A. Yes.

Q. Who is that journal's target audience?

A. Again, it's a very similar audience to Time magazine. Essentially, it's a generalist, business-targeted magazine.

MS. HIRTH: I'd like to mark the copies of all three of these articles as Exhibit 18.

(Whereupon, Deposition Exhibit 18 was marked for identification.)

MS. HIRTH: Q. Now, you mentioned television advertising as well.

A. Mm-hmm.

Q. Can you give me some examples of television advertising that has occurred with regard to the da Vinci surgical system?

A. I mean, as I said, I don't -- I have seen examples, and we have examples on our marketing tool kit of adverts that hospitals have run. I don't know where they've run them or what their media spend was behind them.

MS. HIRTH: I'm going to hand you yet another document, and we can go off the record for a minute.

(Discussion held off the record.)

(Whereupon, Deposition Exhibit 19 was marked for identification.)

MS. HIRTH: Q. Mr. Simmonds, I've just handed you a document that we've marked as Exhibit 19. Have you seen that before?

A. Yes.

Q. What is that?

A. This is one of the inside pages of the Intuitive Surgical web site.

Q. Okay. And what is written about halfway down that page?

A. "da Vinci on 'The Doctors.'" Footage from "The Doctors" coverage.

Q. What is "The Doctors"?

A. "The Doctors" is a nationally syndicated health program -- that I think was launched in 2008, by Dr. Phil's organization, as sort of a spin-off from his show -- aimed specifically at answering questions around specific medical conditions.

Q. And how are you familiar with this program?

A. We've actually been contacted twice to support news --

MR. VANDEN BOSCH: Objection, not responsive, "we." How is he familiar?

THE WITNESS: Oh, because my team have been

contacted twice to provide support to this -- this show.

MS. HIRTH: Q. And are you aware of what your team --

A. Absolutely.

Q. -- does?

A. Absolutely.

Q. You said it was a nationally syndicated show. Does that mean it's shown nationwide?

A. Yeah, it's a show that -- it's not exactly the same time slot in every single market. It's one of those ones -- it's aimed at a female demographic. I think it runs at 8 o'clock in the Bay Area. It does in San Jose. But it runs different times around -- around the States.

Q. Now, you already read for us, I think, the sentence that appears above that banner?

A. Yeah.

Q. What is that referring to?

A. Essentially, they did a seven- or eight-minute sequence. We actually loaned them one of our mobile systems for the show. So they actually had one of our systems on the set. One of the doctors actually went and did a test-drive of the system, and they actually also had a patient and one of our physicians talking about the use of the da Vinci

surgical system in gynecology.

Q. Do you have an understanding of who the audience is for this show, "The Doctors"?

A. I know it's primarily a female audience. The exact demographic and the exact ratings, I'm not sure, but I know, for example, that, actually, it has already been taken up for a second year; which, actually, apparently, is quite unusual for syndicated shows. They tend to die a death after one season.

Q. How are you aware of what you've told us with regard to the audience of this show?

A. Well, it is a show that is shot in front of an audience, so when you actually look at the show -- which I have done -- you see who is there. And, also, both of the events that took place when they were shooting it, we actually had people from my team who were actually attending and supporting the show.

Q. Okay. Now, we've talked a little bit about brochures, and so I want to ask you a little bit more about them.

A. Mm-hmm.

Q. Are you generally familiar with brochures that Intuitive creates?

A. Yes.

Q. And is it correct that Intuitive -- well,

let me ask you this way: Has Intuitive used such brochures -- I think you've answered this already -- in the past to promote its surgical systems?

A. Yes.

Q. Does it intend to continue using brochures?

A. Yes.

Q. Now, we've talked about brochures used to train physicians, and you mentioned, earlier, brochures that are patient facing.

A. Yes.

MS. HIRTH: Q. I'm going to hand you three, actually.

And, Mr. Vanden Bosch, on the phone, these are -- these are documents that have Bate's Nos. ISI 562 to 567, 533 to 538, and 628 to 632. So just let us know when you have them.

I'm handing the witness both originals and copies.

(Whereupon, Deposition Exhibit 20 was marked for identification.)

MS. HIRTH: Q. Now, if you will take -- can you see which one is labeled 562?

A. Yeah.

Q. Have you seen that particular document before?

A. Yes.

Q. Are you familiar with it?

A. Yes.

Q. What is it?

A. This is one of pamphlets, I suppose, or brochures we produce to be -- that are aimed at patients, educating them on the da Vinci surgical procedures.

Q. Can you tell me the title of the document that you're holding?

A. "da Vinci Gastric Bypass. Changing the Experience of Bariatric Surgery."

Q. Now, the copy that you have, does that appear to be a true and correct copy of the original brochure?

A. Yes.

Q. Can you read the block that is in the lower left corner of the first page?

A. "Are you a candidate for the latest treatment option for obesity?

"Your doctor may be able to offer you a new, minimally invasive surgical procedure."

Q. Now, can you go to the -- there is a page in there that has sort of a schematic of a body, if you see

that?

A. Mm-hmm.

Q. Can you go to -- I think it's just below that and read the first sentence just under that; that starts, I think, If your doctor?

A. "If your physician."

Q. Sorry.

A. "If your physician recommends surgery to control your weight, you may be a candidate for a new, less invasive surgical procedure called the da Vinci gastric bypass. This procedure uses a state-of-the-art surgical system designed to help your surgeon see vital anatomical structures more clearly and to perform a more precise surgical procedure."

Q. I should have asked you when you read that first excerpt on the first page, is that first statement that you read on the very first page, is that the statement that actually appeared on this brochure when it was given out?

A. Yes.

Q. With regard to the statements you just read underneath the body on that other page, are those the statements that appeared -- or is that the statement

that appeared on this brochure when it was given out?

A. Mm-hmm, yes.

Q. Then, could you look at the very last page -- there's a white block in the middle of it -- and read the statement that's in that block.

A. "Your doctor is one of a growing number of surgeons worldwide who are providing leading-edge treatments such as da Vinci gastric bypass.

"da Vinci gastric bypass is setting a new standard for the surgical treatment of obesity.

"For more information on da Vinci gastric bypass please visit: www.daVincisurgery.com."

Q. To whom is this brochure targeted?

A. Patients.

Q. Has this brochure been given out to patients in the past?

A. Yes.

MR. VANDEN BOSCH: No personal knowledge.

MS. HIRTH: Q. And if you could look at the second document there, that one is the one Bate's labeled 533 to 538.

MR. VANDEN BOSCH: One second on that,

please.

MS. HIRTH: Sure.

MR. VANDEN BOSCH: Okay. I have it.

MS. HIRTH: Q. Okay. Have you seen this document before?

A. Yes.

Q. Are you familiar with it?

A. Yes.

Q. What is it?

A. It's a patient pamphlet promoting da Vinci prostatectomy.

Q. Can you read the title?

A. "da Vinci Prostatectomy. Changing the Experience of Prostate Surgery."

Q. You have an original in your hand, and there's a copy there. Does that copy appear to be a true and correct copy of the original?

A. Yes.

Q. And to your knowledge, is this brochure -- was it given out in this form?

A. (Witness nods head.)

Q. To whom was it given out?

A. This would have been given out to physicians to hand to their patients.

Q. Okay. And is this brochure still given out?

A. The latest version of it.

MR. VANDEN BOSCH: Objection to whom it's given out to.

MS. HIRTH: What's the objection?

MR. VANDEN BOSCH: The objection is: He has no personal knowledge as to whom this is still given out to.

MS. HIRTH: Q. Okay. I'm going to ask you to move to the third document that I provided to you.

A. Yeah.

Q. Have you seen that before?

A. Yes, I have.

Q. Are you familiar with it?

A. Yes.

Q. This is --

MR. VANDEN BOSCH: One moment, please. Let me get to this one.

MS. HIRTH: Sure.

MR. VANDEN BOSCH: Okay. I have it.

MS. HIRTH: Okay. Great.

Q. Can you tell me what this document is?

A. This is a pamphlet promoting da Vinci mitral valve repair.

Q. What is the title of the document?

A. "da Vinci Mitral Valve Repair. Changing the

Experience of Cardiac Surgery."

Q. I've handed you both an original and a copy. Does the copy appear to be a true and accurate copy of the original?

A. (Witness reviews documents.) Yes.

Q. And was the document, as it appears today, the form of the document that was provided?

A. Yes.

Q. Okay. To your knowledge, to whom was this brochure provided?

A. Again, to physicians to enable them to hand them to their patients.

Q. Who provided it to physicians?

A. Intuitive Surgical.

Q. With regard to all three of the documents you just looked at which make up this particular exhibit, are brochures like this still provided by Intuitive to physicians today?

A. Absolutely.

Q. Does Intuitive intend to continue to provide such brochures?

A. Yes.

Q. Okay. I'm going to ask you very briefly -- you mentioned earlier that there are videos that Intuitive puts together, I think.

A. Yeah, yeah.

Q. Are you familiar with those videos?

A. Yes.

Q. And how does Intuitive use those videos?

A. We use a lot of them on our web sites; especially, patient testimonials and animations that we've developed and surgeon testimonials. So those are really more general videos. Obviously, then, the clinical videos, which are really videos of procedures and procedural technique, those typically we distribute in DVD format because of the -- just the sheer size of them.

Q. Do any of the videos involve the da Vinci surgical system in any way?

A. Yes.

Q. And how is that system referred to on the videos?

A. The da Vinci surgical system.

Q. Where are the patient testimonial videos available?

A. They're available on all five Intuitive Surgical web properties.

Q. And who is the target audience of those videos?

A. Potential patients and their loved ones.

Q. Now, you mentioned clinical videos.

A. Yeah.

Q. Where are clinical videos that you mentioned available?

A. Well, they are available, as I said, through DVDs that we hand out. We also make them available through the online community for our physicians that I talked about. Not all of them, but a sample are available on the online community.

Q. Does the online community have a name?

A. It's called the da Vinci Surgery Online Community.

Q. You said the DVDs are handed out. To whom are they handed out?

A. To surgeons and physicians and, also, occasionally, general practitioners; but mainly to surgeons and physicians.

Q. Now, you distinguish, it sounds like -- tell me if I'm wrong -- between surgeons and physicians. When you say "physicians," what sorts of medical practitioners are you talking about?

A. Again, it's urologists who may not be a trained surgeon, but who is still interested in understanding, I mean, a little bit more the technique; although, again, a lot of these videos are actually

available online through an organization called "OR Live."

Q. You also mentioned just now DVDs. Are you familiar with Intuitive's use of DVDs?

A. Yes.

Q. Has Intuitive used DVDs in the past to promote anything?

A. Yes.

Q. What have they used it to promote in the past?

A. As I said, primarily, clinical publications -- clinical videos, but also we actually have produced a DVD for patients -- specifically, those facing prostate cancer -- where we have included an animation which describes in simplified form the procedure that a patient will potentially face.

Q. To whom does -- or let me put it this way: Does Intuitive give out those DVDs for patients to anyone?

A. Yes.

Q. To whom do they give them?

A. We give them to physicians. We also actually give them to advocacy groups who are also interested in distributing that information. It's also placed on the web site.

Q. Do you give any guidance to physicians as to whom -- as to what to do with these DVDs?

A. Not specifically. I mean, obviously, they're there for them to use as they see fit.

Q. Do you give any guidance to advocacy groups as to what they should do with the DVDs?

A. We have had some relationships where they have included -- for example, there is a group called the National Prostate Cancer Coalition, and they have changed their name to ZERO -- they included that animation as part of an educational DVD they produced, which they hand out to men who go to them. They have their own mobile systems which carry out PSA testing, so they're responsible for the distribution of those materials.

Q. Okay. I'm going to ask you -- well, let me -- I haven't asked you the one thing I did want to ask you, which is: Do you have an understanding of where the DVDs are distributed? By -- what I mean by that is, in terms of country or regions.

A. Yeah, I mean, equally -- as I said, our primary distribution method is through our sales organization, so I know exactly how many types of any literature that a specific sales rep in a specific territory orders on an annual basis.

Q. Can you give us an idea of geographically where the DVDs are distributed?

A. Well, we have, I think, between 250 and 300 reps now in the United States, so they're spread all over the States. And so, you know, it is really, literally, part of their bag, so to speak; is to have a sample of every single piece of literature, which they can then use and hand out. And, also, they will do specific orders to be shipped to specific surgeons at various times.

MS. HIRTH: Okay. Shall we go off the record for a minute.

(Discussion held off the record.)

MS. HIRTH: Back on the record.

Q. Now, as the senior director of marketing services, are you familiar with Intuitive's Internet web sites?

A. Yes.

Q. Are you involved in any way in maintaining these web sites?

A. I have been, yes.

Q. How many web sites does Intuitive have?

MR. VANDEN BOSCH: Objection, there's no personal knowledge of the web sites. He says he has been. Is he currently?

THE WITNESS: Yes. I, basically, am currently responsible for all the metrics on a weekly basis, so I know exactly the level of traffic, and I'm also one of only three people who have actually been trained on the content management system. So when I say "have," one of the sites I actually built 50 percent of it myself. I just haven't had to do that in the last six to nine months.

MS. HIRTH: Q. Just to follow up on that, are you familiar with the content of Intuitive Surgical's web sites?

A. Absolutely.

Q. That would be true with regard to all of its web sites?

A. Yes.

Q. I'm going to -- well, let me ask you this -- and this is not a test -- can you tell me what the URLs are for the different web sites?

A. There's, obviously, www.intuitivesurgical.com. There's www.daVincisurgery.com. There's www.daVinciprostatectomy.com. There's www.daVincihysterectomy.com. There's www.daVincistories.com. And then I think it comes across as www.roboticsurgeryonline.com, but that's the

one I'm least sure about, which is the online community.

Q. Okay. I'm going to ask you about five of those six web sites.

A. Okay.

Q. I'd like to first ask you about the www.intuitivesurgical.com web site. To make it easy on all of us, I'm going to refer to as the Intuitive Surgical web site.

Who maintains that site?

A. It's maintained by us.

Q. When you say "us," who do you mean?

A. Specifically, the E-marketing manager in my team.

Q. Okay. And can you take a look -- I'm going to hand you --

And maybe we can go off the record for a moment.

(Discussion held off the record.)

(Whereupon, Deposition Exhibit 21 was marked for identification.)

MS. HIRTH: Mr. Simmonds, I've just handed you a rather large document, and just for the record, the very first page has at the bottom a URL that is www.intuitivesurgical.com/index.aspx.

Q. I wonder if you could look through this

document and just let me know when you're ready.

A. (Witness reviews document.) Yeah.

Q. What does this document appear to be?

A. This appears to be a printout of our corporate web site.

Q. Does this appear to be a true and correct copy of pages of the Intuitive Surgical web site?

A. Yes.

Q. And you've already told us that you're familiar with the content of the web site.

A. Mm-hmm.

Q. To your knowledge, are the statements made on these pages true and correct?

A. Yes.

MR. VANDEN BOSCH: Objection, that calls for hearsay.

THE WITNESS: Well, I mean, every single page --

MR. VANDEN BOSCH: The way you stated the question the last time with respect to the brochures -- Are these the same statements, you know, that they've always been originally? -- then I'd say it's not being offered for the truth of the matter asserted.

MS. HIRTH: Q. Did you have any part in creating the content on this web site?

A. On this particular web site, no.

Q. But you're familiar with the statements on the web site?

A. Yes.

Q. So to your knowledge, are the statements made on these pages of this web site accurate?

A. Yes.

MR. VANDEN BOSCH: Objection, calls for hearsay. Calls for speculation, no personal knowledge.

MS. HIRTH: Q. Now, let me ask you: In looking through this, do you see depictions of da Vinci surgical systems anywhere?

A. Yes.

Q. And, perhaps, you can flip to a page that has a depiction, and I'll try to find one for you.

A. Well, there's one called the da Vinci surgical system.

Q. Exactly. Is there a picture of a da Vinci surgical system on this page?

A. Yes, there's more than one.

Q. Does this appear to you to be an accurate and correct depiction of a da Vinci surgical system?

A. Yes.

Q. Let me get the right page. And can you tell me -- can you read the URL?

A. www.intuitivesurgical.com, slash, products, slash, daVincisurgicalsystem, slash, index.aspx.

Q. Just to make sure we have this correct, between the term "da Vinci" and "surgical system" on this URL, is there an underscore?

A. No.

Q. You have a different page than I do. That's perfectly fine.

To whom is this web site targeted?

A. This web site is really primarily targeted at people who are interested in the company, so it tends to be potential employees, employees, investors in the company. But, also, we put information on there aimed at surgeons, hospitals, as well as patients, because we also know that they know the company, so will visit that site as well.

Q. In what way does it target patients, to your knowledge?

A. Well, we have a specific section that's called "Patient Resources," and we also have access to both a hospital locator and physician locator underneath this site.

Q. Speaking of that, I'm going to ask you to turn to a page that has a URL that is www.intuitivesurgical.com, slash, patient resources,

slash hospitals, underscore, doctors, slash, index.aspx.

Have you found that?

A. I've got one that says, "underscore, results."

Q. I think if you look a little before that, you --

A. Yeah, index. Yes.

Q. There you go. And what does this page depict?

A. Essentially, it depicts a box which allows somebody to search for either surgeons or hospitals, and then enter either their zip code or the state or the country in which they are interested in.

Q. When you say it allows one to search for surgeons or hospitals, are these surgeons and hospitals of a specific type? Is there anything --

A. It's -- essentially, the hospitals are hospitals which have made an investment in a da Vinci surgical system, so it's one where you will find a da Vinci system. And the surgeons are surgeons that have been trained and actually have done a minimum of 20 cases on a da Vinci surgical system.

Q. If you could turn the page to the one you just had that says "results," I think.

A. Yeah.

Q. What does that page depict?

A. This shows the results from the state of Florida for hospitals that have da Vinci surgical systems installed.

Q. Now, if you could turn -- I think it's another couple pages.

A. (Witness complies.)

Q. Keep going.

A. (Witness complies.)

Q. What does this page depict?

A. This is another page of hospital results from the state of Florida.

Q. Now, if you could look at the tenth entry down, I believe it is, can you tell me what is in that entry?

A. It says, JFK Medical Center, Atlantis, Florida, zip 33462.

MR. VANDEN BOSCH: Objection, it calls for hearsay.

MS. HIRTH: Q. Are the results of the searches people do with the hospital locator -- the one we've been talking about -- is it your understanding that those results are accurate?

A. Yes.

Q. How do you know that?

A. Well, we have a very clearly defined process which we will only put on hospitals who actually have purchased; in fact, we only put them on the day after we have announced our earning announcements for the prior quarter.

Q. So given your understanding of the web site, what did that entry indicate to you?

A. That all the hospitals -- and, obviously, specifically that one -- will have the da Vinci surgical system.

MS. HIRTH: Now, I can't recall if we have marked this already.

THE REPORTER: Yes, we did.

MS. HIRTH: So we're done with this for a moment. Maybe we could go off the record.

(Discussion held off the record.)

(Whereupon, Deposition Exhibit 22 was marked for identification.)

MS. HIRTH: Back on the record.

Q. So now I'd like to ask you about the daVincisurgery.com web site, and I'll refer to it as da Vinci surgery.

A. Mm-hmm.

Q. Who maintains that web site?

A. Intuitive Surgical.

Q. Are you in any way involved in maintaining the web site?

A. I have been, in the sense that I have posted content on this site. At the moment, we're actually in the process of redesigning it, and I'm very actively involved with that.

Q. So are you familiar with the content of that web site?

A. Absolutely.

Q. If you could look through that document I've handed you -- just for the record, the very first page at the bottom says, www.daVincisurgery.com/index.aspx.

Does what I handed you appear to be a correct copy -- well, let me ask you this: What does it appear to be to you?

A. It appears to be, I mean, extracts of the site. I would be surprised -- you may have everything there.

Q. I'll represent that I have most things there.

A. But, yeah, this is the content that we have on the da Vinci surgical site.

Q. To your knowledge, just to clarify, does it appear that these are true and correct copies of web pages that appear on that web site?

A. Yes.

Q. And to whom is this web site directed?

A. This is really directed at health seekers, so people who are just generally interested about health care; patients and also, obviously, you know, their loved ones or significant others.

Q. Will you take a look at the first page, and right under the title, where it says "Welcome to," could you read that first sentence?

A. "Welcome to da Vinci Surgery.com, a web site designed to inform patients and their loved ones about what may be the most effective, least invasive surgical treatment option available today."

Q. Okay. Thank you.

Does this web site also have a surgeon and hospital locator?

A. Yes, it does.

Q. Is it similar to or the same as the surgeon/hospital locator we talked about with regard to the Intuitive Surgical web site?

A. It's exactly the same one.

MS. HIRTH: Now I'm going to hand you the next exhibit which, I think, will be 23.

(Whereupon, Deposition Exhibit 23 was marked for identification.)

MS. HIRTH: For purposes of Mr. Vanden Bosch, the exhibit -- they're printouts from the daVinci_prostatectomy.com web site, and you would have received it in one PDF. Are you ready?

MR. VANDEN BOSCH: I am.

MS. HIRTH: Q. Mr. Simmonds, I've just handed you a document. If you could take a look at it, that would be great. We've just marked it as Exhibit 23.

Who maintains -- what is this document?

A. This is a printout of pages from our da Vinci prostatectomy web site.

MS. HIRTH: Just for the record, the URL on the first page is www.daVinciprostatectomy.com, slash, da Vinci, underscore, prostatectomy, slash, index.aspx.

Q. And who administers the web site from which these pages have come?

A. This, again, is maintained by Intuitive Surgical.

Q. Are you involved in any way in maintaining the web site?

A. Well, this is the site which I personally built about half the pages when we originally launched it -- actually, when we redesigned it.

Q. Are you familiar with the content of the web

site?

A. Yes, yes.

Q. Does this appear to be -- do these appear to be true and correct copies of web pages --

A. Actually, I'm wrong. The one I did was the hysterectomy site. I didn't do the prostatectomy site. I'm getting myself confused.

Q. Nonetheless, are you familiar with the content of this web site?

A. Yes, I am.

Q. Do these appear to be true and correct copies of web pages from the da Vinci prostatectomy web site?

A. Yes.

Q. Okay. To whom is this web site directed?

A. Again, health seekers who are looking to find out health information; specifically, this one about prostate cancer.

Q. Does this web site also have a hospital and surgeon locator?

A. Yes, it does.

Q. And is that physician and hospital locator similar to the one we've already discussed with regard to the Intuitive Surgical web site?

A. Yes, it's the same one.

MS. HIRTH: Now, if we can move to the next exhibit, which I think will be 23.

THE REPORTER: 24.

MS. HIRTH: I'm sorry. 24.

We can go off the record.

(Discussion held off the record.)

(Whereupon, Deposition Exhibit 24 was marked for identification.)

MS. HIRTH: Back on the record.

Q. Do you have the document?

A. Yes, I do.

Q. I've handed you a document, and I'm going to ask you if you can just tell us what this appears to be to you.

A. These are printouts from our da Vinci hysterectomy web site.

Q. Is the URL of that www.daVincihysterectomy.com?

A. Yes.

MS. HIRTH: For the record, the first page of this exhibit has the URL www.daVincihysterectomy.com/index.aspx.

Q. Who maintains this web site?

A. Again, Intuitive Surgical.

Q. Are you involved in maintaining this web

site?

A. Again, I don't maintain it on a daily basis, but I was involved in building this specific site.

Q. Are you familiar with the content of this web site?

A. Yes, I am.

Q. Does this -- do these copies appear to be true and correct copies of web pages from the da Vinci hysterectomy web site?

A. Yes. I mean, representations of content; obviously, the pages themselves look slightly different on the computer screen.

Q. Okay. To whom is this web site directed?

A. Again, health seekers generally, but, obviously, specifically in this case, women facing hysterectomies.

Q. Does this web site also have a surgeon and hospital locator?

A. Yes, it does.

Q. And is that surgeon and hospital locator on this web site similar to the one we've already talked about on the Intuitive Surgical web site?

A. Yes, it's the same.

MS. HIRTH: We've already marked this.

I will now hand you what should be the final

exhibit today, and I think it's Exhibit 25.

And we can go off the record.

(Whereupon, Deposition Exhibit 25 was marked for identification.)

(Discussion held off the record.)

MS. HIRTH: Q. I've handed you yet another document, and can you tell me what this document is.

A. This is extracts from our daVincistories.com web site.

Q. Who administers that web site?

A. Again, Intuitive Surgical.

Q. Are you familiar with this web site?

A. Yes.

Q. How are you familiar with it?

A. Basically, I was responsible for helping design it and also bring it -- you know, launch it.

Q. When did it launch?

A. It launched in December of 2008.

Q. Can you take a look at the web pages I've provided to you and tell me if they appear to be true and correct copies of web pages on the daVincistories.com web site?

A. Yes they do.

MS. HIRTH: For the record, the very first page has the URL www.daVincistories.com.

Q. What is the purpose of this site?

A. Essentially, it's a site where patients, who have actually had a da Vinci surgery, can share their experiences with other patients. And so not only can you go in and you can look at these patient testimonials, but it also has the functionality that if a patient would like to add their testimonial, they can do that.

Q. Does the site contain patient testimonials?

A. Yes, it does.

Q. Now, to your knowledge, are these testimonials from actual patients?

A. Yes.

Q. How do you know that?

A. Well, I know some of them personally, so I've talked to them and met them. Obviously, they are recommended by physicians, if we haven't. Obviously, they then sign a legal document saying that they have had and that they allow us to use their stories and to promote it in this way.

Q. And this may be redundant, but to whom is this site directed?

A. Clearly, other potential patients and loved ones and health seekers who are interested in da Vinci surgery.

Q. Is there any way you can tell who clicks on to each of Intuitive Surgical's web sites?

A. Yes. We basically run an annual pop-up questionnaire on all the sites, where we specifically ask people a number of demographic questions -- age, sex, education -- and also why -- why they're visiting that site and what specific disease and states are they looking for.

Q. Are you familiar with the results of those pop-up questionnaires?

A. Yes.

Q. How are you familiar?

A. Obviously, I'm the one that has to analyze them.

Q. What have you seen, in terms of those results, with regard to who was visiting the web sites?

A. Well, essentially, when you look at traffic on the Internet, health seekers are split into three groups -- and there's a Pew Research document that sort of outlines this -- and it's called the worried well; if you want to call them hypochondriacs. You then have the recently diagnosed. And you then have the chronically ill. And the worried well make up about 60 percent of the Internet traffic; recently diagnosed, between 5 and 10 percent; and the chronically ill -- that could

include anybody who has a condition that needs continuous -- it may be a chronic condition like diabetes -- they make up the remainder.

So, essentially, we asked people: Why are you coming to the site? How would you describe yourself? And we know, not surprisingly, that quite a significant part of our traffic is from people who have been recently diagnosed because, obviously, the procedures we offer typically will tend to be for cancerous indications. And so, therefore, somebody gets diagnosed, and they want to find a solution to it, and da Vinci surgery is one of those solutions.

Q. With regard to the traffic you just mentioned, is that with regard to each of these web sites?

A. Yeah. Obviously, we haven't done it yet on patient stories because we only launched that in December. But we actually run the same questionnaire across all sites. We do it, typically, for two or three weeks in July.

Q. And the results you just told us about, do those pertain to each of the four web sites, other than the da Vinci stories web site?

A. Yes.

MS. HIRTH: For the moment, those are all

the questions I have. So we can go off the record for a moment, and then we can open it up to cross.

(Recess taken.)

EXAMINATION BY MR. VANDEN BOSCH

MR. VANDEN BOSCH: Q. Mr. Simmonds, you don't direct your promotions of Intuitive Surgical products to the American College of Radiology; do you?

A. To the American College of Radiology? We don't attend any of their trade shows, as far as I'm aware.

Q. So is your answer, no, you don't promote to the American College of Radiology?

A. I presume so, yes.

(The following testimony has been designated "confidential" and can be found in a separately bound transcript.)

(Nonconfidential testimony resumed.)

MR. VANDEN BOSCH: Q. And it's -- as the director of marketing, it's not your intent to try to sell these expensive machines to patients; is it.

A. Not the systems, no.

Q. As the director of marketing, it's not your intent to have patients come to Intuitive Surgical for surgery; is it?

A. No, not to the company for surgery, no.

Q. And as the director of marketing, it's not your intent to have patients ask their doctors to refer them to Intuitive Surgical for surgery; is it?

A. Not to Intuitive Surgical.

Q. As the director of marketing, your promotional materials -- the awareness campaign, the web sites, all these -- all the marketing that you're in charge of is intended to have patients go to their doctors who utilize the da Vinci products, right?

A. Absolutely.

Q. It's also your intention for patients to go to hospitals that utilize the da Vinci products, right?

A. Absolutely.

Q. And it's also your intent, as the director of marketing, to have these patients go to their doctors for referral to another doctor who utilizes da Vinci

products; is that right?

A. Absolutely.

Q. Or to go to their doctors for a referral to a hospital that utilizes da Vinci products; isn't that right?

A. Correct.

Q. With respect to Exhibit 19 --

A. Yeah.

Q. -- the video there on "The Doctors," there's a doctor in that video named Dr. Sherry Levin; isn't that right?

A. That's correct.

Q. And she's signified as a da Vinci robot specialist; isn't that right?

A. That's correct.

Q. And there's a patient on there named Annette; isn't that correct?

A. I don't remember her name, but there's a --

Q. There's a patient on there; isn't there?

A. There is.

Q. And Dr. Levin is recommending robot-assisted proscopy [sic]; isn't that correct?

A. I think it's a hysterectomy. Again, I can't remember exactly, but I think it was -- she was a hysterectomy patient.

Q. Does laparoscopy figure in at all with a hysterectomy?

A. Are you referring to laparoscopy?

Q. Yes. Is that just a camera?

A. No, laparoscopy is, essentially, another minimally invasive technique that is -- some refer to the da Vinci surgical system as a computer-assisted laparoscopic system. So laparoscopy is the notion of using an endoscope -- or a camera -- and small holes, but they're manually manipulated as opposed to being manipulated by a system.

Q. For more information on -- for more information at their various web sites, Intuitive Surgical instructs patients to do a number of things, if they have further questions.

My question is: Is one of those instructions to talk to your doctor?

MS. HIRTH: Objection, vague and ambiguous as to "their web sites." Are you referring to Intuitive Surgical's web sites?

MR. VANDEN BOSCH: I am referring to Intuitive Surgical web sites.

MS. HIRTH: Thank you.

MR. VANDEN BOSCH: Q. If patients have more questions, are they instructed to talk to their

physicians?

A. Yes.

Q. Are they also told to take a questionnaire if the -- if they want to figure out whether they're a candidate for da Vinci surgeries?

A. I -- we don't have an automatic questionnaire. We basically say, These are the sort of questions you might ask to physicians, but we don't have a, you know, an automatic questionnaire which you fill in and pops out an answer.

Q. And there's also, as you've noted there, patients are directed to fill in some information to determine where hospitals and physicians are located that employ the da Vinci surgery product; isn't that correct?

A. That's correct.

Q. da Vinci diagnostic imaging isn't a result of one of those searches; is it?

A. da Vinci diagnostic imaging is not a result of one of those searches. I don't understand the question.

Q. A search for a facility -- a search for hospitals or physicians that use da Vinci surgery products --

A. Yeah.

Q. -- da Vinci diagnostic imaging is not a search result; is it?

MS. HIRTH: Objection, vague and ambiguous as to "search." Where are we talking about searching?

MR. VANDEN BOSCH: Q. On the various Intuitive Surgical web sites where you can determine where a physician or a hospital uses da Vinci surgery products, da Vinci diagnostic imaging is not a search result; is it?

A. I don't know the answer to that question.

Q. Intuitive Surgical does not do any product promotion to the Radiological Society of North America; does it?

A. I think we have in the past, but I'm not a hundred percent sure.

Q. Does it promote to the American Board of Radiology?

A. I don't know.

Q. Has it promoted to the American Board of Radiology in the past?

A. I don't know.

Q. And you don't know whether it's promoted to the Radiological Society of North America before?

MS. HIRTH: Asked and answered, cumulative.

MR. VANDEN BOSCH: Q. Have you ever had a

display at the RSNA convention in Chicago in late November of any year in this decade?

A. Again, I mean, I personally don't know.

MS. HIRTH: Belated objection, overbroad.

MR. VANDEN BOSCH: You want me to go through the years, Michelle?

MS. HIRTH: No, my objection is it's overbroad as to time: 10 years.

MR. VANDEN BOSCH: Q. Has -- okay. Has Intuitive Surgical ever had -- try to remember the name -- had a pop-up display or any other display at the Radiological Society of North America's convention in Chicago, which takes place in late November?

A. Yeah, I mean, I know the show because I used to attend it with Boston Scientific when I was there. I just don't know the answer for Intuitive.

MR. VANDEN BOSCH: That's all I have.

MS. HIRTH: I don't have any other questions on redirect.

--o0o--

(Whereupon, the deposition was adjourned at 12:58 p.m.)

--o0o--

I declare under penalty of perjury that the foregoing is true and correct. Subscribed at _____, California, this ____ day of _____, 2009.

_____

Signature of Witness

CERTIFICATE OF REPORTER

I, DEBRA ALLUSTIARTI, a Certified Shorthand Reporter, hereby certify that the witness in the foregoing deposition was by me duly sworn to tell the truth, the whole truth and nothing but the truth in the within-entitled cause;

That said deposition was taken down in shorthand by me, a disinterested person, at the time and place therein stated, and that the testimony of the said witness was thereafter reduced to typewriting, by computer, under my direction and supervision.

That before completion of the deposition, review of the transcript was [ ] was not [X] requested. If requested, any changes made by the deponent (and provided to the reporter) during the period allowed are appended hereto.

I further certify that I am not of counsel or attorney for either or any of the parties to the said deposition nor in any way interested in the event of this cause and that I am not related to any of the parties thereto.

DATED: February 9, 2009

Debra Allustiarti

DEBRA ALLUSTIARTI CSR, No. 10929

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I declare under penalty of perjury that the foregoing is true and correct. Subscribed at Sunnyvale California, this 24 day of March, 2009.

Signature of Witness

State of California
County of Santa Clara

Subscribed and sworn to (or affirmed) before me, Angela M. Wilcock, on this 24TH day of MARCH , 2009, by CHRISTOPHER SIMMONDS, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

(seal)

ANGELA M. WILCOCK
Commission # 1838733
Notary Public - California
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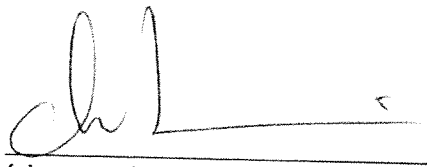

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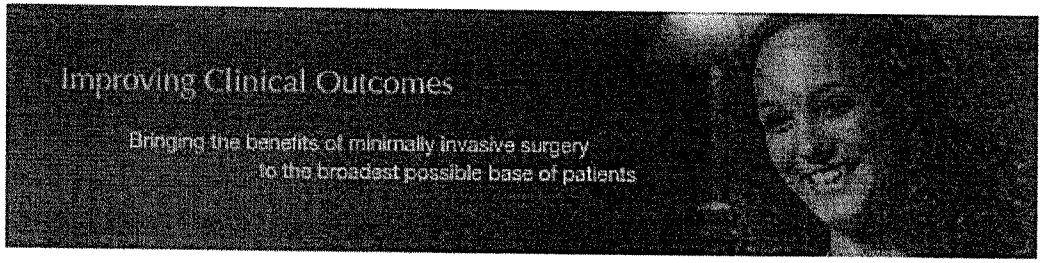

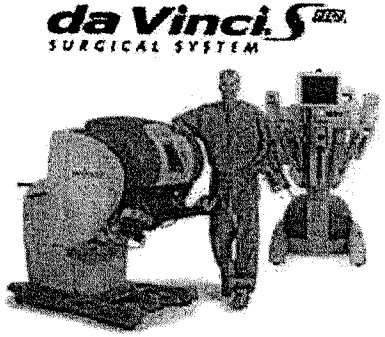

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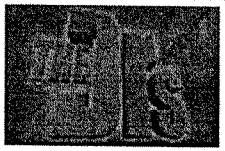

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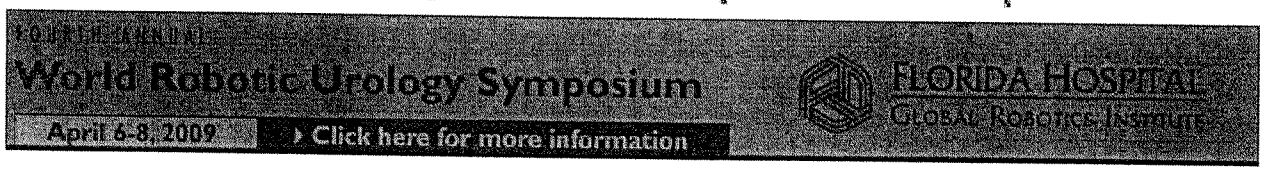

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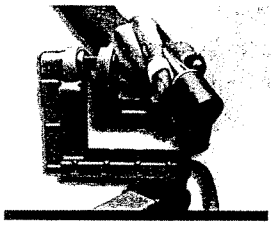
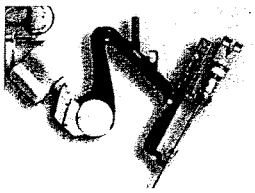
da Vinci®
Roux-en-Y Gastric Bypass Training Program

Stanford University Hospital

STANFORD
HOSPITAL & CLINICS
Stanford University Medical Center

EXHIBIT
Simmonds
15
1-27-09 SD

Opposition No. 91175319
Intuitive Surgical, Inc.

Course Agenda

Day One

Basic System Training: Sessions to be conducted by Intuitive Surgical training personnel at the Intuitive Surgical, Sunnyvale Headquarters.

8:00 AM - 8:30 AM	Course Objectives: Procedure Videos
8:30 AM - 12:00 PM	System Training • Porcine laboratory, interference avoidance, instrument change drills for patient-side surgeon • Surgical skill drills (inanimate models) • Grip strengths, transection, ligation, dissection, manipulation, intracorporeal suturing and knot tying
12:00 PM - 1:00 PM	Lunch/Port Placement Presentation
1:00 PM - 4:30 PM	Porcine Laboratory: • Port placement, surgical skill drills, procedure applications, troubleshooting
4:30 PM	Lab review/Q&A

Agenda

Day Two

Sessions conducted by Dr. Myriam Curet at Stanford University Medical Center and at the Intuitive Surgical, Sunnyvale Headquarters.

7:00 AM	Arrive at Stanford University Medical Center
7:00 AM - 8:00 AM	Presentation: *da Vinci* Roux-en-Y Gastric Bypass
8:00 AM - 12:00 PM	Live case observation: *da Vinci* Roux-en-Y Gastric Bypass
12:00 PM - 1:00 PM	Lunch
1:00 PM - 1:30 PM	Presentation: Stanford experience and preliminary results
1:30 PM - 5:00 PM	*da Vinci* Roux-en-Y Gastric Bypass lab

Disclosures:

No CME credit is available for this program. Laboratory materials, equipment and promotional support for this course are provided by Intuitive Surgical.

Faculty

Myriam Curet, MD, FACS

Associate Professor of Surgery

Director of the Minimally Invasive Surgery Program

Associate Director of the General Surgery Residency Program

Registration

***da Vinci* Roux-en-Y Gastric Bypass Training Program Fee**

$6,000 per team (two surgeons)

- Each program accommodates one team of two surgeons
- Fee covers all program instruction, materials and scheduled meals
- Attendees are responsible for their travel, lodging and additional meals

Dates

Program dates will vary according to procedure scheduling.

Location

Stanford Hospital & Clinics
300 Pasteur Drive
Stanford, California 94305

If you require special accommodations while at Stanford, please contact Karen Cockerill at 650-723-8603 before the start of the program.

To register, contact your Intuitive Surgical representative.

Your representative will coordinate your registration, secure your requested dates and assist with payment and travel arrangements.

For the name of your local representative,
inside the US call:
+1 888 409 4774

outside the US call:
+00800 46 88 78 74 or
+33 1 39 04 26 90

Travel & Accommodations

Travel, hotel and additional meals are the responsibility of the individual attendees. Stanford Hospital & Clinics is not responsible for travel arrangements. Please confirm registration with your Intuitive Surgical representative before hotel registration or the purchase of airline tickets.

Recommended hotel:

Grand Hotel
865 W El Camino Real
Sunnyvale, CA 94086
+1 877 477 5817

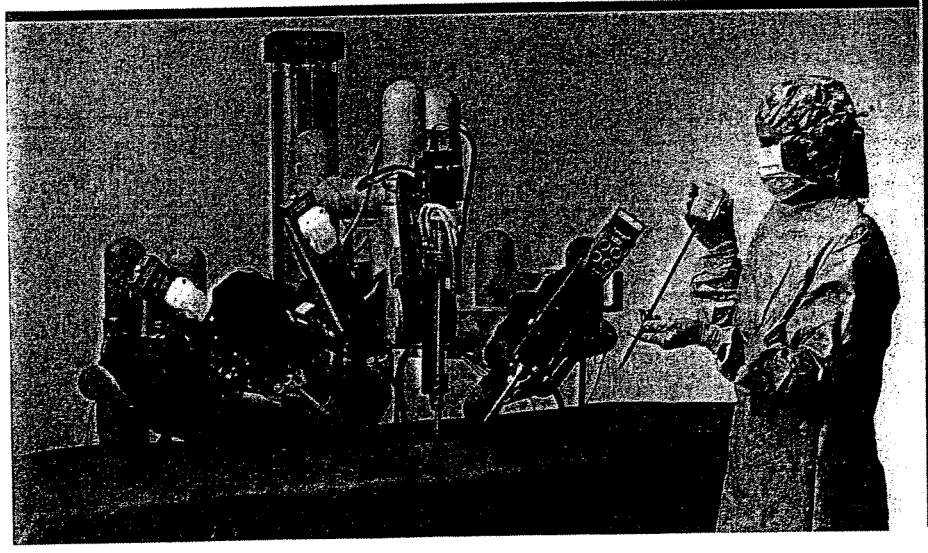
Air travel:

The nearest airport to Stanford Hospital & Clinics is Mineta San Jose International Airport, followed by San Francisco International.

About Stanford University Hospital & Clinics

Stanford University Hospital and Clinics is known worldwide for the advanced patient care provided by our staff - particularly for the treatment of rare, complex disorders in areas such as cardiac care, cancer treatment, neurology, neurosurgery, minimally invasive surgery and organ transplants. Throughout our history, we have pioneered medical advances that save lives and protect against disease. In recognition of our excellent care, our hospitals and physicians consistently rank among the top in the nation in surveys by consumers and health care professionals. As of 2006, U.S. News & World Report continues to recognize Stanford as one of "America's Best Hospitals."

Intuitive Surgical does not provide clinical training nor does it provide or evaluate surgical credentialing or train in surgical procedures or techniques. Intuitive Surgical trains only on the use of its products, such as the *da Vinci* Surgical System. As a result, Intuitive is not able to establish the accuracy of procedural content. This program presents the opinions of and techniques used by the surgical faculty and not those of Intuitive Surgical. Before performing any clinical procedure utilizing the System, physicians are responsible for receiving sufficient training and proctoring to ensure that they have the requisite training, skill and experience necessary to protect the health and safety of the patient. For technical information, including full cautions and warnings on using the *da Vinci* System, please refer to the System User Manual. While clinical studies support the use of the *da Vinci* Surgical System as an effective tool for minimally invasive surgery, individual results may vary. © 2006 Intuitive Surgical. All rights reserved. Intuitive, Intuitive Surgical, da Vinci, da Vinci S, EndoWrist and TilePro are trademarks or registered trademarks of Intuitive Surgical, Inc. All other company and product names are trademarks and properties of their respective owners.
PN 871246 Rev. A. 9/2006.



Overview

Experienced faculty will conduct live surgery, didactic and laboratory sessions to teach pre-, intra and post-operative techniques for performing totally robotic roux-en-Y gastric bypass with the *da Vinci*® Surgical System. Extensive hands-on sessions will enable participants to practice learned techniques. All participants are trained on the following:

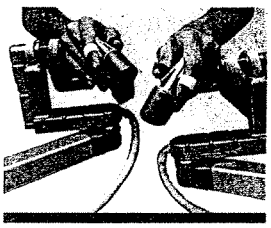
- Patient preparation and positioning
- *EndoWrist*® Instruments and components (functions and applications)
- Port placement location and strategy
- Procedural steps
- Surgical cart positioning
- Intracorporeal suturing and knot tying

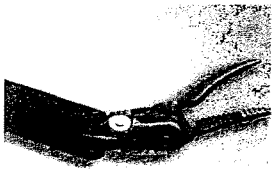
Target audiences for this course are bariatric and general surgeons with laparoscopic roux-en-Y experience who are interested in learning *da Vinci*® Roux-en-Y Gastric Bypass. Training includes didactics, video procedures, surgery observation and extensive hands-on laboratory sessions.

The training program is designed for a maximum of two surgeons. It is strongly recommended that participants schedule *da Vinci* cases within two weeks of their return from this program.

Objectives

- To familiarize the attendee with the basic principles of the *da Vinci* Roux-en-Y Gastric Bypass
- To understand the function and operation of the *da Vinci*® Surgical System during totally robotic roux-en-Y gastric bypass
- To demonstrate the technique of intracorporeal suturing and knot tying with robotic assistance
- To understand the patient selection, patient positioning, surgical approaches, techniques, indications and contraindications when performing *da Vinci* Roux-en-Y Gastric Bypass





Stanford Hospital & Clinics
300 Pasteur Drive
Stanford, California 94305

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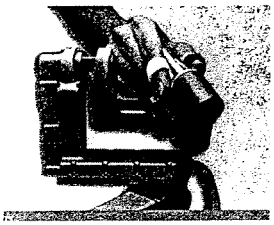
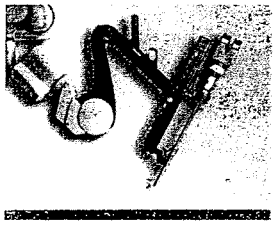
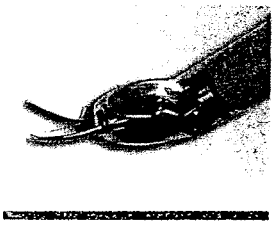
EXHIBIT 16

da Vinci® Prostatectomy Training Course

UCI College of Medicine

UCI

College of Medicine

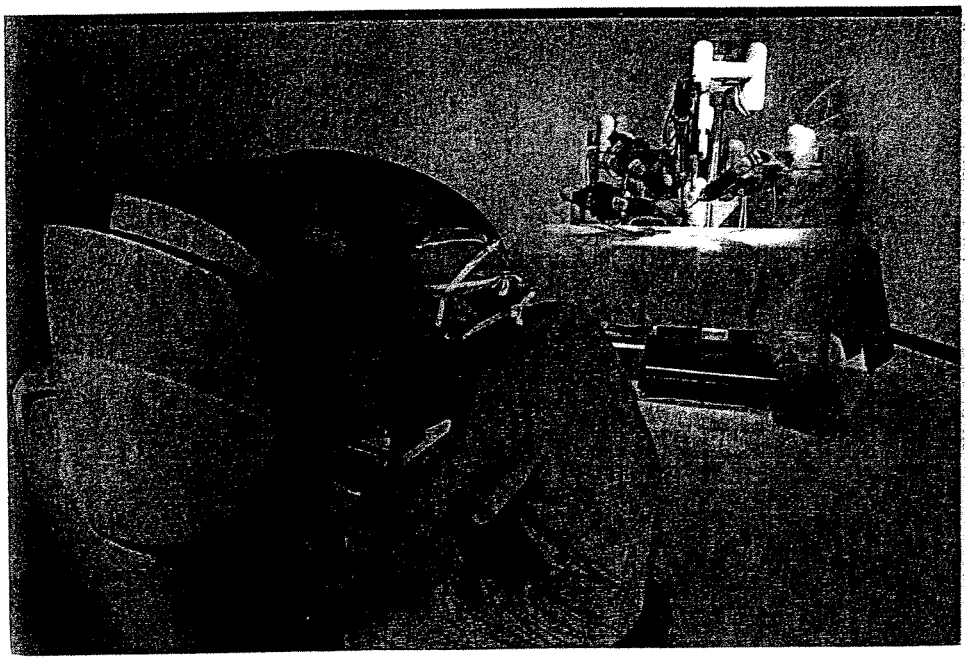
EXHIBIT
Simmonds
16
1-27-09WR

Opposition No. 91175319
Intuitive Surgical, Inc.

Course Agenda

Day One

8:00 AM	Arrival / Introduction
8:00 AM - 8:30 AM	Program Overview / Video Presentation
8:30 AM - 10:00 AM	System Overview & Draping of System
10:00 AM - 10:30 AM	System Skills: Patient Positioning, Port Placement, Surgical Cart Positioning
10:30 AM - 12:00 PM	Laboratory Session (Animate Model) Renal Surgical Skills drills
12:00 PM - 1:00 PM	Lunch
1:00 PM - 4:00 PM	Laboratory Session (Animate Model) Pelvic Surgical Skill Drills
4:00 PM - 4:30 PM	System Shutdown Sequence / Emergency Conversion / Wrap Up / Q&A
4:30 PM	Adjourn



Course Agenda

Day Two

7:30 AM	Arrival
7:30 AM - 10:30 AM	Live Case Observation
10:30 AM - 12:00 PM	Laboratory Session (Animate Model)
	Renal Surgical Skills drills
12:00 PM - 1:00 PM	Lunch
1:00 PM - 4:00 PM	Laboratory Session (Animate Model)
	Pelvic Surgical Skill Drills
4:00 PM - 4:30 PM	System Shutdown Sequence / Emergency Conversion / Wrap Up / Q&A
4:30 PM	Adjourn

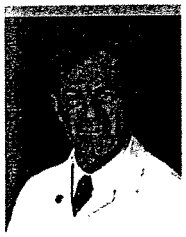
Agenda subject to change with procedure schedule.

Disclosures:

It is the policy of the University of California Irvine, College of Medicine that the faculty and sponsors disclose real or apparent conflict of interest relating to the topics of this educational activity and disclose discussion of unlabelled/unapproved uses of drugs or devices during their presentation(s). Detailed disclosures will be made in writing in the activity handout materials.

Faculty

Thomas E. Ahlering, MD
Associate Professor of Urology
Director, Urological Oncology



Ralph V. Clayman, MD
Professor and Chairman
Department of Urology

Elspeth M. McDougall, MD, FRCSC
Professor of Urology
Director, Yamanouchi Center for
Urological Education

Accreditation

Qualifications of Trainees

- Certification by the American Board of Urology or Board Eligible
- Temporary UCI Hospital Privileges for observation only
- Review and reading of the *da Vinci* didactic teaching module.

Accreditation Statement

The University of California Irvine, College of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Designation Statement

The University of California Irvine, College of Medicine designates this educational activity for a maximum of 24.75 credits in Category 1 towards the AMA Physician's Recognition Award. Each physician should claim only those credits that he/she actually spent in the educational activity.*

**While there are CME credits designated for participation in this course, this does not imply certification of skills acquisition.*

Registration

da Vinci® Prostatectomy Robotic Training Program Fee

$7,000 per team (two surgeons)

- Each program accommodates two teams of two surgeons
- Fee covers all program instruction, materials and scheduled meals
- Attendees are responsible for their travel, lodging and additional meals

Dates

Program dates will vary according to procedure scheduling.

Location

University of California Irvine Medical Center, Building 55, Lower Level,
Astellas Center for Urological Education. 101 The City Drive
Orange, California

If you require special accommodations while at UCI Medical Center, please contact Cynthia Shell at +1 714 456 3429 or cshell@uci.edu before the start of the program.

Travel & Accommodations

Travel, hotel and additional meals are the responsibility of the individual attendees. UCI Medical Center is not responsible for travel arrangements. Please confirm registration with your Intuitive Surgical representative before hotel registration or the purchase of airline tickets.

Recommended hotel:

Doubletree Hotel Phone: 714-634-4500
100 The City Drive, Orange, California 92868
Special UCI Rates: $95 One Bedroom, Single or Double (plus tax)
Ask the Registration Desk to "key in" UCI Medical Center to retrieve the rooms at the UCI Medical Center Corporate Discount rate.

Ayres Inn Phone: 714-978-9168
3737 W. Chapman Avenue, Orange, California 92868
Special UCI Rates: $75 One Bedroom, Single or Double (plus tax)

Air travel:

The nearest airport to UCI Medical Center is John Wayne Airport in Irvine or the Long Beach Airport. These airports are about a-30 minute drive to the hotels.

To register, contact your Intuitive Surgical representative.

Your representative will coordinate your registration, secure your requested dates and assist with payment and travel arrangements.

For the name of your local representative,
inside the US call:
+1 888 409 4774

outside the US call:
+00800 46 88 78 74 or
+33 1 39 04 26 90

Mission Statement

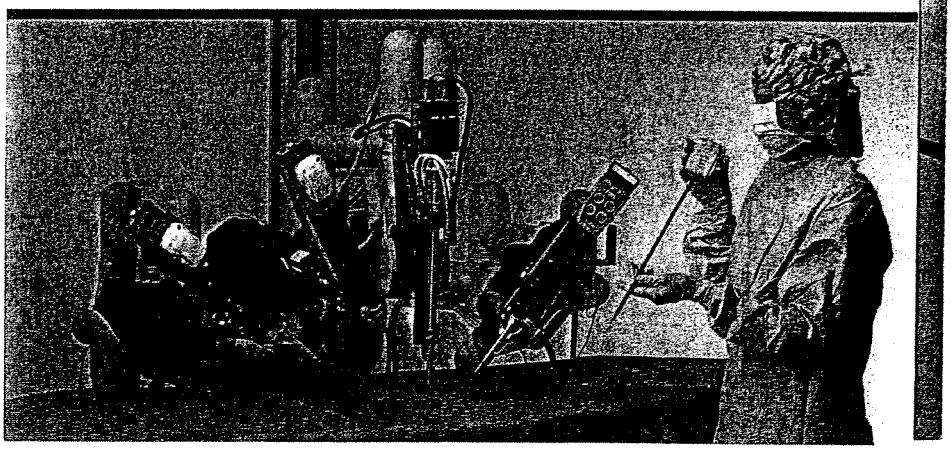
The UCI School of Medicine is dedicated to advancing the knowledge and practice of medicine for the benefit of society. This mission is achieved through programs of excellence in:

Education: The School of Medicine is committed to provide educational programs of the highest quality to medical students, MD./Ph.D. and Mad./MBA. students, residents, fellows, allied health, graduate academic students, practicing physicians and other health care professionals. Educational programs are offered along the continuum of medical education with programs in undergraduate, graduate and continuing medical education. These programs emphasize the most current knowledge in the health sciences and reflect the changing practice of medicine. Further, the School of Medicine's educational programs are designed to stimulate lifelong self-learning and critical inquiry and to exemplify those human values necessary to fulfill the professional commitments of a career in the health sciences.

Research: Excellence in research is an essential feature of the School of Medicine. Therefore, the College is committed to developing and maintaining research programs in the health sciences that seek to advance basic scientific knowledge and the prevention, diagnosis and treatment of human illness.

Clinical Care: Recognizing its responsibility to meet the educational needs of students and the diverse needs of the patient community, the School of Medicine is committed to programs of clinical excellence across the spectrum of patient care disciplines.

Service to the Public: As a publicly assisted institution, the School of Medicine is committed to serve the community as a vital resource of expertise and knowledge. The College further serves the public through the training of health professionals whose backgrounds reflect California's ethnic and cultural diversity and whose professional careers address California's health care needs.



Overview and Target Audience

The target audience for the *da Vinci*® Prostatectomy Training Course consists of board-eligible/certified urologists who should have attended at least one prior basic laparoscopy course and who have submitted the certificate for that course. This postgraduate laparoscopy course designed for urologists is entirely devoted to the transfer of the advanced laparoscopic and robotic skills necessary for performing the robot-assisted laparoscopic prostatectomy.

Robot-assisted surgery is one of the leading examples of the expansion of technology in MIS surgery. In an effort to meet the educational needs posed by this challenge in minimally invasive robotic surgical education, The University of California Irvine, Department of Urology, has designed the *da Vinci* Prostatectomy Robotic Training Course for urologists. Lectures, case observation and hands-on animate and cadaveric laboratories with the *da Vinci*® Surgical System will be used to create a comprehensive learning experience.

Objectives

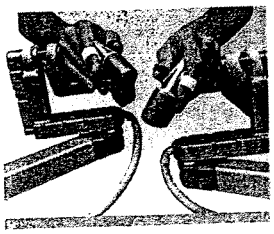
Following completion of this course, participants should be able to:

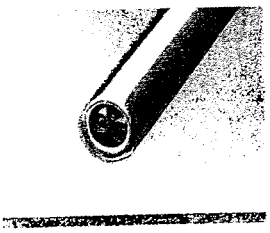
1. Cite the patient selection criteria and indications and contraindications for robot-assisted laparoscopic prostatectomy

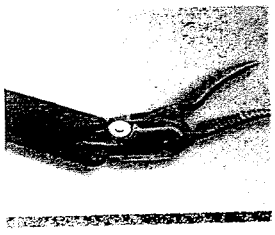
2. Discuss patient positioning, port placement, surgical cart positioning and instrumentation for robot-assisted laparoscopic prostatectomy

3. Troubleshoot the operation of the *da Vinci* Surgical System

Intuitive Surgical does not provide clinical training, nor does it provide or evaluate surgical credentialing or train in surgical procedures or techniques. Procedure descriptions are provided by independent surgeons, who are not Intuitive Surgical employees. As a result, Intuitive Surgical is not responsible for procedure descriptions. This program presents the opinions of and techniques used by the surgeon faculty and not those of Intuitive Surgical. Depiction of third-party products does not imply any endorsement by Intuitive Surgical regarding safety, efficacy, or indicated use. Before performing any da Vinci procedure, physicians are responsible for receiving sufficient training and proctoring to ensure that they have the skill and experience necessary to protect the health and safety of the patient. For technical information, including full cautions and warnings on using the da Vinci System and third-party products, please refer to the product manual. While clinical studies support the use of the da Vinci Surgical System as an effective tool for minimally invasive surgery, individual results may vary. © 2007 Intuitive Surgical. All rights reserved. Intuitive, Intuitive Surgical, da Vinci, da Vinci S, EndoWrist and TilePro are trademarks or registered trademarks of Intuitive Surgical, Inc. All other company and product names are trademarks and properties of their respective owners. PN 871299 Rev. B 2/2007







UCI College of Medicine
Department of Urology, Astellas Center for Urological Education

101 The City Drive
Building 55, Room 304, RT 81
Orange, CA 92868

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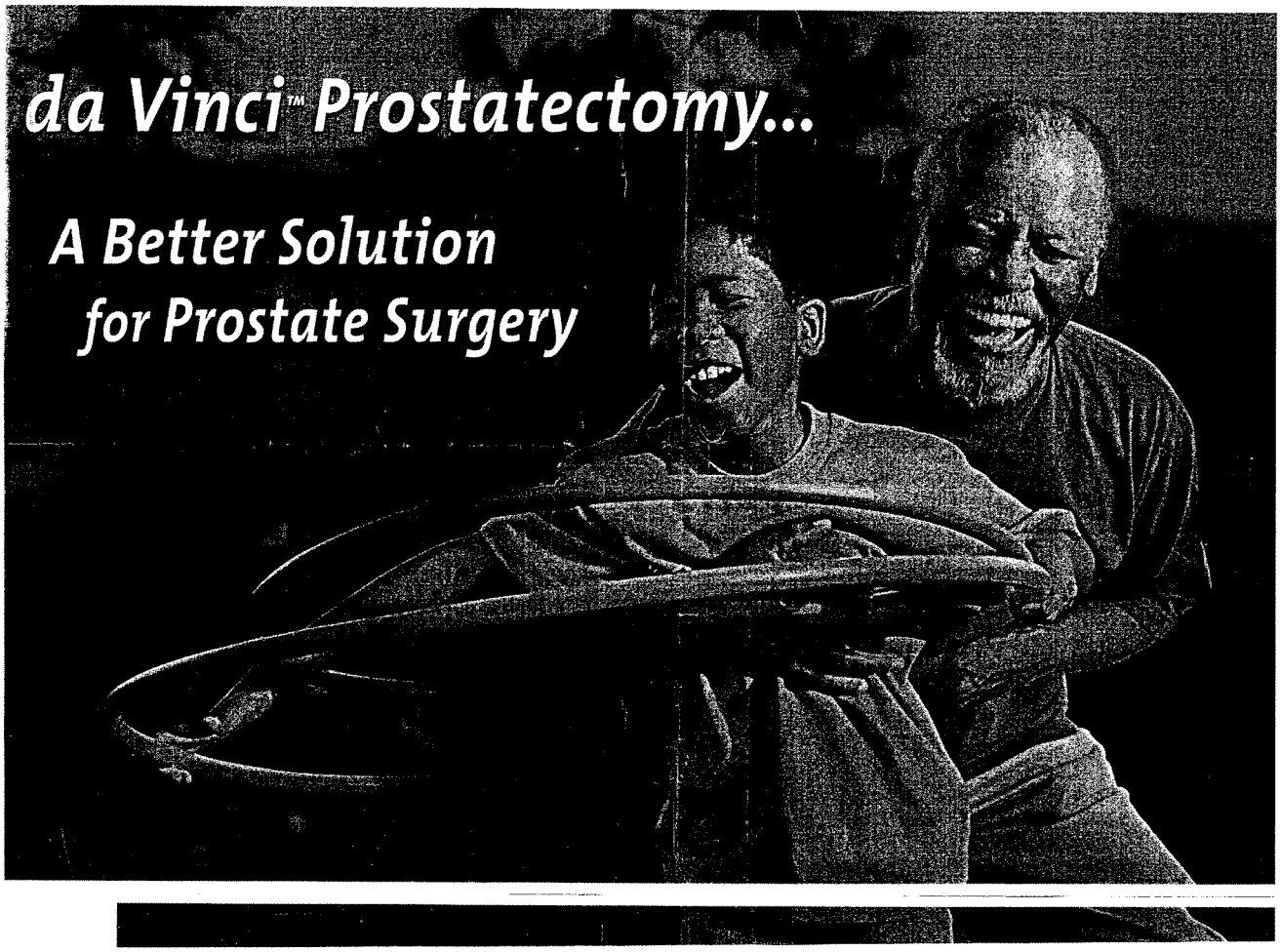
EXHIBIT 17


da Vinci™ Prostatectomy...
A Better Solution
for Prostate Surgery

da Vinci Prostatectomy

If surgery is required to treat your prostate cancer you may be a candidate for a new, less invasive approach to radical prostatectomy called the da Vinci Prostatectomy.

*For most patients, da Vinci Prostatectomy offers substantially less pain and a much shorter recovery. Recent studies suggest that da Vinci Prostatectomy may also offer improved cancer control and a lower incidence of impotence and urinary incontinence.**

Ask your doctor if you're a candidate for da Vinci Prostatectomy.

Are you a candidate for the latest treatment option for prostate cancer?

Your doctor may be able to offer you a new minimally invasive procedure.

For additional information visit *www.daVinciProstatectomy.com*

EXHIBIT
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* Referenced studies available upon request - P/N-DVP033604-10

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Opposition No. 91175318
Intuitive Surgical, Inc.

ISI 001147

EXHIBIT 18

Reprinted from

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UROLOGY

VOLUME 63 NUMBER 5 MAY 2004

ROBOT-ASSISTED VERSUS OPEN RADICAL PROSTATECTOMY: A COMPARISON OF ONE SURGEON'S OUTCOMES

THOMAS E. AHLERING, DAVID WOO, LOUIS EICHEL, DAVID I. LEE, ROBERT EDWARDS, AND DOUGLAS W. SKARECKY

EXHIBIT
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1-27-09 DR

ISI 000752

Official Journal of the Societe Internationale d'Urologie

Opposition No. 91175319
Intuitive Surgical, Inc.

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ROBOT-ASSISTED VERSUS OPEN RADICAL PROSTATECTOMY: A COMPARISON OF ONE SURGEON'S OUTCOMES

THOMAS E. AHLERING, DAVID WOO, LOUIS EICHEL, DAVID I. LEE, ROBERT EDWARDS, AND DOUGLAS W. SKARECKY

ABSTRACT

Objectives. To compare internally one surgeon's standard open radical prostatectomy (RP) and robot-assisted laparoscopic RP (RLP) results. RLP, like standard laparoscopic RP, ultimately needs to produce similar or improved results compared with standard RP techniques. Little information comparing RLP with standard RP exists.

Methods. As an internal control, we selected the last 60 standard RPs performed by one surgeon (T.A.) before initiating RLPs. For the RLP group, we selected cases 46 to 105 ($n = 60$) after the learning curve had adequately matured. We compared the clinical characteristics, perioperative results, and early clinical outcomes.

Results. The study and control groups had similar clinical characteristics (age, body size, preoperative prostate-specific antigen level, clinical stage, and Gleason score). No statistically significant differences were found between groups for prostate size, pT stage, Gleason score, or margin status (16.7% versus 20%; $P =$ nonsignificant). The RLP group had a statistically significant advantage for estimated blood loss (103 versus 418 mL), postoperative hemoglobin change (1.6 versus 3.3 mg/dL), and hospital stay (1.02 versus 2.2 days). Complete continence (0 pads) at 3 months of follow-up and the rate of postoperative complications were similar for the RLP and RP groups (76% versus 75% and 6.7% versus 10%, respectively).

Conclusions. We present the results of RLP and RP performed by one surgeon. With only a 100-case experience, RLP had oncologic and urinary outcomes that were at least equal to those after RP. RLP offers the benefits of minimally invasive surgery and does not compromise clinical or pathologic outcomes. UROLOGY **63**: 819–822, 2004. © 2004 Elsevier Inc.

Radical retropubic prostatectomy (RP) is an established technique with a long record of reported outcomes.[1–3] For a minimally invasive approach to be adopted, it must provide at least equivalent oncologic and functional results to the reference standard surgical therapy. Laparoscopic RP is a technically demanding procedure with a limited number of skilled laparoscopists specifically trained in the technique. For most urologists, the learning curve is unacceptable. Recently, the da Vinci robotic interface has been shown to significantly shorten the laparoscopic learning curve.[4,5]

Little information is available comparing robot-assisted laparoscopic prostatectomy (RLP) with standard RP. Menon *et al.*[6] and Tewari *et al.*[7] reported the experience at one institution between standard RP performed by one group of open surgeons with that of a different group of surgeons performing RLP. Although the study was prospective and covered the same period, the question remained as to how one surgeon would do with the two approaches. The purpose of this report was to compare the results of a fellowship-trained oncologic surgeon with 18 years of experience (T.A.) who had recently learned the RLP approach. After analyzing our previously reported clinical experience[5] (cases 1 to 45), we believed the RLP learning curve was sufficiently mature that cases 46 to 105

From the Department of Urology, University of California, Irvine, Medical Center, Orange, California

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0090-4295/04/$30.00
doi:10.1016/j.urology.2004.01.038

ISI 000753

9.1% in 44 open RP cases. Although the PSA data were immature, the 3-month PSA nondetectable rate (less than 0.1 ng/mL) was 5.3% for RP versus 5.5% for RLP. Sexual function was not assessed, because of insufficient follow-up in the RLP group.

No conversions were required to open RP in the RLP procedures. Neither group had a complication, such as bleeding, that required a return to the operating room. In the RLP group, four complications occurred including one pulmonary embolism, one urine leak that responded to conservative treatment, one prolonged ileus, and one delayed episode of bleeding (14 days postoperatively and 7 days after catheter removal) that was cauterized cystoscopically. The RP group had 6 patients with complications: deep venous thrombosis in 3, a pulmonary complication secondary to asbestosis that responded to conservative therapy after 8 days of hospitalization in 1, and encroachment on the orifice necessitating ureteral stent placement at the initial operation in 2 patients. Both stents were removed at 3 weeks and the patients healed without further complications or intervention.

COMMENT

With their pioneering work, Guillonneau and Vallancien[10] have shown that a minimally invasive approach to RP is possible. However, most urologists do not have sufficient laparoscopic skills to undertake such a technically demanding procedure. Reports by Menon *et al.*[4] and our group[5] have shown that robot assistance can bridge the gap for surgeons experienced in the open approach who wish to transfer their skills to the laparoscopic medium. To date, two prospective reports, from the same investigators and institution, have compared RLP with RP. However, these reports compared the outcomes of several different open surgeons with the outcomes of one robotic surgeon.[6,7] A comparison of two techniques from different surgeons invites bias issues with regard to variability of training and technique plus surgeon experience and skill. The benefit of the present study was the direct comparison of an experienced, fellowship-trained oncologic surgeon performing both procedures. For practical purposes, using one's own experience as an internal control should minimize the biases of training, experience, and skill. However, even with an internal comparison, the preponderance of experience of 18 years with the open procedure potentially benefited the RP group's results.

In the present study, both groups were well matched for standard clinical parameters such as age, body mass index, PSA level, and so forth (Table I). Additionally, the clinical stage and Gleason score were well matched (Table II). Overall, the RLP and RP groups had similar clinical outcomes, including operative time, pathologic stage and positive surgical margin rate, catheterization interval, blood transfusion rate, postoperative complication rate, and 3-month continence rate. These findings contrast with those of Tewari and associates[7] who described significantly better results statistically for the robotic approach for margin rate, catheterization interval, transfusion rate, postoperative complication rate, and return of continence. It is possible that the difference in the outcomes in their study was related more to surgeon skill and experience than to the surgical approach. Two studies have compared RP with laparoscopic RP[11,12]; however, the laparoscopic approach was standard and not robotic. One study, a prospective comparison between different surgeons by Anastasiadis and associates,[11] and another study that was an internal comparison of three surgeons by Rassweiler and associates[12] reported much the same findings as we have. They noted similar surgical margin rates, complication rates, and continence rates. However, as experience with the robotic technique grows and technological advances in equipment accrue, outcomes would be expected to improve.

TABLE III. *Incidence of positive surgical margins*

	Robotic (%)	Open (%)
Positive surgical margin	10 (16.7)	12 (20)
pT2a + 2b	2/44 (4.5)	4/44 (9.1)
pT3a/3b + T4	8/16 (50)	8/16 (50)
Low risk*	1/20 (5)	3/29 (10.3)
High risk	9/40 (22.5)	9/31 (29)

* *Less than 3 positive cores, prostate-specific antigen level <10 ng/mL, Gleason score <8.*

Additionally, the study by Tewari *et al.*[7] did not report the surgical margin status for the RP group in the same fashion as for the RLP group. In the RP group, the positive margin rate was 23%, and margins were reported using the standard method of the presence of tumor at the inked margin. The margin rate was 9% in the RLP group; however, positive margins were established by frozen and permanent section analysis of apical soft-tissue biopsies. It is possible that the RP group may have had an equally low margin status if they had used similar apical section margins. Alternatively, the RLP group may have had equally greater margin rates if reported in the standard fashion. In the present study, no statistically significant difference was found between the two groups for positive surgical margin rates (Table III); however, a trend was noted for fewer positive surgical margins in high-risk patients in the robotic group (high risk defined as more than three cores or Gleason score greater than 7 or PSA greater than 10 ng/mL). Furthermore, in patients with organ-confined tumors and

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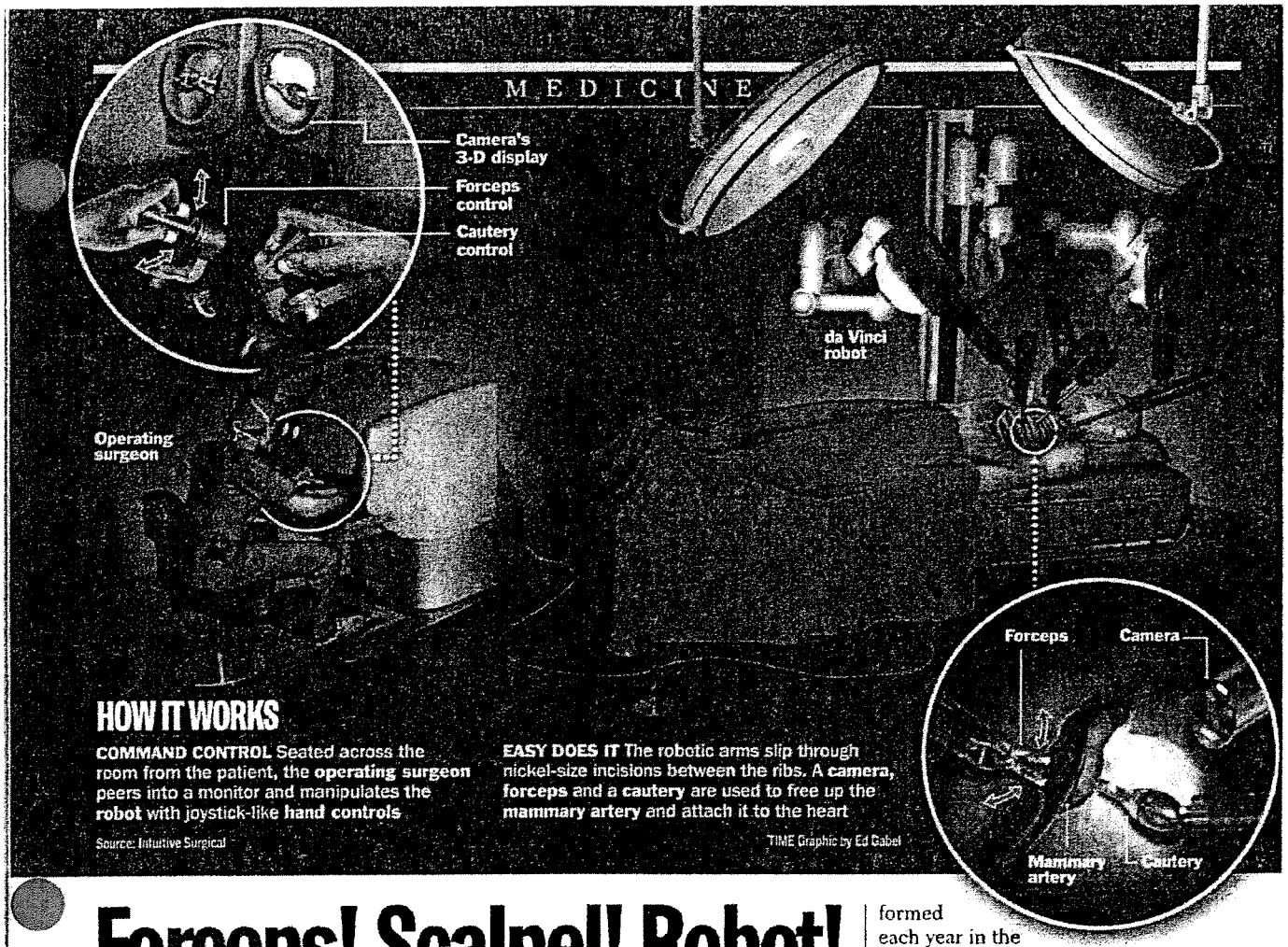

HOW IT WORKS

COMMAND CONTROL Seated across the room from the patient, the **operating surgeon** peers into a monitor and manipulates the **robot** with joystick-like **hand controls**

EASY DOES IT The robotic arms slip through nickel-size incisions between the ribs. A **camera**, **forceps** and a **cautery** are used to free up the **mammary artery** and attach it to the heart

Source: Intuitive Surgical

TIME Graphic by Ed Gabel

Forceps! Scalpel! Robot!

The first FDA-approved robotic bypass operation promises a faster recovery—with no ugly scar

By **ANITA HAMILTON** COLUMBUS

"WE'RE GOING TO TAKE REAL GOOD care of you, you know that?" says Dr. Robert Michler, as he fixes his dark blue eyes on the 79-year-old patient to whom he's about to give a heart bypass. "I know that," answers Paul Oaks with a placid smile, as he lies on a gurney in a thin gown and floppy hospital cap.

Oaks has good reason to trust his surgeon. With more than 3,000 open-heart operations and some 400 transplants under his belt, Michler, chief of cardiothoracic surgery at Ohio State University Medical Center in Columbus, is no novice. Then again, today's procedure will be no ordinary bypass. It will be one of the first in the country to replace the surgeon's hands with 2-ft.-long robotic arms. The metallic limbs will enter the patient's body through the narrow gaps between the ribs, cutting holes no bigger than a nickel—a far cry from the usual 6-in. to 8-in. incisions sawed straight through the breastbone. Besides eliminating a can't-miss scar, the robotic approach promises to reduce the trauma to the body, speed recovery and minimize the risk of infection.

"There is no question in my mind that the future of heart surgery is in robotics," says Michler, whose team at OSUMC headed up the clinical trials that led this spring to the first Food and Drug Administration approval of a robotic partial-bypass procedure. Originally studied in the late 1950s as a way for Army surgeons to operate remotely on wounded soldiers on the battlefield, robotic surgery is just finding its way into leading medical centers across the U.S. With more than 500,000 heart-bypass operations performed each year in the U.S. alone, surgeons are eager for ways to improve the procedure.

Back in the operating room, Michler prepares for the first incision—a small round hole through which the robotic arm will enter the left side of Oaks' chest. First goes the camera, then the miniature forceps and finally a tool called a cautery, which will be used to isolate the artery that the surgeons plan to attach to the heart to restore proper blood flow. As Michler steps back, the robot springs to life. Looking like the legs of an oversize metallic spider, the long black arms start to gyrate—both outside and deep inside the patient's body.

This robot—a da Vinci model made by Intuitive Surgical of Mountain View, Calif.—doesn't exactly have a mind of its own. About 15 ft. away from the operating table, Dr. Randall Wolf sits hunched over a console that looks as if it came straight out of a video-game arcade. Instead of blasting imaginary bad guys, Wolf is peering into a 3-D display that gives him a surprisingly clear view, magnified up to 10 times, inside the patient's chest. He can

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KINDER, GENTLER: Dr. Michler slips the robot's camera into Oaks' chest

DOUG MARTIN FOR TIME

see the top of the beating heart, the bulge of every rib and the outline of the artery he needs to reposition. As a dozen nurses, technicians and doctors stand motionless in the darkened operating room gazing at the overhead monitors, Wolf places his thumbs and forefingers into small controls inside the console. Then, moving his hands much as he would if he were actually holding the instruments, he shows the robot how to grab a piece of flesh with the forceps and begin peeling it away from the chest wall.

An hour later, several inches of the artery are dangling from the chest. While Michler and his team have the go-ahead from the FDA to attach the artery robotically to the beating heart, Michler's team is waiting for a better instrument to stabilize a small area on the heart so they can more precisely attach the artery. But even though they will finish the job by hand today, there's no need for a giant incision. Instead, they will work between the ribs in a hole no wider than a tennis ball to reattach the artery. About five hours after the patient was wheeled into the operating room, Michler is back with Oaks' family, giving them the good news.

While so far only this bypass procedure has received the FDA's blessing, trials are under way to robotically repair the heart's valves, place pacemaker wires and stabilize irregular heartbeats. In Canada, a rival system from Computer Motion in Santa Barbara, Calif., is being tested for fetal-heart surgery. Douglas Boyd, who heads the National Center for Advanced Surgery and Robotics in London, Ont., believes that robots' minimally invasive techniques could vastly improve fetal surgery's current 90% failure rate, which he says is primarily a result of the trauma placed on the womb by traditional surgical techniques. "Robots aren't just million-dollar sewing machines," says Boyd. "They are bringing a real revolution in heart surgery."

Paul Oaks didn't need a revolution. He just wanted to get back to Rachel, his wife of 59 years, and return to his home-repair business in De Graff, Ohio. "I'm not going to sit around," he said, wide awake the morning after surgery. Not to worry. Oaks went back to work last Monday, just three weeks after his operation. ■

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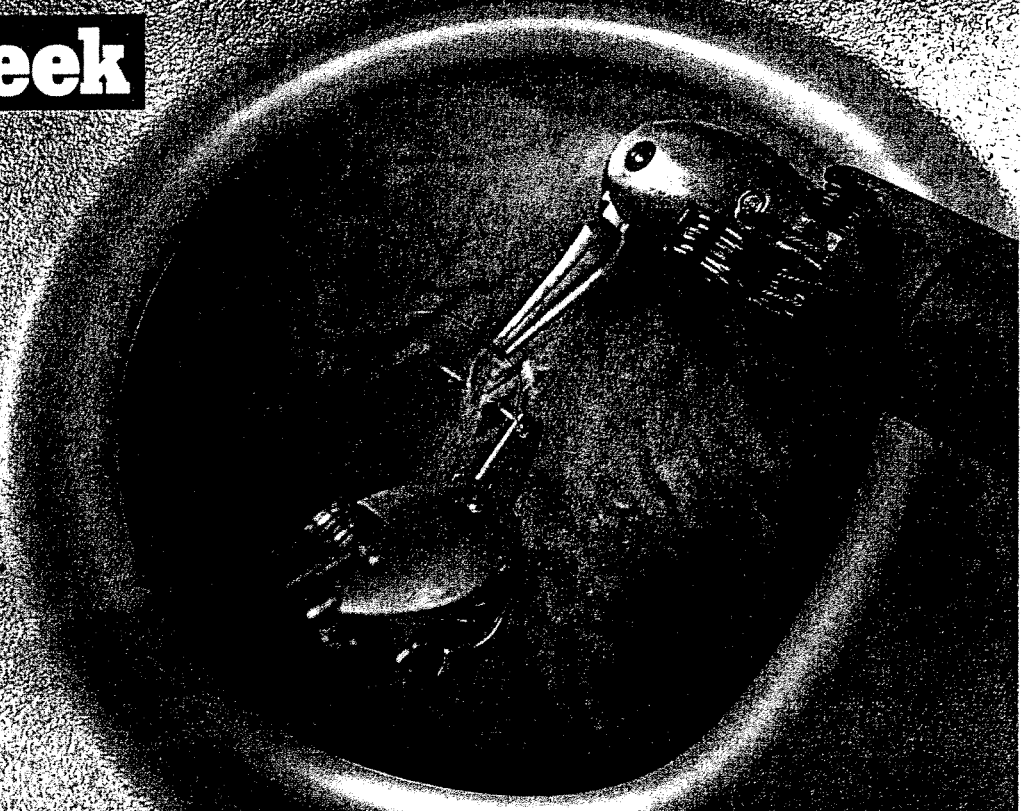
Health for Life

Newsweek



Cutting Edge

Medical progress is measured in many ways. As robotic surgery comes of age, Katrina's victims struggle to find the most basic care. A look ahead.

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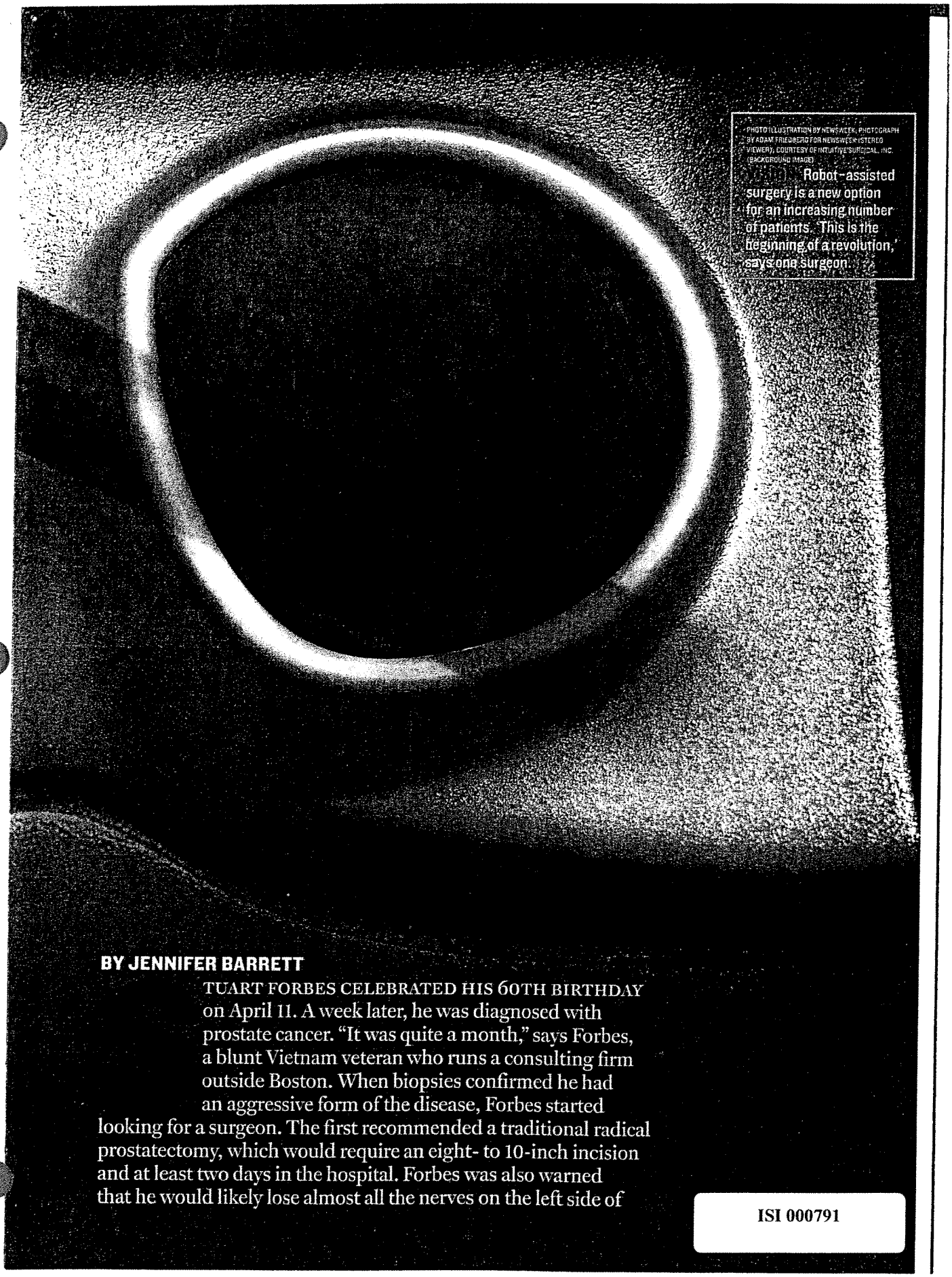

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Robot-assisted surgery is a new option for an increasing number of patients. 'This is the beginning of a revolution,' says one surgeon.

BY JENNIFER BARRETT

STUART FORBES CELEBRATED HIS 60TH BIRTHDAY on April 11. A week later, he was diagnosed with prostate cancer. "It was quite a month," says Forbes, a blunt Vietnam veteran who runs a consulting firm outside Boston. When biopsies confirmed he had an aggressive form of the disease, Forbes started looking for a surgeon. The first recommended a traditional radical prostatectomy, which would require an eight- to 10-inch incision and at least two days in the hospital. Forbes was also warned that he would likely lose almost all the nerves on the left side of

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the prostate, which could permanently affect his sexual function. "I thought, 'I need to really look at all my options,'" says Forbes. He considered high-intensity focused ultrasound ablation, a relatively new technology that's been used in Europe. But it's expensive and would require transatlantic trips. He looked into various forms of radiation, as well as proton-beam therapy. Then, in June, his girlfriend took him to a symposium on robotic surgery. "I saw the machine and how it worked," remembers Forbes. "It was just incredible. I said, 'That's it.'"

In August, Dr. Ashutosh Tewari, director of robotic prostatectomy at NewYork-Presbyterian Hospital/Weill Cornell, removed Forbes's walnut-size prostate and lymph nodes and reattached his bladder to his urethra without once putting his hands inside the patient. Using Intuitive Surgical's da Vinci robotic system and operating through five tiny incisions, Tewari conducted the entire procedure from across the room. He sat at a console and turned two knobs to remotely manipulate tiny surgical instruments attached to adjustable robotic arms. Forbes was walking within hours of his surgery and was discharged the next day. He compares the discomfort from the largest incision (about two inches long, and the only one to require stitches) to a bad pimple. By midweek he was walking three miles daily. In 10 days he was back at work. After three weeks he was playing golf again; by late October he'd regained normal urinary, and most sexual, function. "I'm about as excited as anyone can be about this procedure," he says.

Using robots to perform surgery once seemed a futuristic fantasy. Not anymore. An estimated 36,600 robotic procedures will be performed this year—from heart-bypass surgeries to kidney transplants to hysterectomies. That's up nearly 50 percent from last year, and analysts predict the figure will nearly double in 2006 to more than 70,000 procedures. Since the da Vinci was approved by the Food and Drug Administration in July 2000 (the only robotic system to get the FDA nod), about 350 of the units have been purchased, including 30 in the last quarter alone, at about $1.3 million apiece. Surgeons who use the system have found that patients have less blood loss and pain, lower risk of complications, shorter hospital stays and quicker recovery times than those who have open surgery—and even, in many cases, laparoscopic procedures.

Robotic surgery patients bleed less and leave the hospital sooner.

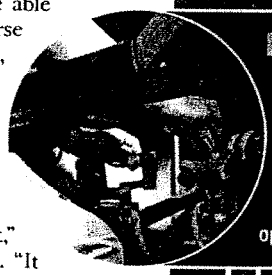
The robotic system has already transformed the field of prostate surgery, for which it was approved in May 2001. That year it was used in less than 1 percent of all prostatectomies. This year more than 20 percent will be done with the robot. And that figure is expected to double next year. "It's becoming the standard of care for prostatectomies," says Dr. Santiago Horgan, director of minimally invasive and robotic surgery at the University of Illinois at Chicago (UIC).

The first major study to compare open and robotic prostatectomies was published in the British Journal of Urology in 2003 by Dr. Mani Menon, head of the Vattikuti Urology Institute at Detroit's Henry Ford Hospital. (The hospital has now done about 2,050 of the robotic procedures—more than any other in the nation.) The study of 300 patients found that those who had open surgery lost five times as much blood, had four times the risk of complications and remained in the hospital more than three times as long as those who had robotic surgery. Robotic-surgery patients had a 14 percent higher rate of cancer removal and, on average, regained urinary function in about a month and a half—four times as fast as open-surgery patients. Also, robotic patients were able to have sexual intercourse again in about 11 months, while half of the open-surgery patients had not regained full sexual function even two years later. The response to the findings was skeptical at best. "They didn't believe any of it," Menon says of some peers. "It just seemed too good to be true."

But a year later, Dr. Thomas Ahlering, chief of urological oncology at the University of California, Irvine, Medical Center, published similar findings in the journal

The Robot Is In

The da Vinci Surgical System is finding a home in ORs across the country, including NewYork-Presbyterian Hospital/Columbia University Medical Center. During an operation the surgeon peers into two full-color screens—one for each eye—that magnify the field 10 times. Because the image is 3-D, the doctor feels as if he is working inside the patient when he is actually 8 feet away.



Remote Control

The surgeon manipulates the instruments with two knobs that he squeezes, castanet style. This dual-control design effectively renders surgeons ambidextrous: right- and left-handers can now operate using both hands.

PHOTOGRAPH BY ADAM FRIEDBERG FOR NEWSWEEK

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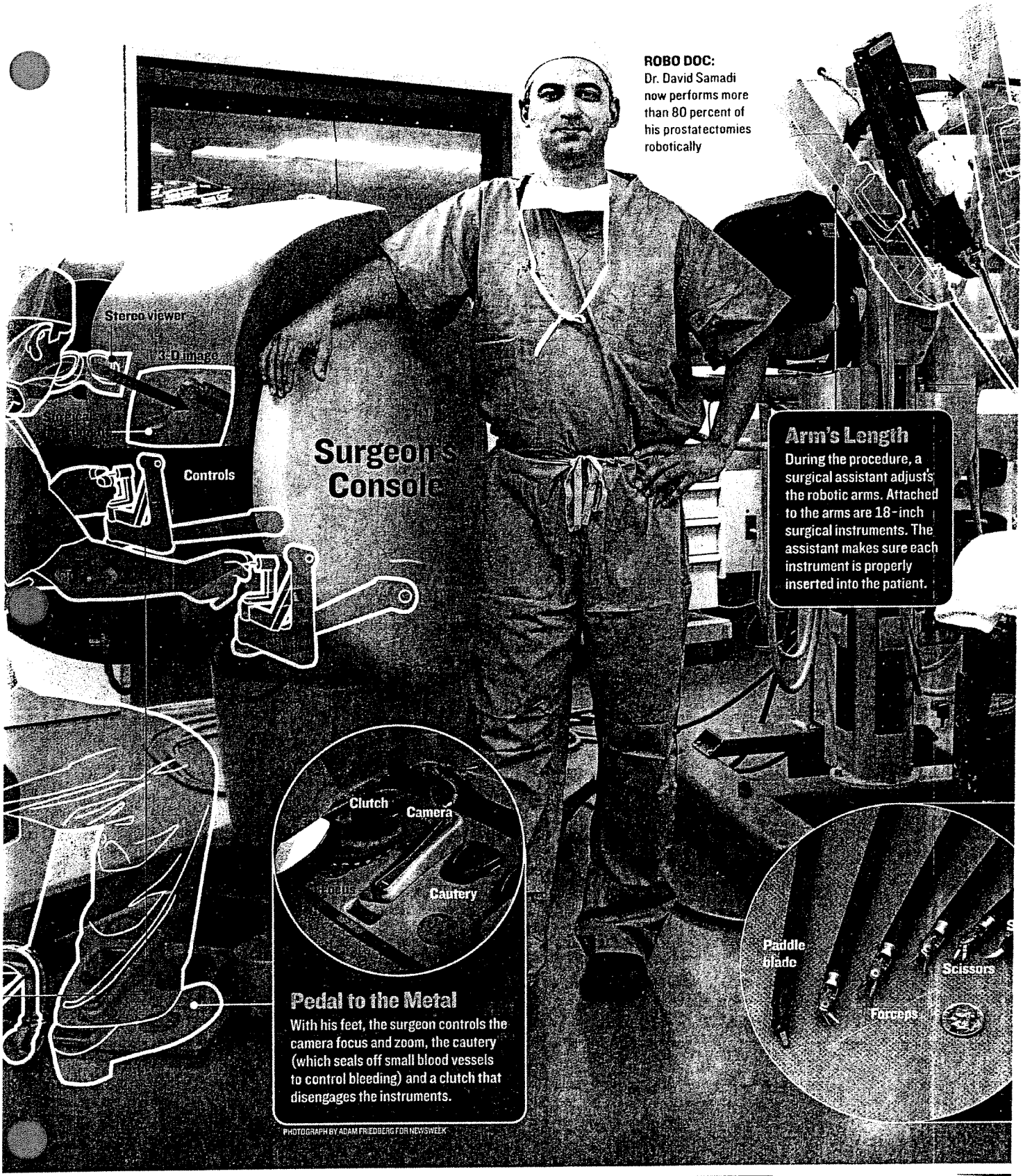

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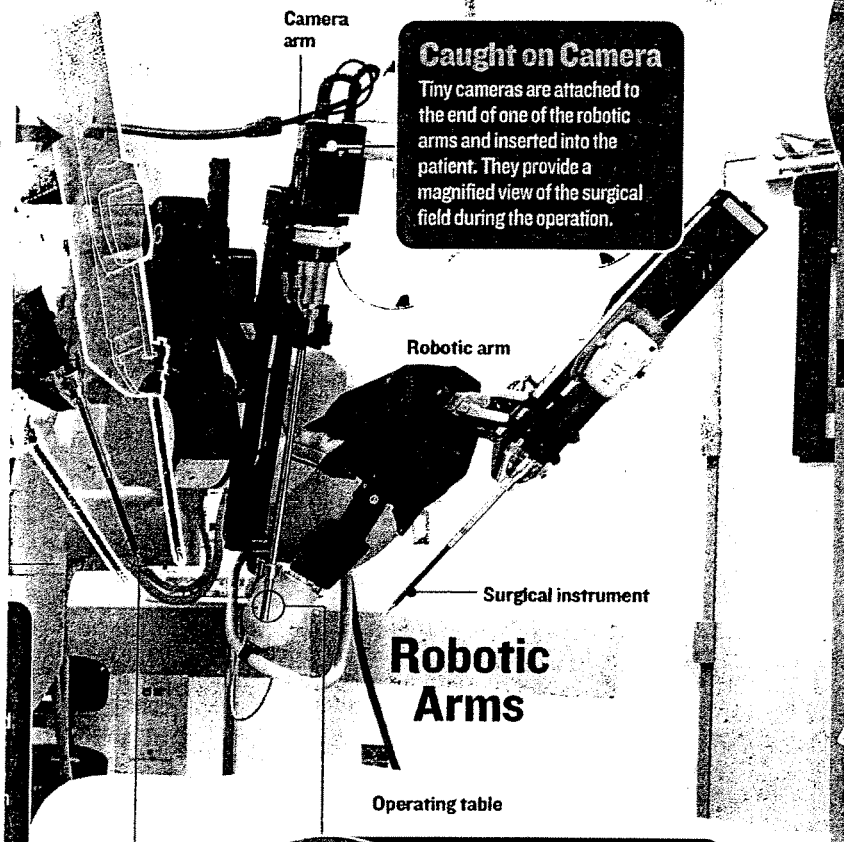
Robotic Arms



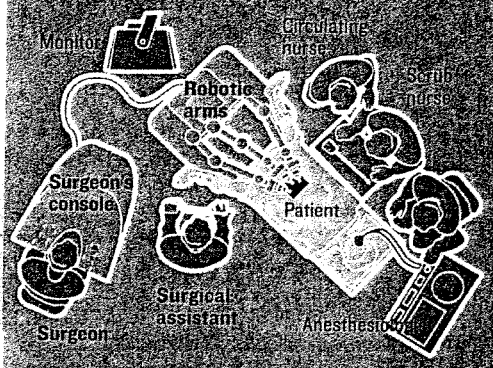
Caught on Camera

Tiny cameras are attached to the end of one of the robotic arms and inserted into the patient. They provide a magnified view of the surgical field during the operation.

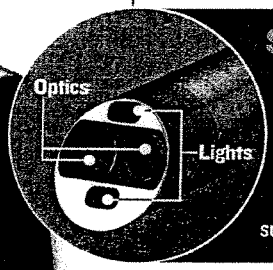
The robotic arms are covered during surgery to maintain a sterile environment

A Team Effort

While the surgeon manipulates the surgical instruments remotely, an assistant helps by manually inserting them into the patient's body and replacing instruments as they are needed.

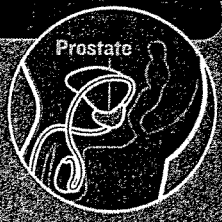


Scoping It Out



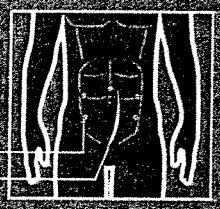
The scope has two optics, one for each eye, and two lights, so surgeons get a bright, 3-D image. Most of the systems used in conventional laparoscopic surgery provide 2-D images.

The Operation

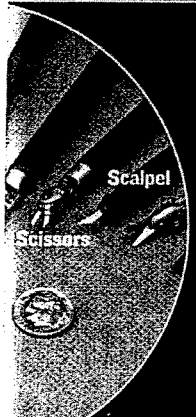


An open radical prostatectomy requires an eight- to 10-inch incision. The robotic approach involves five small incisions, where ports for the surgical instruments and one for the 3-D scope (center) are inserted. The surgeon removes the walnut-size prostate via the abdomen, then reattaches the bladder to the urethra, which drains the bladder.

Types of incision: Robotic | Conventional



Tools of the Trade



The system comes with the traditional palette of surgical tools. Each is just 5mm or 8mm across, about half the diameter of a dime, and has the full rotation of a human wrist. When necessary, software filters out the surgeon's tremors.

—PHOTOGRAPH BY ADAM FRIEDBERG FOR NEWSWEEK

—TEXT BY ANNA KUCHMENT AND JENNIFER BARRETT

—GRAPHIC BY KEVIN HAND

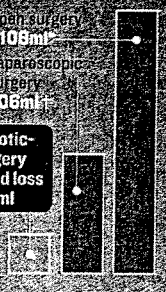
SOURCES: MANI MENON, ALOK SHRIVASTAVA, ASHUTOSH TEWARI, "LAPAROSCOPIC RADICAL PROSTATECTOMY: CONVENTIONAL AND ROBOTIC," UROLOGY, NOVEMBER 2005; INTUITIVE SURGICAL, INC.; CATHY SHIN DI NEW YORK-PRESBYTERIAN HOSPITAL/COLUMBIA UNIVERSITY MEDICAL CENTER. INSET PHOTOS COURTESY OF INTUITIVE SURGICAL, INC.

* AVERAGE OF STUDIES BY HSU, CATALONA, MONK ET AL.
† AVERAGE OF STUDIES BY GUILLONNEAU, RASSWEILER, ABBOU, JACOB, HOZNEK, ANASTASIADIS, FABRIZIO ET AL.

Measuring the Outcome

Small studies have shown benefits for robotic prostatectomies compared with laparoscopic and open surgeries, including:

- Less blood loss
- Lower complication rates
- Shorter recovery time
- Better cancer removal
- Faster removal of catheter



PHOTOGRAPH BY ADAM FINEBERG FOR NEWSWEEK

TECH: A robotic procedure at NewYork-Presbyterian Hospital/Weill Cornell

Urology using 120 of his own patients. And the tide began to turn. "Dr. Menon and a few others showed excellent results with the da Vinci, and then they showed that their results are reproducible," says Dr. Reza Ghavamian, director of urologic oncology at New York's Montefiore Medical Center, which purchased a system this fall. "There's no question this [system] has revolutionized the surgery."

Five years ago, says Dr. David B. Samadi, director of robotic laparoscopic urology surgery at NewYork-Presbyterian Hospital/Columbia Medical Center, 80 to 90 percent of the prostatectomies he did were open, with less than 10 percent done robotically. Now the figures have reversed. "There is much less blood loss and an extremely low rate of complications," he says.

Forbes's procedure required just five small cuts. A surgical assistant inserted a tiny camera and different instruments, all attached to robotic arms, into Forbes's body through pen-size holes. As he remotely manipulated the forceps or scissors, Tewari kept his eyes glued to a 3-D monitor, which showed images captured by the camera and magnified 10 times. "I can see things now to within a fraction of a millimeter," says Tewari, who has done nearly 300 robotic prostatectomies in the past year.

The next frontier for robotic surgery may be gynecological laparoscopic procedures, for which the system was just approved this spring. There are about five times as many hysterectomies as prostatectomies performed each year, and surgeons say the complex procedure could benefit from the robotic system's precision. Cardiac surgeons have also begun using the da Vinci for a range of procedures, from mitral-valve repair to coronary-bypass surgery.

In October, Dr. Francis Sutter, chief of cardiology at the Heart Center at Lankenau Hospital, near Philadelphia, did what he says is the first da Vinci double bypass. "I'd heard these stories about how they cut you right down the middle," says his patient Gilbert Minacci, a 65-year-old retired school principal from Glen Rock, Pa. But he had just a single two-inch incision on the left side of his chest. A week and a half after the surgery, Minacci was walking 30 minutes a day, and tests show his heart function is normal again. "I think even my doctor was surprised that I bounced back so quickly," he says. "If you have to go through this, I don't think it could have been much better."

Some see a day when all complex surgery will be done with robots.

While Sutter is a proponent of the system, he says his peers may be put off by the price tag. His center held fund-raisers to help pay for the da Vinci system in April. "Obviously, I am sold on it," says Sutter, who has since performed 30 coronary bypasses with the system. "But these robots cost a lot of money. That's been a barrier." Insurance companies usually pay the same amount regardless of the type of procedure a patient picks, Sutter says, so the hospital is left picking up the tab for the more expensive robotic surgery.

Also, some surgeons are reluctant to commit the hours necessary to learn robotic techniques. "There are a lot of surgeons who do what they do, and do it well, and don't want to spend time learning a new skill set," says Scott Goldman, surgery chairman of Main Line Health, which owns the Heart Center at Lankenau. "But I think the people with the strongest objections have never tried it."

Dr. Sam Finlayson, a surgeon and assistant professor of surgery and community and family medicine at Dartmouth Medical School, says the question is whether the procedure has enough of an upside compared with established techniques like laparoscopic surgery. "It's great 'gee whiz' technology that's staggering in its complexity and promise," says Finlayson. "But the onus is on the advocates of da Vinci to prove that there's enough benefit to justify the huge cost."

There's also some concern that once a hospital invests in such an expensive system, surgeons might feel pressured to use it and steer patients toward surgery over other treatment options. "It's not inconceivable that the threshold for operative intervention would be lowered by the introduction of this new technology," says Finlayson. "We saw that with laparoscopy in terms of how people would manage gallbladder disease."

That's not necessarily a bad thing, *if* the surgical results are markedly better. Proponents say data have already shown that's the case for prostatectomies. Now surgeons who use the system are hopeful that the success demonstrated in urology will be replicated in other areas. "I think we'll see a day when all complex surgeries are done using the robot," says the UIC's Horgan, who's used the da Vinci more than 600 times for procedures ranging from prostatectomies to kidney transplants. "This is the beginning of a revolution. I have no doubt about it." ■

Intuitive Surgical, Inc., www.intuitivesurgical.com, PN871437 Rev. A, 6/2006 ISI 000795

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EXHIBIT 20

da Vinci® Gastric Bypass

Changing the Experience of Bariatric Surgery

Are you a candidate for the latest treatment option for obesity?

Your doctor may be able to offer you a new, minimally invasive surgical procedure.

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The Condition: Obesity

Obesity is a serious medical condition affecting more than a quarter of the U.S. population. It is the second leading cause of premature death in the U.S. This is because obesity is a progressive disease that often contributes to the development of other serious health problems, such as diabetes, heart disease, elevated lipids, sleep apnea, arthritis and even cancer. Your risk for developing these conditions decreases as you lose weight.

Body mass index (BMI), a ratio of weight to height, is one way to measure obesity. Obesity exists when a person has a BMI greater than 40, or a BMI of 35 with two or more co-morbidities — health problems that can lead to early death. Obesity can also be defined as being 100 or more pounds heavier than ideal weight.

To calculate your BMI, use the following formula:

$$\text{BMI} = \left(\frac{\text{your weight in pounds}}{(\text{your height in inches}) \times (\text{your height in inches})} \right) \times 703$$

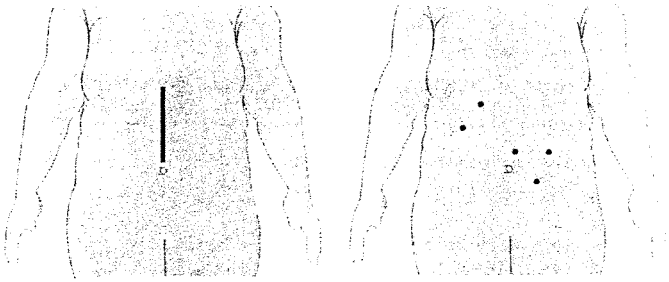
Although obesity is influenced by many social and psychological factors, at its most basic level, obesity can be described as an energy imbalance: People gain weight when they take in more energy (measured in calories) than they consume through physical activity and metabolism. Excess energy is stored as fat.

A recent clinical study indicates that *da Vinci* Gastric Bypass can provide all the benefits of a minimally invasive procedure, including a shorter hospital stay, less pain and faster return to normal activities.

The Treatment: Gastric Bypass

Treatment for obesity may focus on related health problems as much as on weight loss. Your physician can advise you on your various treatment options.

One very effective and increasingly common surgical approach to weight loss is Roux-en-Y gastric bypass surgery, or gastric bypass. Gastric bypass reduces the size of the stomach using surgical stapling. This step restricts the volume of food that can be consumed at one time. The procedure also bypasses a section of the small intestine, reducing the body's ability to absorb calories.



Open Gastric Bypass Incision

da Vinci Gastric Bypass Incisions

da Vinci® Gastric Bypass: A Less Invasive Surgical Procedure

If your physician recommends surgery to control your weight, you may be a candidate for a new, less-invasive surgical procedure called the *da Vinci* Gastric Bypass. This procedure uses a state-of-the-art surgical system designed to help your surgeon see vital anatomical structures more clearly and to perform a more precise surgical procedure.

For most patients, the *da Vinci* Gastric Bypass can offer numerous potential benefits over open-abdominal surgery, including:

> Shorter hospital stay

> Less pain and scarring

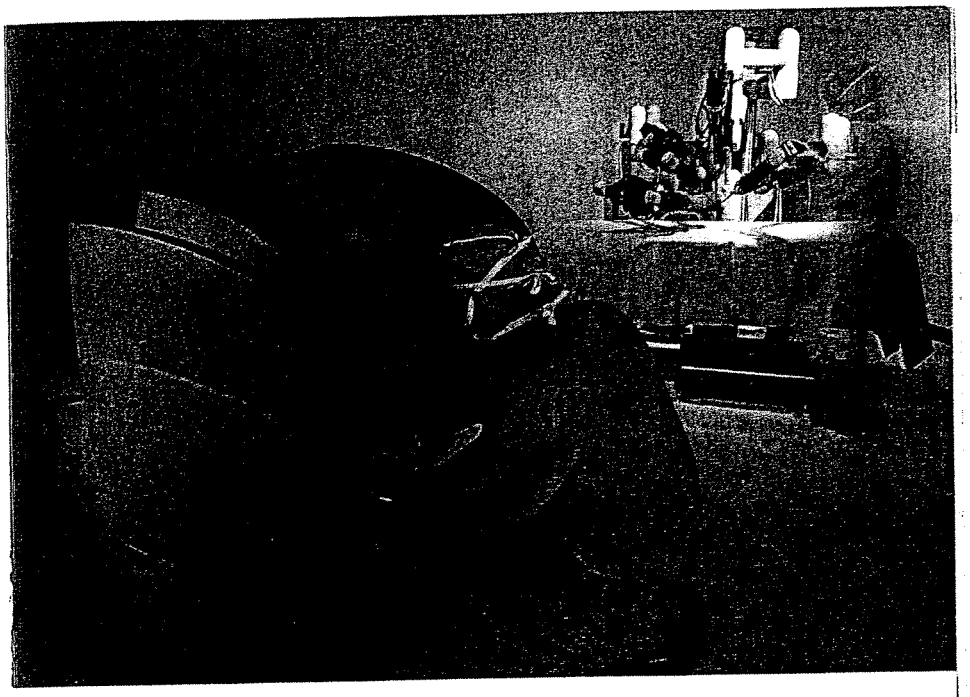
> Less risk of infection

> Less blood loss and fewer transfusions

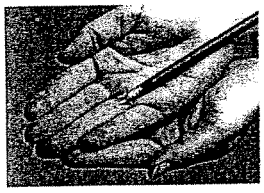
> Faster recovery

> Quicker return to normal activities.

As with any surgery, these benefits cannot be guaranteed, as surgery is both patient- and procedure-specific.



The Enabling Technology: *da Vinci* Surgical System



The *da Vinci* Surgical System is powered by state-of-the-art robotic technology. The System allows your surgeon's hand movements to be scaled, filtered and translated into precise movements of micro-instruments within the operative site.

The *da Vinci* System enhances surgical capabilities by enabling the performance of complex surgeries through tiny surgical openings. The System cannot be programmed, nor can it make decisions on its own. The *da Vinci* System requires that every surgical maneuver be performed with direct input from your surgeon.

The *da Vinci* Surgical System has been successfully used in thousands of minimally invasive procedures worldwide.

**Referenced study available upon request.*

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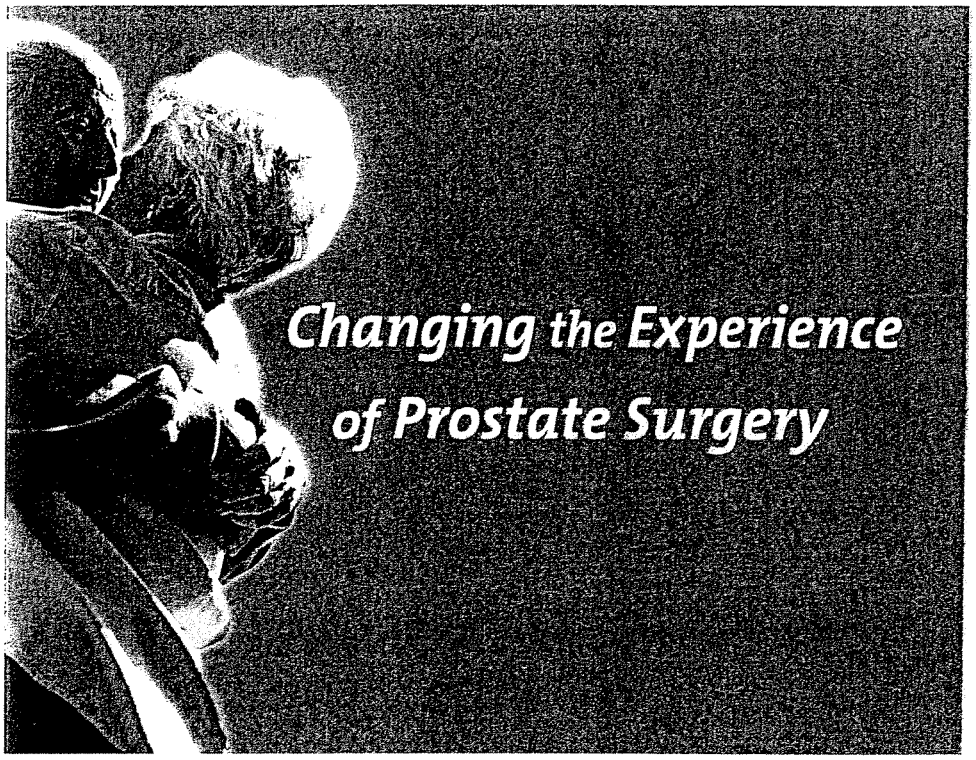
This brochure is provided for general information purposes only. Like any printed material, it may become out of date over time. Consult your doctor about whether *da Vinci*® Gastric Bypass may be appropriate for you. If you have questions about the procedure, the *da Vinci*® Surgical System or the information in this brochure, please consult with your doctor.

da Vinci® Prostatectomy

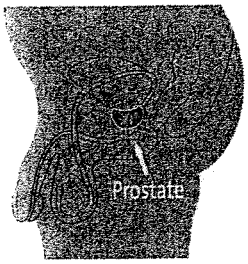


Are you a candidate for the latest treatment option for prostate cancer?

Your doctor may be able to offer you a new, minimally invasive surgical procedure.

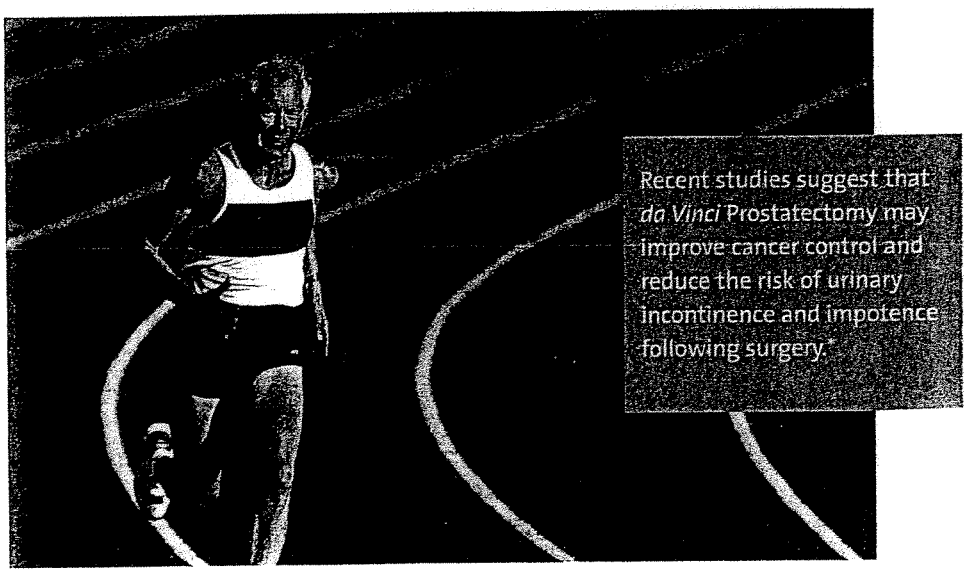
The Disease: Prostate Cancer

Prostate cancer is a disease in which malignant (cancer) cells form in the tissues of the prostate. The prostate is a gland in the male reproductive system located just below the bladder and in front of the rectum. It is about the size of a walnut and surrounds the urethra (the tube that empties urine from the bladder). The prostate gland produces fluid that makes up part of the semen.



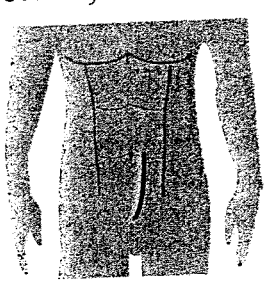
Approximately 16% of American men will be diagnosed with prostate cancer sometime in their life. Treatment options and prognosis depend on the stage of the cancer, the Gleason score, and the patient's age and general health. With greater public awareness, early detection is on the rise and mortality rates are declining.

Additionally, new advances in medical technology are enabling cancer victims to go on to live active and productive lives after their treatment. Consult with your doctor for advice on the options that are available to treat your specific condition.

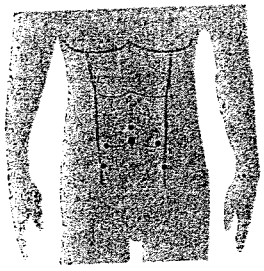


The Surgical Treatment: Radical Prostatectomy

One of the most common treatments for prostate cancer involves the surgical removal of the prostate gland, known as radical prostatectomy. Traditional radical prostatectomy requires a large, 8-10 inch incision. This open surgery commonly results in substantial blood loss, a lengthy and uncomfortable recovery and the risk of impotence and incontinence.



Open Prostatectomy Incision



da Vinci Prostatectomy Incisions

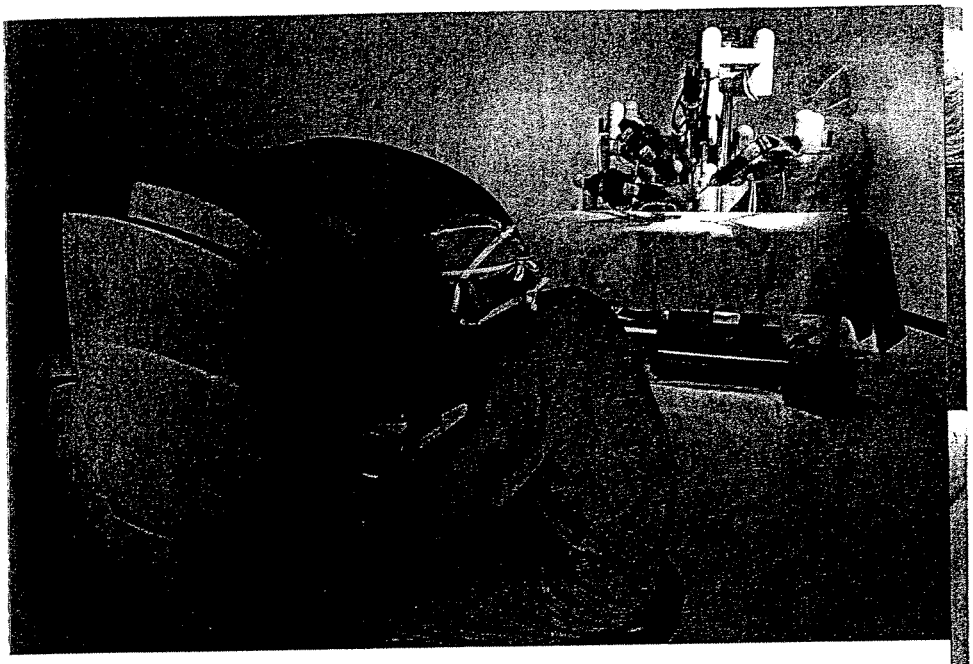
da Vinci Prostatectomy: A Less Invasive Surgical Procedure

If your doctor recommends surgery to treat your prostate cancer, you may be a candidate for a new, less-invasive surgical procedure called *da Vinci* Prostatectomy. This procedure incorporates a state-of-the-art surgical system that helps your surgeon see vital anatomical structures more clearly and to perform a more precise surgical procedure.

For most patients, *da Vinci* Prostatectomy offers numerous potential benefits over open prostatectomy including:

- Shorter hospital stay
- Less pain
- Less risk of infection
- Less blood loss and transfusions
- Less scarring
- Faster recovery
- Quicker return to normal activities

As with any surgical procedure, these benefits cannot be guaranteed as surgery is both patient and procedure specific.



The Enabling Technology: *da Vinci® Surgical System*

The *da Vinci* Surgical System is powered by state-of-the-art robotic technology. The System allows your surgeon's hand movements to be scaled, filtered and translated into precise movements of micro-instruments within the operative site.

The da Vinci System enhances surgical capabilities by enabling the performance of complex surgeries through tiny surgical openings. The System cannot be programmed nor can it make decisions on its own. The *da Vinci* System requires that every surgical maneuver be performed with direct input from your surgeon.

The *da Vinci* Surgical System has been successfully used in thousands of prostate cancer procedures worldwide.

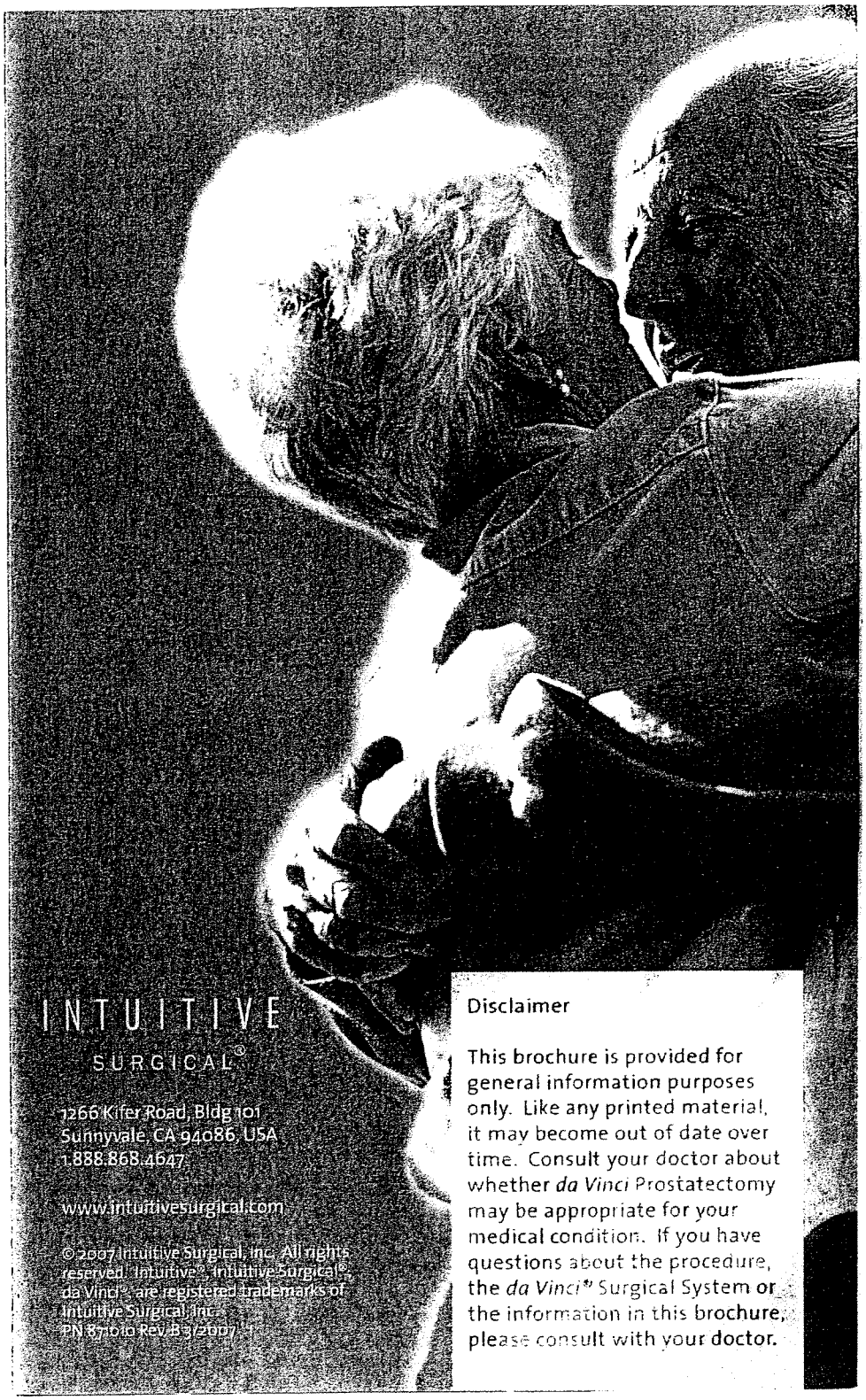
*Referenced studies available upon request.

Your doctor is one of the growing number of surgeons worldwide who's been successfully trained in providing leading-edge treatments such as *da Vinci* Prostatectomy.

With thousands of procedures currently performed, *da Vinci* Prostatectomy is setting a new standard for the surgical treatment of prostate cancer.

For additional information on prostate cancer and *da Vinci* Prostatectomy please visit:

www.daVinciSurgery.com



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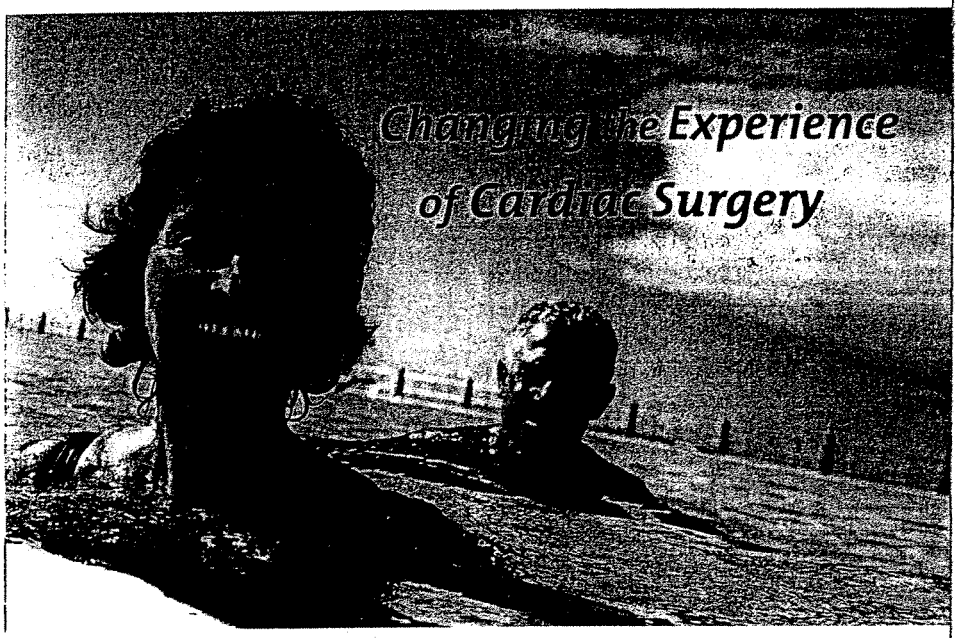
da Vinci® Mitral Valve Repair

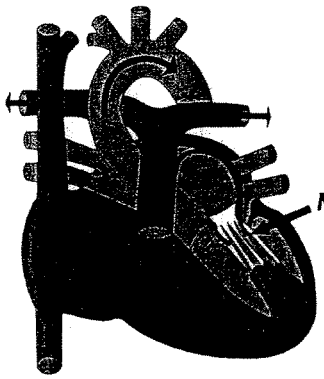


Are you a candidate
for the latest treatment option
for mitral valve disease?

Your doctor may be able to
offer you a new, minimally
invasive surgical procedure.

The Condition: Mitral Valve Disease

The mitral valve is a complex structure that controls blood flow through the left side of the heart. When open, the mitral valve allows blood to flow into the heart's main pumping chamber, the left ventricle. When the left ventricle contracts to push blood through the body, the mitral valve closes to prevent blood from flowing back toward the lungs.

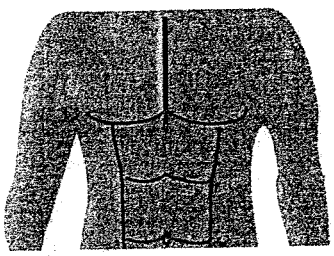


Sometimes the mitral valve is abnormal from birth or becomes damaged by infection. More often, mitral valve structures become damaged with age or from coronary artery disease. Whatever the cause, an abnormal or damaged mitral valve cannot completely seal the heart's left ventricle. With an incomplete seal, blood can escape the left ventricle and flow backwards through the mitral valve. This conflicting force can make the heart work harder, leading to further mitral valve damage and other potential complications such as congestive heart failure.

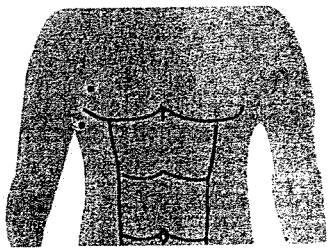
A recent clinical study suggests that *da Vinci*™ MVR may significantly reduce hospital stay and the risk of serious complications when compared with open-chest surgery.*

The Treatment: Mitral Valve Repair

Surgical repair involves delicate reconstruction of native valve tissues in order to restore proper function. The most common approach to repair requires the surgeon to saw open the breastbone and spread the ribs to gain direct access to the heart. Cutting the sternum and opening the rib cage — the body's natural protective structure for the heart — can prolong healing time, increase risk of infection, serious complications and even mortality.



Open Chest Incision



da Vinci MVR Incisions

da Vinci® MVR: A Less Invasive Surgical Procedure

If your doctor recommends surgical repair, you may be a candidate for a new, less invasive surgical procedure called *da Vinci* Mitral Valve Repair (*da Vinci* MVR). This procedure uses a state-of-the-art surgical system designed to help your surgeon see vital anatomical structures more clearly and to perform a more precise surgical procedure.

For most patients, *da Vinci* MVR offers numerous potential benefits over traditional open-chest surgery, including:

- Shorter hospital stay
- Less pain and scarring
- Less risk of infection
- Less blood loss and fewer transfusions
- Faster recovery
- Quicker return to normal activities

As with any surgery, these benefits cannot be guaranteed, as surgery is patient- and procedure-specific.

The Enabling Technology: *da Vinci® Surgical System*

The *da Vinci* Surgical System is powered by state-of-the-art robotic technology. The System allows your surgeon's hand movements to be scaled, filtered and translated into precise movements of micro-instruments within the operative site.

The *da Vinci* System enhances surgical capabilities by enabling the performance of complex surgeries through tiny surgical openings. The System cannot be programmed, nor can it make decisions on its own. The *da Vinci* System requires that every surgical maneuver be performed with direct input from your surgeon.

The *da Vinci* Surgical System has been successfully used in tens of thousands of minimally invasive procedures worldwide.

**Referenced study available upon request.*

Your doctor is one of a growing number of surgeons worldwide who has been successfully trained in providing leading-edge treatments such as *da Vinci* Mitral Valve Repair.

da Vinci Mitral Valve Repair is setting a new standard for the surgical repair of mitral valves.

For more information on *da Vinci* Mitral Valve Repair, please visit:

www.daVinciSurgery.com

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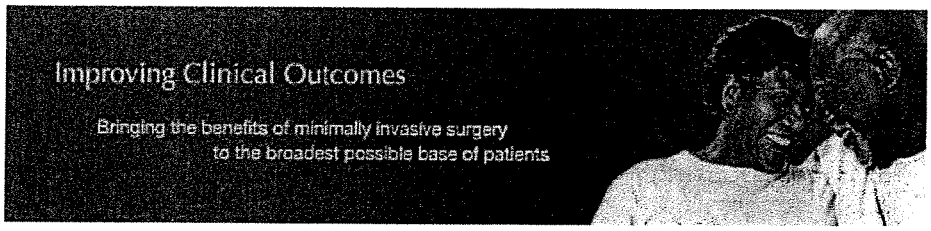
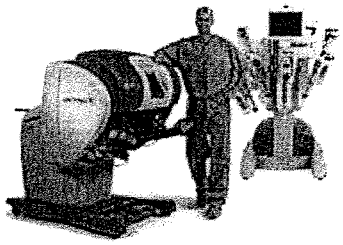


da Vinci S HD SURGICAL SYSTEM



Experience Surgery in High Definition 3DHD

Events

IRUS
Jan. 12-14, Las Vegas

STS
Jan. 24-27, San Francisco

SGO
Feb. 5-8, San Antonio

EAU
March 17-21, Stockholm

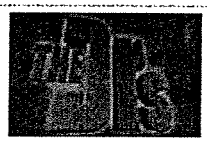
WRUS
April 6-8, Orlando

SAGES
April 22-25, Phoenix

>> **Full Events Calendar**

>> **Watch Live Surgery**

News



Watch coverage of the *da Vinci* Surgical System featured on the new hit daytime medical talk show, **The Doctors**.

ABC NEWS

"New research suggests doctors will perform better with robotic assistance."

>> More TV Coverage

Resources

>> 3D HD Surgery - *da Vinci S HD* Surgical System

>> *da Vinci* Surgical System Image Gallery

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>> Media Information

>> Career Seekers

>> Hospital Locator

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da Vinci Surgeon Finder
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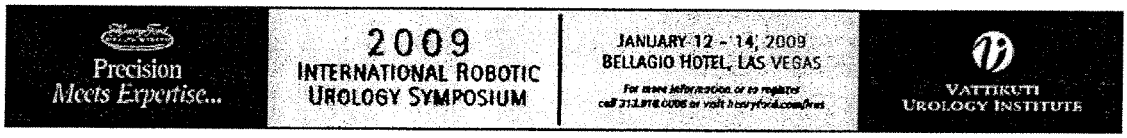
daVinciProstatectomy.com
daVinciHysterectomy.com



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Welcome to Intuitive Surgical

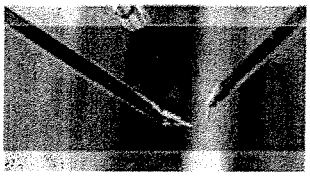
Surgical robotics was little more than a medical curiosity until 1999, the year Intuitive Surgical introduced the *da Vinci*® Surgical System. Today, Intuitive Surgical is the global leader in the rapidly emerging field of robotic-assisted minimally invasive surgery. Since its inception, the company has consistently provided surgeons and hospitals with the tools needed to improve clinical outcomes and to help patients return to active and productive lives.

With its corporate headquarters located in Sunnyvale, California, Intuitive Surgical serves customers throughout the United States and internationally, providing technology and procedural innovation across cardiac, urology, gynecologic, pediatric and general surgical disciplines.

Since its first da Vinci System shipment, Intuitive Surgical has expanded its installed base to more than 850 academic and community hospital sites, while sustaining growth in excess of 25% annually.

Intuitive Surgical is proud to be fulfilling its mission to extend the benefits of minimally invasive surgery to the broadest possible range of patients, while providing extraordinary value for its customers, investors and employees.

Intuitive Surgical, Inc.



Corporate Video - How Does a Hospital Measure the Value of a Technology Investment?

Corporate Overview Brochure

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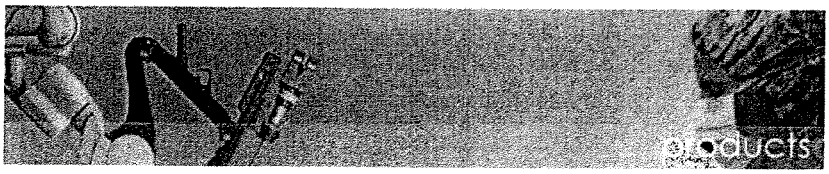


Home Products

Products

Intuitive Surgical leads the development and commercialization of robotic technology designed to extend the benefits of minimally invasive surgery to broadest possible base of patients. Intuitive's products can provide surgeons with all the clinical and technical capabilities of traditional open surgery while enabling them to operate through tiny incisions.

Intuitive Surgical's *da Vinci*® Surgical System combines superior 3D visualization along with greatly enhanced dexterity, precision and control in an intuitive, ergonomic interface with breakthrough surgical capabilities.

How does a Hospital Measure the Value of a Technology Investment?

The *da Vinci* Surgical System is improving patient experiences and outcomes by fundamentally changing surgery in three ways:

Simplifies many existing MIS procedures

Many surgical procedures performed today using standard laparoscopic technique may be performed more quickly and easily using the *da Vinci* Surgical System. This is because the *da Vinci* System delivers increased clinical capability while maintaining the same "look and feel" of open surgery.

Makes difficult MIS operations routine

Traditional laparoscopy has never become widely applied outside a limited set of routine procedures. Only a select group of highly skilled surgeons routinely attempt complex procedures using a minimally invasive approach . The *da Vinci* Surgical System finally allows more surgeons to perform complex procedures using a minimally invasive approach – routinely and with confidence.

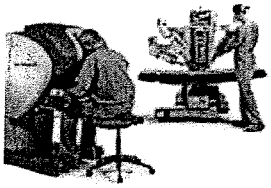
Makes new MIS procedures possible

A number of procedures that could not be performed using traditional MIS technologies can now be performed using the *da Vinci* Surgical System. The advanced feature set and extensive *EndoWrist*® instrumentation of the *da Vinci* System enable surgeons to perform more procedures through 1-2 cm incisions.

Improved Patient Outcomes

By enhancing surgical capabilities, Intuitive's products are helping to improve clinical outcomes and redefine standards of care. Patients may experience the following benefits:

Video Overview



da Vinci S HD Video Overview

- Reduced trauma to the body
- Reduced blood loss and need for transfusions
- Less post-operative pain and discomfort
- Less risk of infection
- Shorter hospital stay
- Faster recovery and return to normal daily activities
- Less scarring and improved cosmesis

Due to the patient- and procedure-specific nature of surgery, these benefits cannot be guaranteed.

For more information about Intuitive Surgical products, please contact your local representative.

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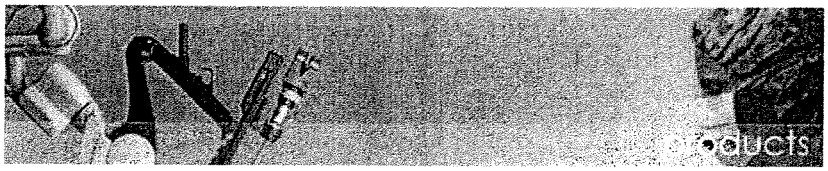
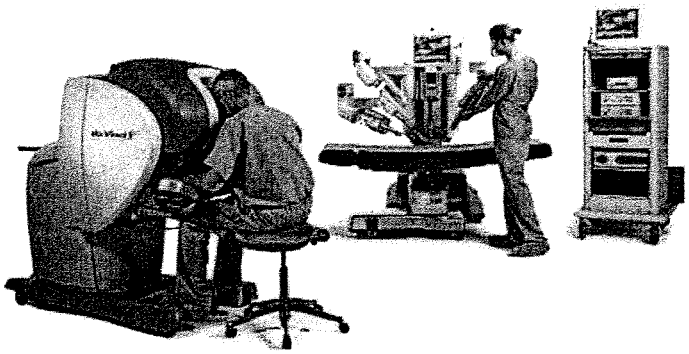


Home Products da Vinci Surgical System

The *da Vinci*® Surgical System

The *da Vinci* Surgical System consists of an ergonomically designed surgeon's console, a patient-side cart with four interactive robotic arms, the high-performance *InSite*® Vision System and proprietary *EndoWrist*® Instruments. Powered by state-of-the-art robotic technology, the surgeon's hand movements are scaled, filtered and seamlessly translated into precise movements of the *EndoWrist* Instruments. The net result: an intuitive interface with breakthrough surgical capabilities.



Clinical Validation

Cardiac
"The *da Vinci* System makes it possible to offer a wider range of patients a minimally invasive open-heart procedure to repair the mitral valve. This will allow more patients to benefit from both shorter hospital stays and reduced recovery times."

W. Randolph Chitwood, Jr. M.D.
Professor and Chairman Department of Surgery
Chief of Cardiothoracic Surgery
East Carolina University School of Medicine

Urology
"As a trained surgical oncologist, *da Vinci* has allowed me to offer my patients a better cancer operation with improved clinical outcomes."

Thomas E. Ahlering, M.D.
Associate Professor of Urology
Director, Urological Oncology
University of California Irvine Medical Center

General Surgery
"I can achieve superb clinical results in technically demanding operations such as Heller myotomy and Esophagectomy with fewer complications."

Components of the *da Vinci* Surgical System

Surgeon Console

Using the *da Vinci* Surgical System, the surgeon operates while seated comfortably at a console viewing a 3-D image of the surgical field.

The surgeon's fingers grasp the master controls below the display, with hands and wrists naturally positioned relative to his or her eyes.

The system seamlessly translates the surgeon's hand, wrist and finger movements into precise, real-time movements of surgical instruments inside the patient.

Patient-side Cart

Provides either three or four robotic arms—two or three instrument arms and one endoscope arm—that execute the surgeon's commands.

The laparoscopic arms pivot at the 1-2 cm operating ports, eliminating the use of the patient's body wall for leverage and minimizing tissue damage.

Supporting surgical team members assist in installing the proper instruments, prepare the 1-2 cm port in the patient and supervise the laparoscopic arms and tools being utilized.

Santiago Horgan, M.D.
Director of Minimally Invasive Surgery
University of California, San Diego

EndoWrist Instruments

A full range of proprietary EndoWrist instruments is available to support the surgeon while operating.

The instruments are designed with seven degrees of motion that mimic the dexterity of the human hand and wrist.

Each instrument has a specific surgical mission such as clamping, suturing and tissue manipulation.

Quick-release levers speed instrument changes during surgical procedures.

Vision System

The Vision System, with high-resolution 3-D endoscope and image processing equipment, provides the true-to-life 3-D images of the operative field.

Operating images are enhanced, refined and optimized using image synchronizers, high-intensity illuminators and camera control units.

The *da Vinci* Surgical System is the only commercially available technology that can provide the surgeon with the intuitive control, range of motion, fine tissue manipulation capability and 3-D visualization characteristic of open surgery, while simultaneously allowing the surgeon to work through tiny incisions typical of minimally invasive surgery.

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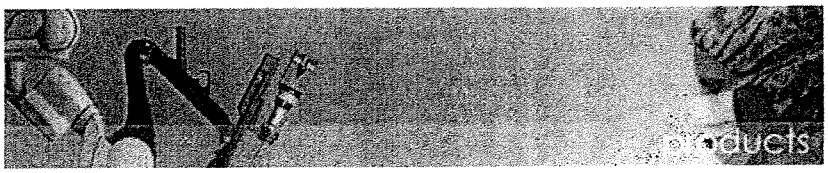

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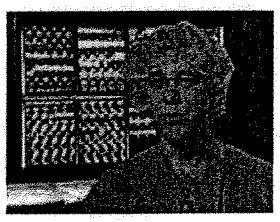

Watch Video

"The System in my view really is a step towards the future. I think that surgery as a specialty has been behind other industries - the space industry, the automobile industry - in taking advantage of computer-assisted procedures and taking advantage of robotic types of technology. So in my view this system is the first clear, solid step forward in that direction."

Mark Talamini, M.D., F.A.C.S.
Professor of Surgery
Chairman, Department of Surgery
University of California, San Diego

Features and Benefits of the *da Vinci*® Surgical System

The *da Vinci* Surgical System enables physicians to perform surgery in a manner never before experienced.

The *da Vinci* System seamlessly translates the surgeon's hand movements at the console instrument controls into corresponding micro-movements of instruments positioned inside the patient.

Overall, the *da Vinci* System can provide the surgeon with better visualization, dexterity, precision and control than with open surgery, while enabling operation through 1-2 cm incisions.

Superior Visualization

- Revolutionary true-to-life 3-D vision
- Bright, crisp, high-resolution image
- Immersive view of the surgical field

The *da Vinci* System provides visualization of the target anatomy unlike that ever experienced, with natural depth-of-field, enhanced contrast and magnification for more accurate tissue identification and tissue layer differentiation.

Improved visualization also enables surgeons to perform delicate tissue handling and dissection with added precision - even in confined spaces. This precision allows the surgeon to avoid trauma to surrounding structures and tissues such as the neurovascular bundle located near the prostate.

Enhanced Dexterity, Precision and Control

- Fingertip control of *EndoWrist*® Instruments
- 4 robotic arms enable Solo Surgery™
- 7 degrees of freedom - 90 degrees of articulation
- Motion scaling and tremor reduction

The *da Vinci* System's tremor reduction, motion control and proprietary EndoWrist instrumentation enhance ambidexterity for precision and control beyond the capabilities of the human hand. The surgeon can now move instruments with such accuracy that the current definition of surgical precision is exceeded.

Enhanced control and intuitive motion enables more widespread use of advanced technique, as well as a reduced learning curve because now complex MIS procedures feel more like open surgery. For example, two-handed intracorporeal suturing can become standard practice, as well as Solo Surgery™ during selected procedures with the addition of a fourth arm.

Added instrument range-of-motion enhances access and safety while operating in

the confined space of the closed chest, abdomen or pelvis. This enables surgeons to more accurately and easily perform complex surgical maneuvers through small "ports," eliminating the need for large, traumatic incisions.

Superior Ergonomics

- Optimal alignment of visual and motor axes
- Comfortable seated posture

The *da Vinci* System is the only surgical system designed to allow surgeons to operate while seated, which is not only more comfortable, but also may be clinically advantageous due to reduced surgeon fatigue.

The *da Vinci* System's design allows natural hand-eye alignment at the surgeon's console, which provides better ergonomics than traditional laparoscopic technology.

Since the *da Vinci* System's robotic arms hold the camera and instruments steady, there is also potentially reduced abdominal wall torque, less patient trauma; less surgeon assistance required and reduced surgeon fatigue.

Finally, with the robotic arms providing added mechanical strength, physicians can now offer a minimally invasive approach to higher-BMI patients.

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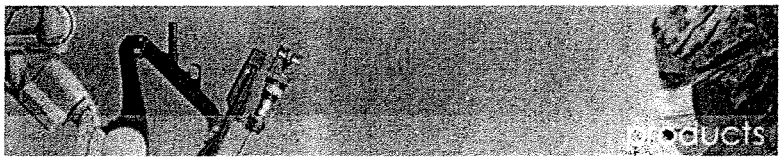
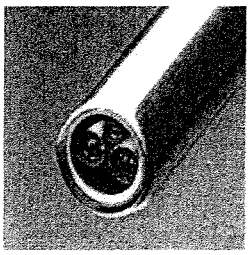


Home Products da Vinci Surgical System 3D Vision System

3D Vision System

The remarkable visualization provided by the *da Vinci*® Surgical System immerses the surgeon in an enhanced 3-D view of the operative field, providing direct eye-hand-instrument alignment and natural depth perception necessary for precise manipulation of delicate tissue layers. A custom dual lens endoscope coupled with two 3-chip cameras take the surgeon "inside" the patient.

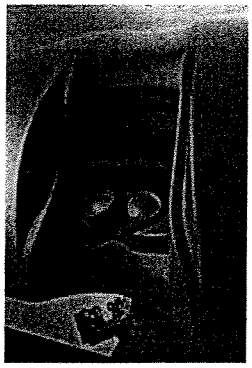
High-Resolution Image Processing



Intuitive Surgical's vision system includes a high-resolution 3-D endoscope with two independent vision channels linked to two high-resolution, progressive scan color monitors. The system also incorporates image processing equipment comprised of high-performance video cameras, specialized edge enhancement and noise reduction equipment.

The resulting high-resolution 3-D image is bright, crisp and clear, with no fatigue-inducing flicker or cross-fading as with single monitor systems.

Visual Continuity

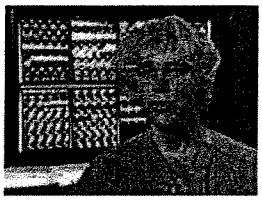


Camera control, provided through the hand controls and foot pedals, provides near-seamless transition between views. Reposition the surgical camera in an instant with foot controls or zoom in, out, up, down, left and right by moving your hands in the desired direction. Repositioning your head at the console does not affect image quality as with other 3D display systems.

Further Information

Video - See how it works

Clinical Validation



Watch Video

"The System in my view really is a step towards the future. I think that surgery as a specialty has been behind other industries - the space industry, the automobile industry - in taking advantage of computer-assisted procedures and taking advantage of robotic types of technology. So in my view this system is the first clear, solid step forward in that direction."

Mark Talamini, M.D., F.A.C.S.
Professor of Surgery
Chairman, Department of Surgery
University of California, San Diego

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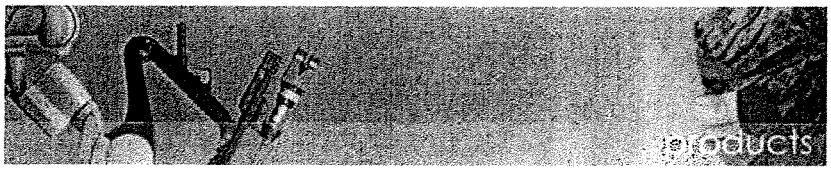
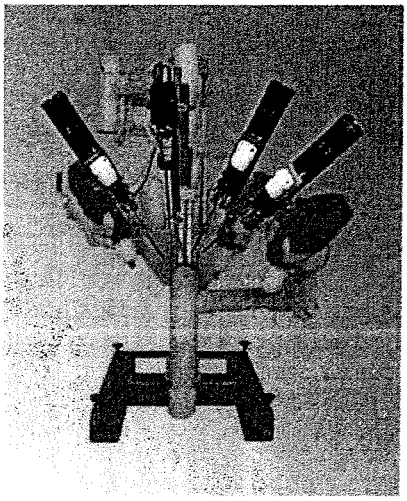


Home Products da Vinci Surgical System 4th Arm

4th Arm

The *da Vinci*® Surgical System's patient-side cart holds up to four electromechanical arms that manipulate the instruments inside the patient. The instruments and camera attach easily to the arms, and are easily repositioned by either the console or patient-side surgeon. The addition of a 4th Arm allows *Solo Surgery*™, a breakthrough in robotic-assisted MIS.



The first two arms, representing the surgeon's left and right hands, hold the *EndoWrist*® instruments. A third arm positions the endoscope, allowing the surgeon to easily change, move, zoom and rotate his or her field of vision from the console. This mobility eliminates the need for an assistant to hold the camera steady.

The optional 4th Arm extends surgical capabilities by enabling the surgeon to add a third *EndoWrist* instrument and perform additional tasks like applying countertraction and following running sutures. This optional feature potentially eliminates the need for a patient-side surgeon.

The surgeon can simultaneously control any two of the operating arms by tapping a foot pedal underneath the surgeon's console. The 4th Arm is available as an option on new da Vinci Surgical Systems and can be added as an upgrade to existing *da Vinci* Systems.

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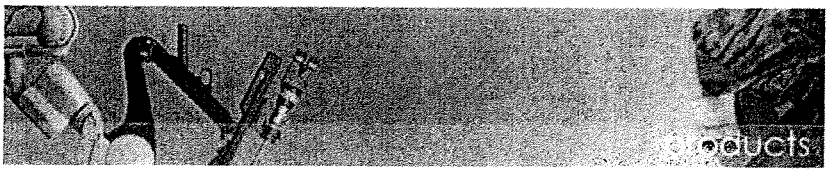


EndoWrist® Instruments

Instruments & Accessories Catalog

Intuitive Surgical's exclusive *EndoWrist* Instruments are designed to provide surgeons with natural dexterity and full range of motion for precise operation through tiny incisions. Modeled after the human wrist, *EndoWrist* Instruments can offer an even greater range of motion than the human hand. They truly allow the *da Vinci*® System to take surgical precision and technique beyond the limits of the human hand. Similar to human tendons, an *EndoWrist* Instrument's internal cables provide maximum responsiveness, allowing rapid and precise suturing, dissection and tissue manipulation.

Recently Launched Instruments

EndoWrist SutureCut Needle Driver
EndoWrist Tapered Mega Needle Driver
EndoWrist 5mm Instruments
EndoWrist Atrial Retractor
EndoWrist PK™ Dissecting Forceps
Based on Gyrus ACMI PK™ Technology

EndoWrist Instruments
provide enhanced dexterity, precision and control
› 7 degrees of freedom
› 90 degrees of articulation
› Intuitive motion and finger tip control
› Motion scaling and tremor reduction

Further Information

The proprietary design of *EndoWrist* instruments allows simple instrument exchange during procedures. Over 40 different tip styles are available in both 5mm and 8mm shaft diameters.

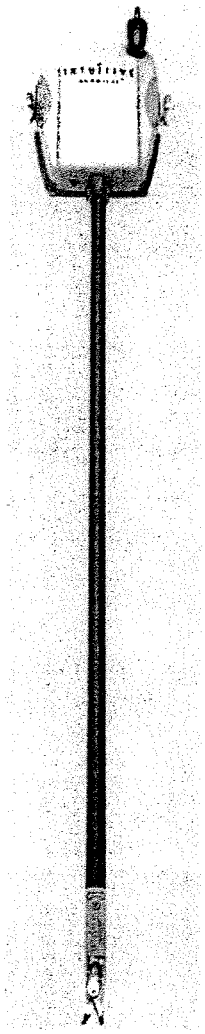
The wrist-like movement, responsiveness and robotic control afforded by the *da Vinci* System and its exclusive *EndoWrist* Instruments provide surgeons fluid ambidexterity and unparalleled precision. These advantages enable better outcomes when operating in confined environments experienced during minimally invasive surgery.

Wide Selection

The *EndoWrist* Instruments are available in a wide selection of specialized tip designs to enable a broad range of procedures using the *da Vinci* Surgical System. The *EndoWrist* product line includes a variety of forceps, needle drivers, scissors; monopolar and bipolar electrocautery instruments; scalpels and other specialized instruments. Moreover, *EndoWrist* Instruments are available in 5 mm and 8 mm diameters to meet surgeons' requirements.

Ease of Use

The EndoWrist Instruments are designed to be user-friendly in all aspects of the surgery. After an instrument is mounted to the *da Vinci* System, the interface is designed not only to recognize the type and function of the instrument, but to also display the number of uses. With this unique interface, the *da Vinci* System can



easily detect when an instrument needs replacement.

The *EndoWrist* Instruments, designed exclusively for the *da Vinci* System, are available directly from Intuitive Surgical and its authorized distributors worldwide. For additional information contact Intuitive Surgical Customer Service.

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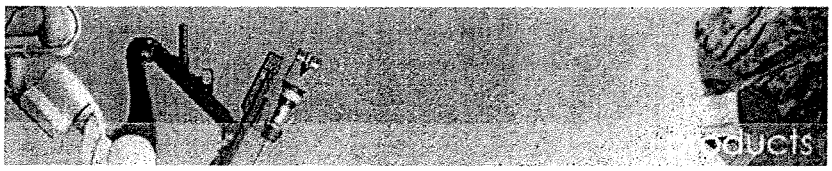


da Vinci S HD SURGICAL SYSTEM

The *da Vinci S HD* Surgical System integrates 3D HD endoscopy and state-of-the-art robotic technology to virtually extend the surgeon's eyes and hands into the surgical field. Only the da Vinci System enables new, minimally Invasive options for complex surgical procedures.

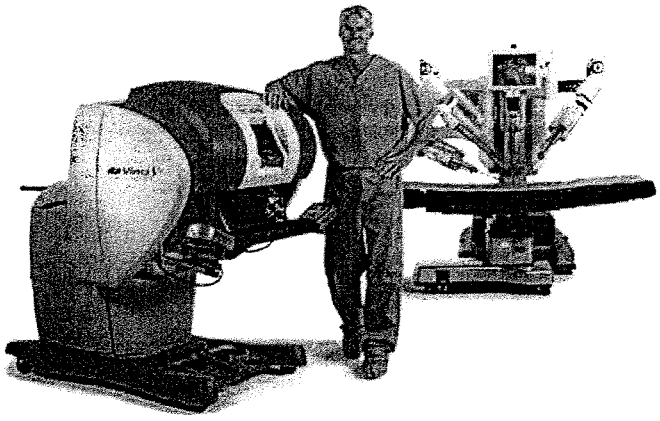
- Fast foolproof setup
- Rapid instrument exchange
- Multi-quadrant access
- Interactive video displays

Video Overview

da Vinci S HD Video Overview

***da Vinci S HD* Data Sheet**

da Vinci® S HD™ Data Sheet



Unparalleled 3D HD Visualization

- World's first robotic surgical system with 3D HD vision
- Twice the effective viewing resolution provides improved clarity and detail of tissue planes and critical anatomy
- Panoramic 16:9 aspect ratio is 30% wider, providing 20% more viewing area
- Digital zoom reduces interference between endoscope and instruments
- 0° and 30° stereo endoscopes

Enhanced Dexterity, Precision & Control

- Precise fingertip control of fully articulating EndoWrist® Instruments
- Motion scaling & tremor reduction
- Patented Intuitive® Movement

- Large range of motion robotic arms and extended length instruments enable multi-quadrant access
- Slim, telescoping instrument arms provide better patient access and optimal port placement
- Broad selection of 8mm and 5mm EndoWrist instruments

Superior Ergonomics

- Optimal hand-eye alignment
- Immersive stereo viewer
- Comfortable seated posture

Fast, Foolproof Setup

- Motorized Patient Cart
- Quick-click cannula mounts for simplified patient docking
- Integrated 4th arm for rapid deployment
- Touchscreen scope configuration
- Single high-speed fiber-optic connection
- Single-use sterile adaptors with integrated drapes

Streamlined Interface

- Integrated touchscreen monitor
- Telestration for improved proctoring and team communication
- TilePro multi-input display allows an integrated view of patient critical information
- Intuitive status LEDs & icons

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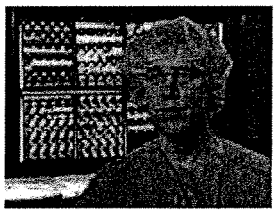

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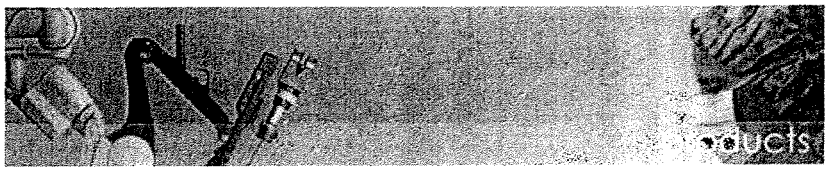
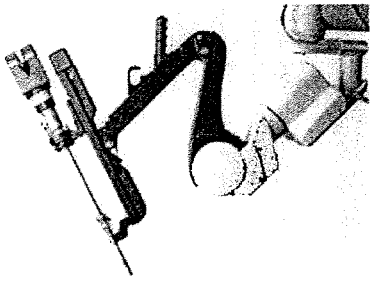


Home Products Robotic-Assisted Surgery

The Development of Robotic-Assisted Surgery

The past two decades have witnessed a revolutionary transition in surgical technique and technology. Traditionally, surgeries had been performed in the open manner, in which large incisions were required for the surgeon to plainly observe and manipulate the surgical field. These incisions inevitably created significant patient trauma—substantial pain and suffering, extended recovery time, prolonged pain management and elevated costs.

Minimally Invasive Surgery



Approximately 20 years ago, surgeons began practicing a new approach to performing surgery, an approach that came to be known as minimally invasive surgery, or MIS. During this era, tiny cameras in instruments called endoscopes or laparoscopes were introduced. These visual and surgical aids could be inserted in the patient's body through small ports.

Although revolutionary in its positive effect on patient trauma and recovery times, MIS encountered significant technical drawbacks. The surgeon operated using a standard 2D monitor instead of looking at his or her hands. The resulting image flattened the natural depth of field, and the fixed-wrist instruments limited his/her dexterity. The lack of 3D visualization of the operative field, the poor ergonomic design and reduced control were major roadblocks to further progress. As a result, this type of MIS turned out to be suitable for a narrow range of surgical procedures.

Robotic-Assisted MIS

In the late 1990s, another evolutionary stage in the development of surgical technique was achieved with the application of robotics to surgical technology. At the forefront of this new era, Intuitive Surgical introduced the *da Vinci*® Surgical System. The *da Vinci* System features wristed instruments with seven degrees of freedom, three-dimensional, intuitive visualization and ergonomic comfort. These innovations created the preconditions for minimally invasive solutions to complex procedures in a wide range of surgical specialties. Today, Intuitive Surgical's products continue to enable a new generation of surgical advancements, providing benefits to surgeons, hospitals and patients.

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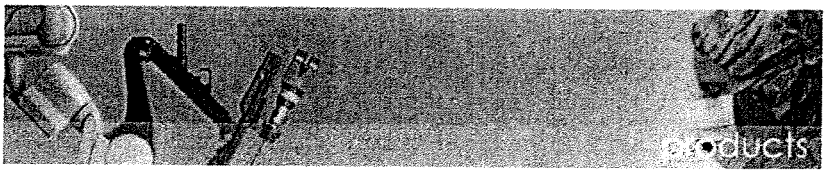


Home Products FAQs

Frequently Asked Questions

Why is the company called Intuitive Surgical®?
Why is the product called the *da Vinci*® Surgical System?
Is a surgeon using the da Vinci Surgical System operating in "virtual reality"?
Is this telesurgery? Can you operate over long distances?
Is Intuitive Surgical developing the *da Vinci* System for telesurgical applications?
Where is the *da Vinci* Surgical System being used now?
Is Intuitive's technology patented?
Has the da Vinci Surgical System been cleared by the FDA?
What is Minimally Invasive Surgery (MIS)?
Will the *da Vinci* Surgical System make the surgeon unnecessary?
What are the benefits of using the *da Vinci* Surgical System over more traditional methods of surgery?
Is this "robotic surgery?"
Why can't surgeons perform complex procedures such as cardiac surgery through 1-2 cm ports today?
Why isn't Intuitive Surgical getting involved in the Defense Advanced Research Projects Agency (DARPA) Defense Sciences project to develop robotic technology for use on the battlefield?
While using the da Vinci Surgical System, can the surgeon feel anything inside the patient's chest or abdomen?
What procedures have been performed using the da Vinci Surgical System? What additional procedures are possible?
Where is Intuitive headquartered?
How are Intuitive's products sold?
How many *da Vinci* Systems have been sold?
How many employees does Intuitive have?

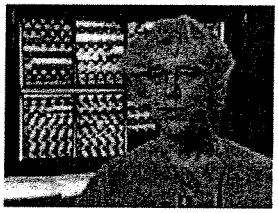
Q. Why is the company called Intuitive Surgical?

A. The Company is called "Intuitive" Surgical because its technologies are designed to allow surgeons to operate with the same skills learned in open surgery, yet with increased precision. The technology maintains a corresponding eye-hand-instrument alignment and intuitive instrument control: As the surgeon twists the controls clockwise, the patient-side cart instruments twist clockwise as well. This "intuitive motion" is the antithesis of laparoscopic surgery, where the surgeon moves the instrument handles in the opposite direction as the instrument tips.

Q. Why is the product called the *da Vinci*® Surgical System?

A. The product is called "da Vinci" in part because Leonardo da Vinci invented the

Clinical Validation



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first robot. He also used unparalleled anatomical accuracy and three-dimensional details to bring his masterpieces to life. The *da Vinci* Surgical System similarly provides physicians with such enhanced detail and precision that the System can simulate an open surgical environment while allowing operation through tiny incisions.

Q. Is a surgeon using the *da Vinci* Surgical System operating in "virtual reality"?
A. Although seated at a console a few feet away from the patient, the surgeon views an actual image of the surgical field while operating in real-time, through tiny incisions, using electromechanically enhanced instruments. At no time does the surgeon see a virtual image or program/command the system to perform any maneuver on its own/outside of the surgeon's direct, real-time control.

Q. Is this telesurgery? Can you operate over long distances?
A. The *da Vinci* Surgical System can theoretically be used to operate over long distances. This capability, however, is not the primary focus of the company and thus is not available with the current *da Vinci* Surgical System.

Q. Is Intuitive Surgical developing the da Vinci System for telesurgical applications?
Intuitive Surgical's goal is to extend the benefits of minimally invasive surgery to the broadest possible base of patients. Our strategy to achieve this includes the development of products that allow any physician today to rapidly expand his/her surgical technique and capabilities. Our robotic surgical platforms currently enable surgeons to perform complex procedures using a minimally invasive approach.

In the interest of expediting surgeon training and expanding training programs, we are exploring telesurgery as a way to facilitate surgeon-to-surgeon proctoring and coaching. We see telesurgery as a means to allow surgeons to get up to speed in robotic-assisted surgery under the guidance of leading specialists – with less disruption to their clinical schedules and less impact on their patients.

Q: Where is the *da Vinci* Surgical System being used now?
A: Currently, The *da Vinci* Surgical System is currently being used worldwide, in major centers in the United States, Austria, Belgium, Canada, Denmark, France, Germany, Italy, India, Japan, the Netherlands, Romania, Saudi Arabia, Singapore, Sweden, Switzerland, United Kingdom, Australia and Turkey.

Q. Is Intuitive's technology patented?
A. Intuitive has an extensive patent portfolio of internally developed technology, as well as a variety of patents acquired or exclusively licensed from leaders in computer-enhanced robotics.

Q. Has the *da Vinci* Surgical System been cleared by the FDA?
A. The U.S. Food and Drug Administration (FDA) has cleared the *da Vinci* Surgical System for a wide range of procedures. Please see the FDA Clearance page for specific clearances and representative uses.

Q. What is Minimally Invasive Surgery (MIS)?
A. MIS is surgery typically performed through small incisions, or operating ports, rather than large incisions, resulting in shorter recovery times, fewer complications, reduced hospitalization costs and reduced trauma to the patient. MIS has become standard-of-care for particular surgical procedures, it has not been widely adopted for more complex or delicate procedures – for example, prostatectomy and mitral valve repair.

Intuitive Surgical believes that surgeons have been slow to adopt MIS for complex procedures because they generally find that fine-tissue manipulation – such as

dissecting and suturing – is more difficult and are less precise than in open surgery. Intuitive Surgical's technology, however, enables the use of MIS technique for complex procedures.

Q. Will the *da Vinci* Surgical System make the surgeon unnecessary?

A. On the contrary, the *da Vinci* System enables surgeons to be more precise, advancing their technique and enhancing their capability in performing complex minimally invasive surgery. The System replicates the surgeon's movements in real time. It cannot be programmed, nor can it make decisions on its own to move in any way or perform any type of surgical maneuver without the surgeon's input.

Q. What are the benefits of using the *da Vinci* Surgical System over more traditional methods of surgery?

A. Some of the major benefits experienced by surgeons using the *da Vinci* Surgical System over traditional approaches have been greater surgical precision, increased range of motion, improved dexterity, enhanced visualization and improved access. Benefits experienced by patients may include a shorter hospital stay, less pain, less risk of infection, less blood loss, fewer transfusions, less scarring, faster recovery and a quicker return to normal daily activities. None of these benefits can be guaranteed, as surgery can be both patient- and procedure-specific.

Q. Is this "robotic surgery?"

A. Devices for "robotic surgery" are designed to perform entirely autonomous movements after being programmed by a surgeon. The *da Vinci* Surgical System is a computer-enhanced system that interposes a computer between the surgeon's hands and the tips of micro-instruments. The system replicates the surgeon's movements in real time. It cannot be programmed, nor can it make decisions on its own to move in any way or perform any type of surgical maneuver. Sometimes, however, the general term "robotic surgery" is used to refer to our technology.

Q. Why can't surgeons perform complex procedures such as cardiac surgery through 1-2 cm ports today?

A. Cardiac surgery requires an excellent view of the operative field and the ability to maneuver instruments within the chest cavity with precision and control. Surgeons historically have used the "open sternotomy" approach to heart surgery, which means splitting the breastbone, pulling back the ribs and typically results in a foot-long incision. This provides visibility and allows room for the surgeon to get his hands and instruments very close to the operative site. More recently, smaller incisions have been used to perform a variety of cardiac procedures. However, many cardiac surgeons feel the reduced access may limit visualization and may impede access to the operative field.

Q: Why isn't Intuitive Surgical getting involved in the Defense Advanced Research Projects Agency (DARPA) Defense Sciences project to develop robotic technology for use on the battlefield?

A: Intuitive Surgical's *da Vinci* Surgical System could theoretically be used to operate over long distances. However, optimizing the *da Vinci* System for remote or telesurgery applications is not the primary focus of the company's product design and development efforts, and this capability is not available with the current *da Vinci* Surgical System.

While the company is supportive of the forward-looking research that SRI is engaged in, Intuitive Surgical is optimizing its products for applications in minimally invasive surgery today. We are committed to the development of products that can extend the benefits of minimally invasive surgery to the broadest possible range of patients.

Q. While using the *da Vinci* Surgical System, can the surgeon feel anything inside the patient's chest or abdomen?

A. The system relays some force feedback sensations from the operative field back to the surgeon throughout the procedure. This force feedback provides a substitute for tactile sensation and is augmented by the enhanced vision provided by the high-resolution 3D view.

Q: What procedures have been performed using the da Vinci Surgical System? What additional procedures are possible?

A: The da Vinci System is a robotic surgical platform designed to enable complex procedures of all types to be performed through 1-2 cm incisions or operating "ports." To date, tens of thousands of procedures including general, urologic, gynecologic, thoracoscopic, and thoracoscopically-assisted cardiotomy procedures have been performed using the da Vinci Surgical System.

Q: Where is Intuitive headquartered?

A: Intuitive's principal corporate offices are located at:

1266 Kifer Road Sunnyvale, CA 94086

Q: How are Intuitive's products sold?

A: We currently market our system in the United States through a direct sales organization to Hospitals. We have European operations headquartered in Aubonne, Switzerland. We sell directly in some European countries and use distributors and agents in the rest of the world.

Q: How many da Vinci Systems have been sold?

A: As of March 31, 2008, there have been 867 unit shipments worldwide - 647 in the United States, 148 in Europe and 72 in the rest of the world.

Q: How many employees does Intuitive have?

A: As of March 31, 2008 we had total of 859 employees.

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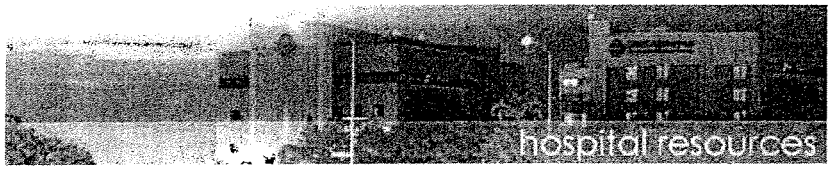
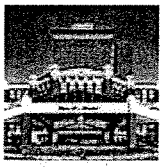


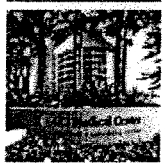
Home Hospital Resources

Hospital Resources - Broad Economic Impact

A sound technology acquisition model seeks to align net health outcomes with the economic value of innovation. When costs and benefits are weighed together, technological advances over time have proven to be worth far more than their costs.

A technology assessment of the *da Vinci*® Surgical System will demonstrate broad hospital-wide benefit in the areas of market share growth, utilization mix, productivity and efficiency.





Market Share Growth
- Increased patient satisfaction
- New patients and increased referrals
- Recruitment and retention of top surgical talent
- Enhanced hospital reputation

Maximizing Efficiencies
- Decreased length of stay
- Decreased complications
- Decreased blood transfusions
- Decreased nursing staff ratios
- Decreased post-op pain management

Broad Utilization Mix
- Application across multiple surgical specialties
- Cardiac
- Urology
- General Surgery

Intuitive Surgical is committed to your hospital's success and would like to help you build a successful robotics program. We offer support in three primary areas:

- Surgeon training
- Hospital marketing programs
- Reimbursement support

Administrator Perspective

Watch Video

" ...The opportunity for increased revenue, increased market share, increased surgical volume, which for most health care organizations is very profitable, is very substantial. We are very pleased with the return on investment..."

Nancy M. Schlichting.
President & Chief Executive Officer
Henry Ford Health System
Detroit, Michigan

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Laparoscopic Robotic Surgery Coding and Reimbursement Considerations

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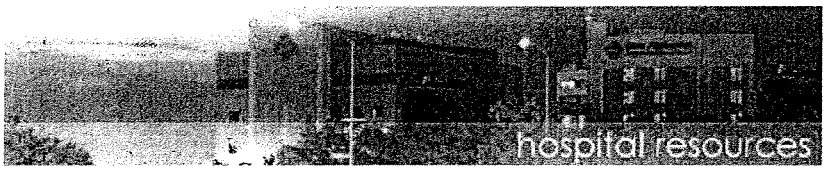


Home Hospital Resources Robotic-Assisted Surgery

The Development of Robotic-Assisted Surgery

Minimally invasive surgery (MIS) allows physicians to perform many kinds of major surgery with less patient trauma and pain, minimal scarring, faster recovery and shorter hospital stays. Surgeries are performed through small incisions, which replace the large incisions needed for conventional open surgeries.

The use of robotics takes minimally invasive techniques into a new era, further minimizing the physical and emotional impact of surgery on patients. Robotically-assisted MIS represents a third generation of surgery, one which builds upon the advances to open surgery introduced by MIS. Robotic technology takes surgery beyond the limits of the human hand, introducing precise, versatile instrument movement combined with three-dimensional visualization of the operative site.

Benefits of MIS

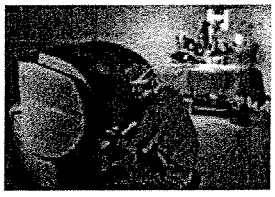
The benefits of MIS are numerous. Traditional surgery often requires a lengthy hospital stay and weeks of recovery. With minimally invasive surgery, the goal is to accomplish internal repair while leaving the body surface as natural as it was prior to surgery. Many procedures require only several days in the hospital and promote reduced recovery time. Patients can often get back to their normal routines more quickly.

Robotics and Procedural Innovation

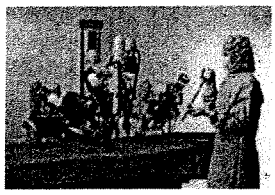
Intuitive Surgical is devoted to the development of computer-enhanced, robotic surgical systems that enhance surgeons' capabilities, improve patient outcomes and reduce healthcare costs. The *da Vinci* Surgical System can be used for a wide variety of surgical procedures.

By integrating computer-enhanced technology with the surgeon's skill, the *da Vinci* System enables surgeons to enhance healing and promote well-being by performing minimally invasive surgery in a manner never before experienced.

***da Vinci*® Surgical System**



da Vinci Surgical System Surgeon Console



Patient-Side Cart

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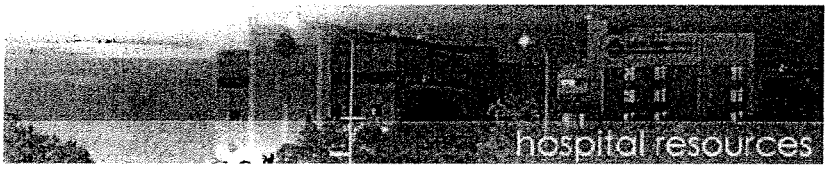


Home Hospital Resources Clinical Validation

Clinical Validation

The *da Vinci*® Surgical System has been embraced by top surgeons from a spectrum of community and academic institutions for use in a broad range of cardiac, thoracic, urologic and general surgical procedures. Please also see our extensive clinical references supporting robotic-assisted minimally-invasive surgery.

Cardiac

"Adding the *da Vinci* to our vast range of advanced surgical capabilities dramatically expands our ability to perform minimally invasive techniques. It allows us to perform major cardiac procedures endoscopically through tiny ports of access, providing our patients with a less traumatic, less painful and more cosmetically pleasing alternative to open surgery."

Scott Goldman, M.D.
Chairman, Main Line Health Department of Surgery
Lankenau Hospital
Wynnewood, PA

"The *da Vinci* System makes it possible to offer a wider range of patients a minimally invasive open-heart procedure to repair the mitral valve. This will allow more patients to benefit from both shorter hospital stays and reduced recovery times."

W. Randolph Chitwood, Jr. M.D.
Professor and Chairman Department of Surgery
Chief of Cardiothoracic Surgery
East Carolina University School of Medicine

Urology

"As a trained surgical oncologist, *da Vinci* has allowed me to offer my patients a better cancer operation with improved clinical outcomes."

Thomas E. Ahlering, M.D.
Associate Professor of Urology
Director, Urological Oncology
University of California Irvine Medical Center

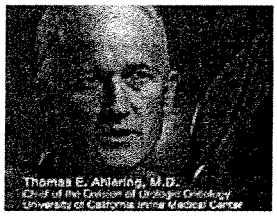
"In my experience, robotics allows for greater surgical precision which leads to improvements in cancer control, potency, and urinary function."

Mani Menon, M.D.
Director, Vattikuti Urology Institute
Henry Ford Health System

General Surgery

"I can achieve superb clinical results in technically demanding operations such as Heller myotomy and Esophagectomy with fewer complications."

Surgeon Perspective



Watch Video

"As a trained surgical oncologist, the da Vinci System has allowed me to offer my patients a better cancer operation with improved clinical outcomes."

Thomas E. Ahlering, M.D.
Associate Professor of Urology
Director, Urological Oncology
University of California Irvine Medical Center

Santiago Horgan, M.D.
Director of Minimally Invasive Surgery
University of California, San Diego

To determine whether the FDA has cleared da Vinci Surgical System for use in a specific procedure, please refer to the FDA Clearance page.

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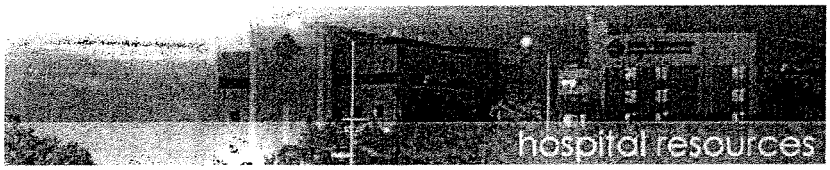
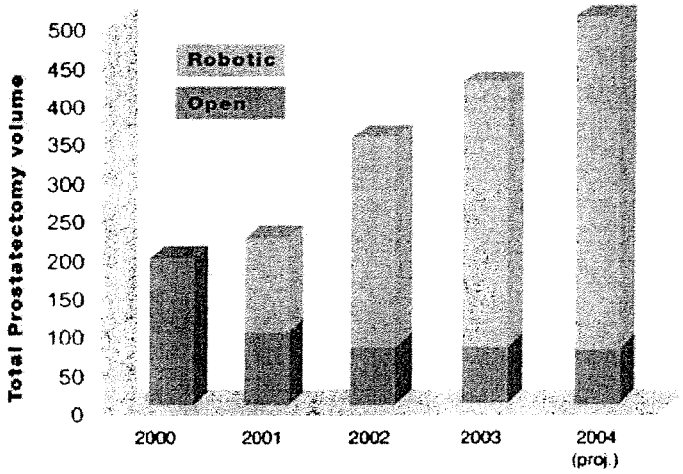


Home Hospital Resources Success Stories

Success Stories

Robotic Prostatectomy Program Volume - Data from Large Metropolitan Hospital



Success Stories

"We've seen double-digit increases in the number of prostate cases performed since we introduced the *da Vinci* Surgical System."

Nancy M. Schlichting
President & CEO
Henry Ford Health System
Detroit, Michigan

Market Share Growth

The following are three examples of hospitals that have captured market share with the *da Vinci*® Surgical System. These organizations have established a leadership position within their communities and have achieved a significant return on investment.

Case Study - Small Community Hospital

Beds: 100
ORs: 4
Purchased *da Vinci* System: 2000
Prostatectomy Volume prior to *da Vinci* System Purchase: 17/Year

da Vinci Prostatectomy Growth

2000	2001	2002	2003	2004
17	43	100	142	189

ROI (IRR) = 22% System Payback = 4 Years

Case Study - Academic Medical Center

Beds: 453

ORs: 11
Purchased *da Vinci* System: 2002
Prostatectomy Volume prior to *da Vinci* System Purchase: 25/Year

da Vinci Prostatectomy Growth

2001	2002	2003	2004
25	37	104	162

ROI (IRR) = 23% System Payback = 4 Years

Case Study - Large Metropolitan Hospital

Beds: 903
ORs: 28
Purchased **First** *da Vinci* System: 2001
Purchased **Second** *da Vinci* System: 2004
Prostatectomy Volume prior to *da Vinci* System Purchase: 190/Year

da Vinci Prostatectomy Growth

2001	2002	2003	2004
190	345	415	729

ROI (IRR) = 38% System Payback = 3 Years

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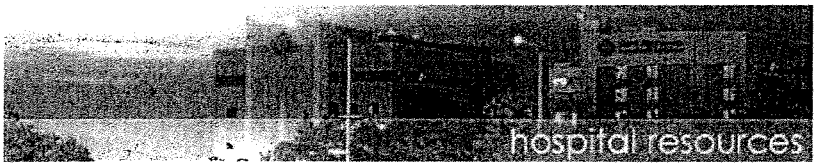

Home Hospital Resources Product Training

Product Training Overview*

Training and support are an essential part of fulfilling a hospital's strategic plan of developing a successful surgical robotics program. The primary purpose of Intuitive Surgical training is to develop a surgical teamâ€™s confidence and competence in the use of the *da Vinci*® Surgical System. The ultimate goal is to develop a self-sufficient surgical team capable of performing *da Vinci* procedures with minimal product support and instruction.

Intuitive Surgicalâ€™s comprehensive training pathway is designed to optimize safety, efficacy and utilization of the *da Vinci* System in minimally invasive surgery. The following chart offers an overview of the three components of Intuitive's *da Vinci* Surgical System training:

System Training	Procedure Training	Clinical Support
System preparation	Case study review	Procedure map
Intra- and post-operative System management	Live procedure observation	Surgeon proctoring
Inanimate labs	Laboratory sessions	Additional skills / laboratory sessions
da Vinci System skills development	*da Vinci* surgical skills development	In-services
Laboratory sessions	Surgeon-led training	Procedure dry-run

Please see our Customer Services section for further details on our comprehensive System training programs, and speak with your Intuitive Surgical representative about your hospital's needs.

Contacts

Sales
US: 888-409-4774 ext.1
International: 33-1-39-04-26-90

Product Support
US: 800-876-1310
International: 33-1-39-04-26-90

** Intuitive Surgical only trains on the use of the da Vinci Surgical System. The information provided during Intuitive Surgical training is not intended to substitute for formal medical training or certification. Intuitive Surgical is in no way responsible for surgical credentialing or for training in surgical procedure or technique, nor are the training programs described a replacement for hospital credentialing requirements. All curricula described are subject to change depending on available resources, as well as on the needs of the course participants.*

Some of the training described may be provided by organizations or entities other than Intuitive, and Intuitive is not responsible for the content of these programs. Surgeon proctors are independent contractors. The listed prices are for services rendered by the independent surgeon proctors. A list of surgeon proctors can be provided upon request. Intuitive Surgical does not train on surgical procedures or techniques, nor does it take responsibility for proctoring services provided by the independent surgeon proctors. The hospital/surgeon purchases the proctoring

service as part of training they have independently determined to be part of their credentialing requirement; Intuitive Surgical's role is merely to coordinate between the hospital/surgeon and the proctor. The proctors and the hospital/surgeon are always free to negotiate with each other directly.

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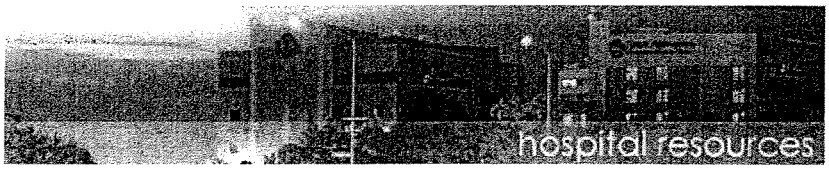

Home Hospital Resources Service & Support

Service & Support

24 x 7 Product Support

Intuitive Surgical offers a complete range of support agreements to ensure optimal performance and "up-time" of the *da Vinci*® Surgical System. Tiered product support plans range from the maximum protection afforded by our Premium Service Plan to economical plans tailored to meet the individual requirements of your hospital.

Premium Support	Full Service
98% Up-Time Guarantee	24-Hour Response Time
Priority Software Upgrades	Periodic Software Upgrades
Endoscope Exchange Program	Preferred Endoscope Pricing

Additionally, all Intuitive Surgical Service Plans include:

- Preventative Maintenance
- Parts Exchange
- Labor and Travel
- Multi-Year Agreements
- Manned Call Center 24 x 7
- Worldwide team of Field Engineers
- Real-time advanced technical support
- Worldwide distribution for parts accessibility 24 x 7

Please see our Customer Services section for further details on our comprehensive product service and support programs, and speak with your Intuitive Surgical representative about your hospital's needs.

Contacts

Sales
US: 888-409-4774 ext.1
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Reimbursement Support
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International: +41.21.821.20.20

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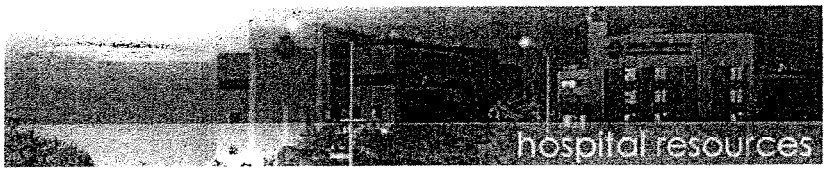

Home Hospital Resources

Educational Grants

Intuitive Surgical Inc. is pleased to announce the availability of grants to support Clinical Robotic Fellowships and Research Robotic Fellowships.

Grant Instructions
Application Cover Sheet
Biographical Summary Form

Purpose

The purpose of these grants is to support clinical work and research in the field of robotics.

The Clinical Robotic Fellowship grant is open to any institution that has a busy clinical robotic program to help train a fellow in clinical robotic work.

The Research Robotic Fellowship grant is open to any principal investigator to support the salary of a research fellow whose focus will be in robotic research.

Awards are conferred on a competitive basis by submission of a grant application.

Available Grants

Both grant amounts are for $75,000 for the 2009-2010 academic year. The grant monies are to be used to support fellow salary, benefits and travel.

Grant Guidelines

To apply for either grant, complete the application. Enclose an NIH biosketch curriculum vitae for the principal investigator or mentor. The deadline for submission is January 15, 2009. Only complete application packets will be considered. Awardees will be notified by February 15, 2009. Grant monies must be used to support fellow salary expenses during the 2009-2010 academic year.

For the Clinical Robotic Fellowship grant, the institution must provide goals and objectives for the fellowship, fellowship curriculum, evidence of adequate clinical training, evaluation methods, adequate supervision and training, and opportunities for clinical research. Please forward these with the application.

For the Research Robotic Fellowship, the principal investigator must provide evidence of adequate institutional support for the fellow to succeed in his/her research endeavors and evidence of adequate mentoring. A minimum of 75 percent of the fellow's time must be spent in the research proposed in the application. Please forward these with the application. Robotic research can be in clinical, technology or applied research areas.

If funded, the successful Robotics Fellowship Program must provide:

1. Name and contact information for the selected Robotics Fellow

2. Protected time for the Robotics Fellow to attend training sessions at Intuitive Surgical
3. List of all research activities to be accomplished by the Robotics Fellow during training, including:
    1. Publications submitted, accepted or published
    2. Presentations
    3. Abstracts
    4. Book chapters
    5. Posters
    6. Other research activity
4. Number of robotic cases in which the Robotics Fellow participated, including summary of type of cases (for Clinical Robotics Fellowship)
5. Amount of time the Robotics Fellow spent at the patient side and at the console (for Clinical Robotics Fellowship)
6. Overall evaluation of the Robotics Fellowship by the Robotics Fellow and the program director
7. Accounting of how the Robotics Fellowship funds were utilized

Selection criteria will include:

Sufficient clinical robotic work to support a Clinical Robotic Fellowship

Sufficient opportunity for research

Sufficient mentoring

Goals and objectives

Evaluation methods

Curriculum

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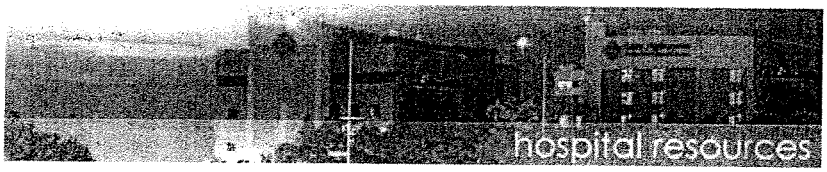

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Reimbursement Support
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Sales Support

For questions about products and services, please contact our Customer Service Department toll-free at 888-409-4774 ext.1. From outside the United States, please call +41.21.821.20.20. To email us, click here.

Patients

Ask your doctor about whether robotic-assisted surgery may be approriate for you, and always ask about the risks and benefits of all medical treatment options. For more information, please refer to the Patient Resources section, and use our hospital locator to find a doctor or hospital using the *da Vinci* Surgical System.

Product Training

For more information on customer and distributor training, please visit the Training section of this site, or contact your local Intuitive Surgical sales representative. For local representative contact information, please call our Customer Service Department toll-free at 888-409-4774 Ext.1. From outside the United States, please call +41.21.821.20.20.

Product Support

If you have questions about your installation, please contact our Product Support Department toll-free at 800-876-1310. From outside the United States, please call +41.21.821.20.30.

Reimbursement Support

For questions about reimbursement, call our Reimbursement Hotline at 1-888-868-4647 x3128 or email us. From outside the United States, please call +41.21.821.20.20.

Billing

If you are an existing Intuitive Surgical customer and have billing questions, please contact our Accounts Receivable Department at 408-523-2216 within the United States or at +41.21.821.20.20 from outside the United States.

News and Media

Please visit the Newsroom area of this site to download product photos and other resources for media professionals. You can also download our media kit. For interviews, please contact our corporate headquarters, toll-free at 800-876-1310. From outside the United States, please call +41.21.821.20.00. To email us, click here.

Investors

Please note, Intuitive Surgical will not answer investor-related questions submitted

via email unless a phone number for a reply is provided. Please refer to the Investor Relations section of this site, and to email us click here.

Employment

For more information on career opportunities at Intuitive Surgical, please visit the Careers section of this site.

Web Site

To submit comments or questions regarding the Intuitive Surgical web site, please email the webmaster.

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Fax for Customer Service &
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Physician Resources

In order to better inform surgeons interested in using the *da Vinci*® System, this section offers resources on robotic-assisted minimally invasive surgery (MIS), with a focus on selected procedures performed using the *da Vinci* Surgical System.

Cardiac Applications
General Applications
Thoracic Applications
Urologic Applications
Gynecologic Applications
Pediatric Applications

Procedure Value

Intuitive Surgical's technology offers hospitals and surgeons the opportunity to extend the benefits of minimally invasive surgery to the broadest possible base of patients. In many cases, the *da Vinci*® System enables patients to receive the gold standard surgical treatment with a minimally invasive approach, creating a significantly more valuable procedure.

Procedure Focus

The *da Vinci* Surgical System is being used today in a wide variety of surgical procedures, including the following:

Mitral valve repair

- Cardiac revascularization
- Gastric bypass surgery
- Radical prostatectomy (*da Vinci* Prostatectomy)
- Hysterectomy, myomectomy and sacrocolpopexy
- Cardiac tissue ablation
- Epicardial pacemaker lead placement for biventricular resynchronization

For a complete listing of the clinical applications of the *da Vinci* System cleared by the FDA for marketing within the United States refer to the FDA Clearance page.

Clinical Collaboration

Intuitive Surgical shares your goal of helping patients return to active and productive lives. We work closely with our surgeons to support the development and introduction of new surgical procedures that improve clinical outcomes and redefine the standard of care.

Clinical Applications

Watch Video

"The System in my view really is a step towards the future. I think that surgery as a specialty has been behind other industries - the space industry, the automobile industry - in taking advantage of computer-assisted procedures and taking advantage of robotic types of technology. So in my view this system is the first clear, solid step forward in that direction."

Mark Talamini, M.D., F.A.C.S.
Professor of Surgery
Chairman, Department of Surgery
University of California, San Diego

To determine whether the FDA has cleared da Vinci Surgical System for use in a specific procedure, please refer to the FDA Clearance page.

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Cardiac Applications

Robotic-assisted minimally invasive cardiac procedures avoid the drawbacks of traditional heart surgery, including blood loss, pain and scarring associated with sternotomy.

The *da Vinci*® System offers breakthrough capabilities that enable surgeons to operate through smaller incisions made between the ribs. As a result, the *da Vinci* Surgical System is changing the practice of cardiac surgery as it's known today. Data suggests that recovery time, pain and trauma are reduced significantly through this less invasive approach.

For most patients, minimally invasive cardiac procedures performed with the *da Vinci* Surgical System can offer numerous potential benefits over open-chest surgery, including:

- Shorter hospital stay
- Less pain and scarring
- Less risk of infection
- Less blood loss and fewer transfusions
- Faster recovery
- Quicker return to normal activities.

Read more about:

Cardiac Revascularization
Mitral Valve Repair

Surgeon Perspective

Watch Video

" If we can offer the gold standard treatment through four small incisions..."

Douglas A. Murphy, M.D.
Chief, Section of Cardiothoracic Surgery
Saint Joseph's Hospital
Atlanta, GA

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Home Physician Resources Cardiac Surgery Cardiac Revascularization

da Vinci® Cardiac Revascularization

Symposium Webcast
Clinical References

da Vinci Cardiac Revascularization (dVCR) is a radical modification of conventional coronary artery bypass surgery. It can be performed through a mini-thoracotomy rather than traditional sternotomy, without either cardiopulmonary bypass or cardioplegic arrest. Avoiding sternotomy and CPB provides an opportunity to provide the gold-standard treatment for coronary artery disease while reducing health-care resources and avoiding the documented risks and complications of sternotomy and CPB.

In Single-Vessel Small Thoracotomy (SVST) and Multi-Vessel Small Thoracotomy (MVST), the *da Vinci* Surgical System provides the precise instrumentation needed for the expeditious harvesting of the IMA from origin to bifurcation and the anastomosis of the LIMA to the LAD, all through a small, left-chest incision. With the use of a heart stabilization and exposure device, the procedure can be performed while the heart is still beating. LIMA-LAD anastomosis has a patency rate of 95% at 10 years and is the major factor in predicting long-term survival in patients with coronary artery disease.[1]

SVST and MVST are critical steps towards the performance of completely robotic – from IMA harvest to coronary anastomosis – cardiac revascularization. The precision, dexterity and superior visualization offered by the *da Vinci* System are essential to offering non-sternotomy benefits to patients undergoing coronary artery bypass surgery.

EndoWrist Instruments Optimized for dVCR

Micro-Bipolar Forceps

- Finely serrated 6 mm jaws can expedite the IMA harvest
- Jaw design is ideally suited for delicate tissue handling
- Bipolar cautery facilitates side-branch ligation with minimal thermal dispersion

da Vinci MVST Benefit Summary

- Uses *da Vinci* Bilateral IMA Harvest
- Enables a mini-thoracotomy, multivessel procedure
- Enables non-robotic multivessel grafting to anterior and lateral wall coronary arteries

Clinical Validation

Dr. Louis Brunsting
Cardiothoracic Surgery Associates, P.L.L.C.
Nashville, TN

Watch Video

Dr. Brunsting speaks about the benefits of minimally invasive cardiac surgery for patients, Cardiologists and hospital administrators.

Makes multivessel, off-pump procedures possible

Can help speed patient recovery

Promotes hybrid therapy

"At Columbia Presbyterian Hospital, we've performed nearly 100 cardiac surgery cases using the da Vinci® Surgical System. In quality of life surveys administered to patients undergoing cardiac procedures, those who had robotic procedures commented they had a faster recovery time, improved social functioning and returned to work faster than patients undergoing traditional surgery."

Michael Argenziano, M.D.
Assistant Professor of Surgery
Columbia University College of Physicians and Surgeons
New York Presbyterian Hospital

1. Tatoulis J, Buxton BF, Fuller JA. Patencies of 2127 arterial to coronary conduits over 15 years. *Ann Thorac Surg.* 2004 Jan;77(1):93-101. Abstract.

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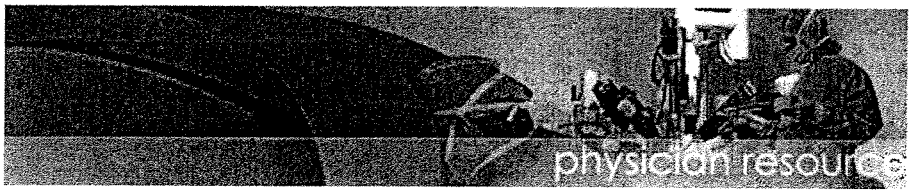

Home Physician Resources Cardiac Surgery Mitral Valve Repair

da Vinci® Mitral Valve Repair

Procedure Video
Procedure Brochure
Clinical References
Procedure Symposium

By providing superior visualization and exposure of the valve annulus, leaflets and subvalvular structures, *da Vinci* MVR can enable more complex mitral valve repair with the most minimally invasive approach possible. The *da Vinci* System can also provide improved dexterity and precision during delicate mitral valve reconstruction; enhanced instrument control can facilitate more complex MVR—including anterior leaflet and bileaflet prolapse.

This combination of superior visualization, dexterity and control potentially allows surgeons to offer repair instead of valve replacement to a broader range of patients. Moreover, *da Vinci* MVR requires no sternotomy and can potentially help reduce ventilation times, transfusion rates and postoperative length of stay, while enabling a quicker return to normal activities.

New *EndoWrist*® Instruments Optimized for *da Vinci* MVR

EndoWrist Curved Scissors

- Narrow cutting-profile enables precise sculpting of valve tissue
- Curved tip enhances visualization of cutting plane

EndoWrist Resano Forceps

- Atraumatic jaw design facilitates delicate handling of valve and pericardial tissue
- Tip-closing grip enables secure tissue grasping

Additional Resources

***da Vinci* MVR Symposium**
View archived presentations from the *da Vinci* Mitral Valve Repair Symposium, held in Las Vegas on February 23-24, 2007.
▸ View the symposium

***da Vinci* MVR Live Case Video**
East Carolina University cardiothoracic surgeon W. Randolph Chitwood and his surgical team performing *da Vinci* Mitral Valve Repair.
Watch Live Case Video

W. Randolph Chitwood Jr., M.D.,
FACS, FRCS (Eng) Senior Associate
Vice-Chancellor for Health Affairs
Director, North Carolina
Cardiovascular Diseases Institute
Chief, Division of Cardiothoracic and
Vascular Surgery
East Carolina University

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General Surgical Applications

The *da Vinci*® Surgical System provides general surgeons the potential to convert numerous complex procedures to MIS and offer new, minimally invasive therapies to millions of patients. The *da Vinci* Surgical System can be used across a wide array of general surgical procedures such as bariatric, esophageal and colorectal surgery.

Procedures

da Vinci Low Anterior Resection

- Lower circumferential positive margin rates
- Superior exposure, countertraction and dissection of the rectum
- Improved autonomic nerve identification and preservation

Read more...

da Vinci Roux-En-Y Gastric Bypass

- Reduced risk of anastomotic leak and stricture
- Shorter procedure times for high-BMI patients
- Improved surgeon comfort

Read more...

da Vinci Nissen Fundoplication

- Enables superb visualization of esophagogastric anatomy
- Enhances dexterity for complex re-do operations
- Allows increased precision for crural and fundoplication stitches

Read more...

da Vinci Heller Myotomy

- Enables superb visualization of tissue planes
- Decreases mucosal perforation rates

Clinical Validation

"I can achieve superb clinical results in technically demanding operations such as Heller myotomy and esophagectomy with fewer complications".

Santiago Horgan, M.D.
Director of Minimally Invasive Surgery
University of California, San Diego

"The results of robotic assisted surgery compare favorably with those of conventional laparoscopy with respect to mortality, complications, and length of stay. Robotic assisted surgery is safe and effective, and is a new reality for American surgery. The role of these devices in surgery will expand as the technology

evolves."

Mark A. Talamini, M.D. et al
"A Prospective Analysis Of 211
Robotic Assisted Surgical
Procedures"
in *Surgical Endoscopy*

Mark A. Talamini, M.D. is Professor of Surgery & Chairman, Department of Surgery, University of California, San Diego

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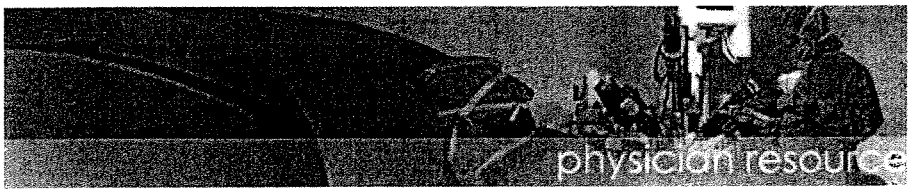

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Gastric Bypass

Overview

Procedure Brochure
Clinical References

The laparoscopic Roux-en-Y gastric bypass is one of the most technically demanding bariatric operations. The procedure requires advanced skills such as anastomotic suturing, knot tying, stapling and two-handed tissue manipulation that surgeons typically do not gain with more common laparoscopic procedures.

One of the most difficult tasks involved in the Roux-en-Y gastric bypass is constructing the gastrojejunostomy. The learning curve for performing the anastomosis may be the most important aspect of the procedure since anastomotic leaks are associated with potentially high rates of mortality and morbidities, including re-operation and sepsis. Additionally, suboptimal construction of the gastrojejunostomy may lead to an anastomotic stricture requiring post-operative intervention, including anastomotic dilatation.

The *da Vinci*® Surgical System delivers enhanced surgical capabilities necessary to master the "hand-sewn" anastomotic technique. These include high-resolution 3D visualization, Intuitive Motion and exclusive *EndoWrist*® instrumentation.

The *da Vinci* System's exclusive 3D visualization provides a brilliant, highly magnified view of the operative field, enabling safer, more accurate identification and navigation of tissue planes. An intuitive, ergonomic interface allows physicians to fluidly translate open suturing skills to minimally invasive surgery, reducing the barriers to entry for those considering a laparoscopic approach. Robotic instrument control can also greatly minimize surgeon fatigue and patient trauma that can result from using the abdominal wall for leverage during surgery on high-BMI patients. Moreover, articulating *EndoWrist* Instruments allow complete wrist dexterity, providing control and precision when suturing the gastrojejunostomy.

da Vinci Gastric Bypass – Potential Benefits

- Reduced risk of anastomotic leak and stricture
- Shorter procedure times for high-BMI patients
- Improved surgeon comfort

EndoWrist Instruments Optimized for *da Vinci* Gastric Bypass

Clinical Validation

"We believe, and the surgeons who responded to our survey agree, that the robotically assisted hand-sewn gastrojejunostomy is superior to any currently available minimally invasive anastomotic technique."

Garth Jacobsen, M.D., Robert Berger, M.D. and Santiago Horgan, M.D. in
Journal of Laparoendoscopic & Advanced Surgical Techniques

Further Information

Instruments & Accessories Catalog

Intuitive Harmonic™ Curved Shears

- Precise cutting and coagulation
- Fewer instrument exchanges
- Minimal lateral thermal damage

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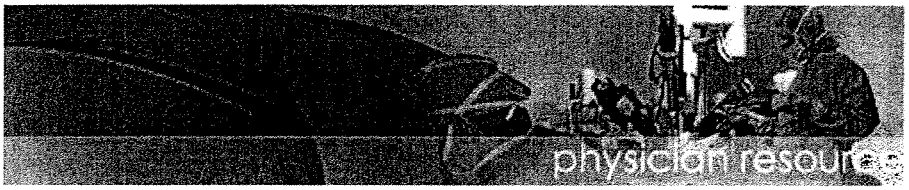

Home Physician Resources General Surgery Nissen Fundoplication

da Vinci® Nissen Fundoplication

Clinical References

da Vinci Nissen Fundoplication is a minimally invasive surgical treatment for Gastroesophageal Reflux Disease (GERD) — widely known as acid reflux or chronic heartburn. While the current standard of care for GERD is drug therapy, persistent and/or severe cases may require surgery to relieve symptoms. Antireflux surgery, including the Nissen Fundoplication, is well-established as an effective and durable therapy for gastroesophageal reflux disease and its complications.

The *da Vinci* Nissen Fundoplication, the surgeon wraps a portion of the stomach, known as the gastric fundus, around the lower esophageal sphincter, creating a mechanical barrier designed to prevent the flow of acid into the esophagus.

Advantages of the *da Vinci* Nissen Fundoplication for the surgeon include superb visualization of esophagogastric anatomy, enhanced dexterity for complex re-do operations and increased control for precise crural and fundoplication stitches made through a minimal incision.

Benefit Summary

- Enables superb visualization of esophagogastric anatomy
- Enhances dexterity for complex re-do operations
- Allows increased precision for crural and fundoplication stitches

Clinical Validation

"Robotic laparoscopic fundoplication can be performed safely without increased morbidity. Potential advantages include enhanced precision [and] improved dexterity. ..."

Dimitrios Stefanidis, MD, PhD in *Current Treatment Options in Gastroenterology*

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Instruments & Accessories Catalog

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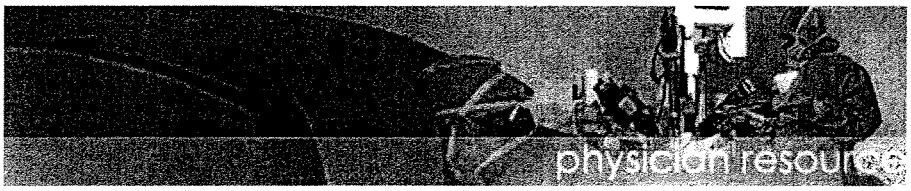

Home Physician Resources General Surgery Low Anterior Resection

Low Anterior Resection

Overview

da Vinci® Low Anterior Resection maintains the oncologic principles of open low anterior resection while also providing the potential benefits of a minimally invasive approach.

The *da Vinci* System's 3D visualization, wristed instrumentation and intuitive movement help provide the ultimate, precise, minimally invasive approach for low anterior resection.

Interactive Procedure Guide
Surgical Steps
Printable Procedure Guide
Procedure Card
Dr. Pigazzi Clinical Paper
Dr. Kim Video: Key Procedure Steps

Potential Surgeon Benefits

The unsurpassed visualization, precision, dexterity and control provided by the da Vinci Surgical System offers the following potential surgeon benefits:

- Lower circumferential positive margin rates[1,2]
- Fewer anastomotic leaks and fewer conversions to open surgery, as compared to laparoscopy[1,2]
- Superior exposure, countertraction and dissection of the rectum[1,2]
- Improved autonomic nerve identification and preservation1,2
- Unsurpassed ergonomics with equal access to left and right rectal sidewalls[1,2]
- Faster takedown of the splenic flexure[1]

Potential Patient Benefits

da Vinci Low Anterior Resection offers patients numerous potential benefits:

- Better clinical outcomes for cancer control in many cases[1]
- Quicker return to bowel function[1]
- Quicker time to normal diet[1]
- Significantly less pain
- Less blood loss
- Less risk of wound infection
- Shorter hospital stay[1]

Shorter recovery time[1]

Suggested Patient Selection Criteria for Early Cases

Good performance status

Non-obese patients (BMI <30)

Healthy: age <70, few co-morbidities

No previous intra-abdominal or pelvic surgery

No prior chemotherapy or pelvic radiotherapy

Low volume disease (non-bulky tumors)

Avoid patients with moderate to severe cardiopulmonary compromise. Prolonged operative times and steep Trendelenburg positioning may be poorly tolerated by patients with cardiopulmonary disease.

Next: OR Setup & Patient Prep

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1 Hellan M, Anderson C, Ellenhorn JD, Paz B, Pigazzi A. Short-Term Outcomes After Robotic-Assisted Total Mesorectal Excision for Rectal Cancer. Annals of Surgical Oncology. 2007 10;1245

2 Pigazzi A, Ellenhorn JD, Ballantyne GH, Paz IB. Robotic-assisted laparoscopic resection with total mesorectal excision for rectal cancer. Surg Endosc. 2006 20;1521-1525

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Gynecologic Applications

The *da Vinci*® System's intuitive interface provides breakthrough capabilities, allowing more gynecologic surgeons to use a minimally invasive approach in complex procedures.

Initial studies suggest that the enhanced visualization, dexterity, precision and control offered by the *da Vinci*® System can enable gynecologic surgeons to more easily perform complex, minimally invasive procedures and potentially achieve better clinical outcomes than with conventional laparoscopic surgery.[1, 2]

Intuitive Surgical is shaping the future of gynecologic surgery with the *da Vinci* Hysterectomy, *da Vinci* Myomectomy and *da Vinci* Sacrocolpopexy. Performed with the *da Vinci* Surgical System, these procedures represent the most advanced minimally invasive approach to gynecologic surgery.

For most patients, minimally invasive procedures performed with the *da Vinci* Surgical System can offer numerous potential benefits over open surgery, including:

- Shorter hospital stay
- Less pain and scarring
- Less risk of infection
- Less blood loss and fewer transfusions
- Faster recovery
- Quicker return to normal activities.

da Vinci Surgical System
Representative Gynecologic Applications

da Vinci Myomectomy

- Enables precise, three-layer suture reconstruction of the uterus
- Enhances capabilities for meticulous dissection and enucleation of large myomas
- Provides superior visualization of tissue planes

da Vinci Hysterectomy

Offers enhanced dexterity critical for complex hysterectomies - e.g. endometrial cancer and endometriosis

Provides superb visualization for dissection around ureters and bladder, more precise colpotomy, easier vaginal cuff suture-closure.

da Vinci Sacrocolpopexy

Improved access to the pelvis compared to open and conventional laparoscopic approaches

Easier, more precise rectovaginal and presacral dissections

Improved handling of suture and mesh for more accurate graft placement and attachment

Easier, quicker and more precise suturing for:

- Attaching the graft to the anterior and posterior vaginal walls and the sacrum
- Retroperitonealizing the graft

Control of the camera and all three operative arms for the ultimate in surgical autonomy, precision and efficiency

A minimally invasive surgical approach to sacrocolpopexy, the gold standard procedure for severe uterine or vaginal vault prolapse[3]

A reproducible approach that restores open surgical principles to laparoscopic surgery, which is both easier to learn, perform and teach compared to conventional laparoscopy

Read more ...

da Vinci Hysterectomy

da Vinci Myomectomy

da Vinci Sacrocolpopexy

1. Advincula A, Song A, Burke W, Reynolds RK. Preliminary experience with robot-assisted laparoscopic myomectomy. *J Am Assoc Gyn Lap* 11(4): 511-518.
Reynolds K, Advincula A. Robotic-Assisted Minimally Invasive Hysterectomy.

2. 2. Unpublished study (as of 7/05) submitted to Intuitive Surgical.

3. Elliott DS, Krambeck AE, Chow GK. Long-term results of robotic assisted laparoscopic sacrocolpopexy for the treatment of high grade vaginal vault prolapse. J Urol. 2006 Aug;176 (2):655-9. Abstract.

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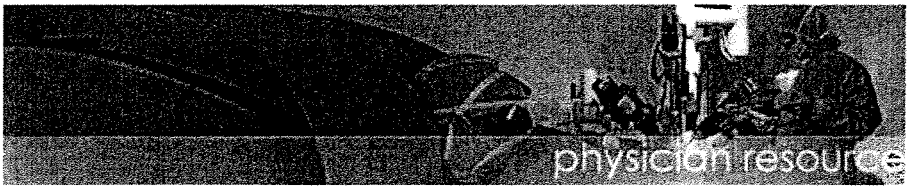

Home Physician Resources Gynecologic Surgery Hysterectomy

da Vinci® Hysterectomy

Surgeons perform 600,000 hysterectomies each year in the United States alone. Despite general preference for minimally invasive procedures, the majority of these surgeries are still performed using large incisions. In fact,

Procedure Brochure
Patient Brochure
Clinical References
daVinciHysterectomy.com

- 65% of those performed are total abdominal hysterectomies.
- Just one in 10 are laparoscopic-assisted vaginal hysterectomies (LAVH)
- One quarter are vaginal hysterectomies[1]

Among the reasons for slow adoption of a minimally invasive approach are

- A long and difficult learning curve, especially for complex hysterectomies (e.g. endometriosis, cancer, previous pelvic surgery)
- Lack of laparoscopic training opportunities in gynecologic residency, especially for advanced techniques such as dissections and suturing

The *da Vinci*® Surgical System addresses the limitations of conventional laparoscopy by providing fully articulated instruments, high-resolution 3D vision and an intuitive, ergonomic interface. One early study suggests that these features will enable more surgeons to perform complex laparoscopic hysterectomy -- with greater ease and potentially excellent clinical outcomes.[2]

da Vinci Hysterectomy Benefit Summary

da Vinci Hysterectomy represents the most advanced minimally invasive approach to hysterectomy available today.

The rapid adoption of *da Vinci* Hysterectomy combined with increased patient inquiries has inspired an information portal dedicated to *da Vinci* Hysterectomy, www.daVinciHysterectomy.com. Physicians may refer patients to this site for further information.

Potential surgeon benefits

- Enhanced dexterity enables complex hysterectomies (e.g., endometrial cancer, endometriosis, previous pelvic surgery)
- Superb visualization of tissue planes, especially for critical for dissection

around ureters and bladder

More precise colpotomy

Easier vaginal cuff suture-closure

Potential patient benefits

Shorter hospital stay

Less pain and scarring

Less risk of wound infection

Less blood loss and fewer transfusions

Faster recovery

Quicker return to normal activities

EndoWrist® Instruments Optimized for da Vinci Hysterectomy

EndoWrist Hot Shears™

The world's first fully wristed cautery scissors
Designed to allow easier, more precise...

Dissection of uterosacral and cardinal ligaments

Dissection around ureters, bladder

Colpotomy

Features, potential benefits:

A more precise operation

Blunt dissection

Fine cutting

Localized coagulation

Faster procedure times

Fewer instrument exchanges

EndoWrist Cobra Grasper

Designed to allow secure grasping of pelvic fascial layers during cuff closure
Features, potential benefits:

4x2 interlocking teeth

Aggressive grasping

Secure retraction

60º jaw opening

Greater tissue purchase

Horizontally serrated inner jaws

Delicate needle and suture handling

1. Farquhar CM, Steiner CA. Hysterectomy rates in the United States 1990-1997. *Obstet Gynecol.* 2002 Feb;99(2):229-34.

2. Reynolds K, Advincula A. Robotic-Assisted Minimally Invasive Hysterectomy. Unpublished study

EXHIBIT 21-B

(as of 7/05) submitted to Intuitive Surgical.

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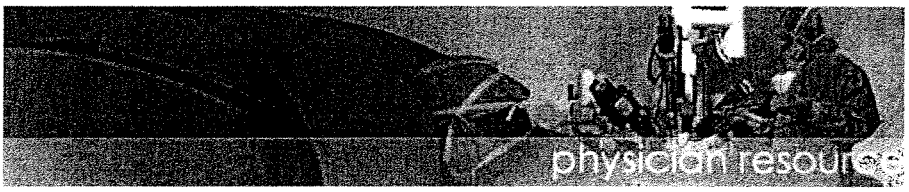

Home Physician Resources Gynecologic Surgery Myomectomy

da Vinci® Myomectomy

da Vinci® Myomectomy performed with the *da Vinci* Surgical System represents the most advanced surgical technique for the treatment of uterine fibroids.

Procedure Brochure

Clinical References

About 65,000 myomectomies are performed annually in the United States. Women who choose for myomectomy over hysterectomy are often of child-bearing age and want to retain their reproductive ability.

The majority of myomectomies are still performed through open incisions. Reasons for slow adoption of laparoscopic myomectomy may include:

- Difficult learning curve
- Myomectomy requires complex suture reconstruction of the uterus: If the uterus is not properly suture-reconstructed and healed, there could be increased risk of uterine rupture during childbirth
- Requires complex dissection, especially for multiple fibroids and large fibroids

da Vinci Myomectomy fully leverages the *da Vinci* Surgical System's state-of-the-art technology, including high resolution 3D vision, proprietary *EndoWrist*® instrumentation, Intuitive Motion and 4th arm. Recent studies suggest that these technological advantages may help surgeons provide fibroid patients with a better surgery than traditional open or conventional laparoscopic approaches can provide.

da Vinci Myomectomy Benefit Summary

da Vinci Myomectomy represents the most advanced surgical technique for the treatment of uterine fibroids.

Potential surgeon benefits

- Enables precise, three-layer suture reconstruction of the uterus
- Provides enhanced capability for meticulous dissection and enucleation of large myomas
- Provides superior visualization of tissue planes

Potential patient benefits

- Shorter hospital stay

- Less pain and scarring
- Less risk of wound infection
- Less blood loss and fewer transfusions
- Faster recovery
- Quicker return to normal activities
- Uterine preservation

EndoWrist® Instruments Optimized for *da Vinci* Myomectomy

NEW! *EndoWrist* Hot Shears

The world's first fully wristed cautery scissors
Designed to allow more precise

- Incision of serosa
- Dissection around the myoma

Features, potential benefits:

- A more precise operation
- Blunt dissection
- Fine cutting
- Localized coagulation
- Faster procedure times
- Fewer instrument exchanges

NEW! EndoWrist Cobra Grasper

Designed to allow secure grasping and retraction of fibroid tumors
Features, potential benefits:

- 4x2 interlocking teeth
  - Aggressive grasping
  - Secure retraction
- 60º jaw opening
  - Greater tissue purchase
- Horizontally serrated inner jaws
  - Delicate needle and suture handling

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da Vinci® Sacrocolpopexy for Uterine or Vaginal Vault Prolapse

The Condition:

120,000+ cases of uterine and vaginal vault prolapse are surgically treated each year in the U.S. Prolapse (or falling) of any pelvic floor organ (vagina, uterus, bladder or rectum) occurs when the connective tissues or muscles within the body cavity are weak and unable to hold the pelvis in its natural orientation.

The weakening of connective tissues accelerates with age, after child birth, with weight gain and strenuous physical labor. Women experiencing pelvic organ prolapse typically have problems with urinary incontinence, vaginal ulceration, sexual dysfunction and/or having a bowel movement.

The Treatment:

Sacrocolpopexy is a procedure to surgically correct vaginal vault prolapse where mesh is used to hold the vagina in the correct anatomical position. This procedure can also be performed following a hysterectomy to treat uterine prolapse to provide long-term support of the vagina.

Sacrocolpopexy has traditionally been performed as an open surgery. A 15-30 cm horizontal incision is made in the lower abdomen in order to manually access the inter-abdominal organs, including the uterus.

***da Vinci*® Sacrocolpopexy**

If your doctor recommends sacrocolpopexy, you may be a candidate for a new surgical procedure called *da Vinci* Sacrocolpopexy. This procedure uses a state-of-the-art surgical system designed to help your surgeon perform a minimally invasive surgery through small incisions.

For most women, *da Vinci* Sacrocolpopexy offers numerous potential benefits over a traditional open approach:

- Significantly less pain
- Less blood loss and need for transfusions
- Less risk of infection
- Less scarring

Shorter hospital stay

Shorter recovery time

Quicker return to normal activities

As with any surgery, these benefits cannot be guaranteed, as surgery is patient- and procedure- specific.

To learn more about *da Vinci* Sacrocolpopexy, talk with your doctor. To find a doctor who performs sacrocolpopexy using the *da Vinci* Surgical System, visit www.daVinciSurgery.com.

While clinical studies support the effectiveness of the da Vinci System when used in minimally invasive surgery, individual results may vary. Surgery with the da Vinci Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits. © 2007 Intuitive Surgical. All rights reserved. Intuitive, Intuitive Surgical, da Vinci, da Vinci S and EndoWrist are trademarks or registered trademarks of Intuitive Surgical.

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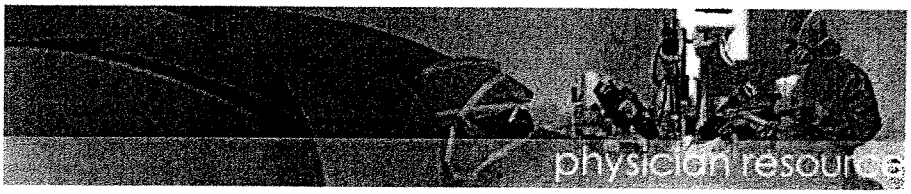

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Pediatric Applications

The use of the da Vinci® Surgical System for the treatment of pediatric patients is one of the most compelling applications of robotic-assisted minimally invasive surgery. The minimization of trauma, incision size and the resulting scarring are significant advantages provided by a less invasive surgical approach. The da Vinci System provides the further advantages of a motion scaling and tremor reduction that are critical in work in and around the small anatomical structures of infants and children.

Children's hospitals throughout the world are successfully integrating robotics into their practice, allowing them to perform better surgery and extend the benefits of minimally invasive procedures to children and their families.

Surgeon Benefits

- Enhanced 3D visualization
- Improved dexterity
- Increased range of motion
- Improved access
- Procedure conversion to MIS increases procedure value, which can attract higher patient volume

Patient Benefits

- Shorter hospital stay
- Less post-operative pain
- Less risk of infection
- Less blood loss and need for transfusions
- Less scarring and improved cosmesis
- Faster recovery and quicker return to normal activities

Representative Pediatric Procedures

- Pyeloplasty
- Ureteral reimplantation
- Cholecystectomy
- Nissen fundoplication
- Aortic ring ligation

Patent ductus ateriosus ligation (PDA)

Atrial septal defect closure

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Thoracic Applications

Robotic-assisted technology has had a profound impact on the practice of thoracic surgery, particularly for surgical procedures performed on the lungs and esophagus. With the use of the *da Vinci*® System, thymectomies and other traumatic procedures can be performed through small incisions without spreading or cutting the ribs, thereby minimizing blood loss, pain and scarring. Data suggests that recovery time, pain and trauma are reduced significantly through this less invasive approach.

Representative Procedures

- *da Vinci* Thymectomy
- *da Vinci* Lobectomy
- *da Vinci* Esophagectomy
- *da Vinci* Mediastinal Tumor Resection

Clinical Validation

"Robotic technology and the introduction of the 4th arm enhance the performance of thoracic surgical procedures. It converses a one handed surgeon to a two handed surgeon plus assistant, which leads to a decrease in procedure time, earlier discharge, less pain and quicker return to daily activities of my patients."

K. Adam Lee, MD
Cleveland Clinic, Florida

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Urologic Applications

The *da Vinci*® System's intutive interface provides breakthrough capabilities that allow many surgeons to use a minimally invasive approach, even when performing complex procedures. Robotic-assisted visualization, dexterity, precision and control can enable a surgeon to perform a wide array of urologic procedures through small incisions, from nephrectomies to radical prostatectomies, while achieving better clinical outcomes.

Today, Intuitive Surgical is shaping the future of urologic oncology surgery with the *da Vinci* Prostatectomy (dVP). Performed with the *da Vinci* Surgical System, dVP represents the fastest growing treatment for prostate cancer today.

Procedures

- *da Vinci* Prostatectomy
  - Enables superior visualization of tissue planes and the neurovascular bundles
  - Allows meticulous dissection of the prostate and surrounding structures
  - Enables precise suturing of the DVC and urethrovesical anastomosis
  - Optional 4th arm
  - Provides traction and counter-traction of the prostate, bladder and adjacent anatomy
  - Read more...
- *da Vinci* Pyeloplasty
- *da Vinci* Cystectomy
- *da Vinci* Nephrectomy
- *da Vinci* Partial Nephrectomy
- *da Vinci* Ureteral Reimplantation

Clinical Validation

"In my experience, robotics allows for greater surgical precision which leads to improvements in cancer control, potency and urinary function."

Mani Menon, M.D.
Director, Vattikuti Urology Institute
Henry Ford Health System

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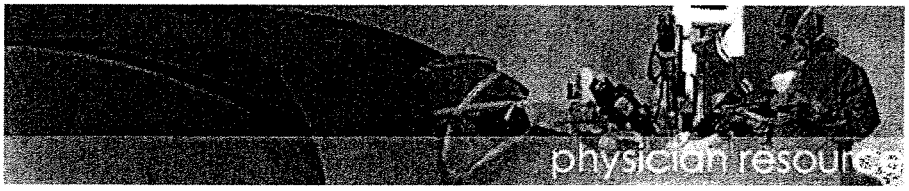


Home Physician Resources Urologic Surgery Prostatectomy

da Vinci® Prostatectomy (dVP)

The *da Vinci* Prostatectomy (dVP) performed with the *da Vinci* Surgical System is the fastest growing treatment for prostate cancer today.

Procedure Brochure

Clinical References

The *da Vinci* Prostatectomy fully leverages the *da Vinci* Surgical System's state-of-the-art technology, including high resolution 3D vision, proprietary *EndoWrist*® instrumentation, Intuitive Motion and 4th arm. Recent studies indicate that these technological advantages are helping surgeons provide prostate cancer patients with a better surgery than traditional open or conventional laparoscopic approaches can provide.

For most patients, dVP offers substantially less pain and a much shorter recovery than traditional prostatectomy. Other advantages include reduced need for blood transfusions; less scarring and less risk of infection. Moreover, studies suggest that dVP may offer improved cancer control and a lower incidence of impotence and urinary incontinence.

The rapid adoption of *da Vinci* Prostatectomy and the volume of patient inquiries has inspired an information portal dedicated to increasing awarness of *da Vinci* minimally invasive surgery, www.daVinciSurgery.com. Physicians are encouraged to refer patients to this site for further information.

Benefit Summary

- Enables superior visualization of tissue planes and the neurovascular bundles
- Allows meticulous dissection of the prostate and surrounding structures
- Enables precise suturing of the DVC and urethrovesical anastomosis
- Provides traction and counter-traction of the prostate, bladder and adjacent anatomy

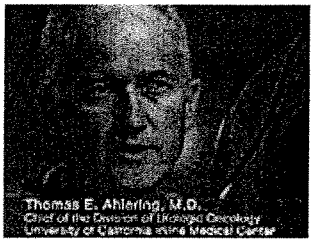
EndoWrist Instruments Optimized for *da Vinci* Prostatectomy

EndoWrist Curved Scissors

- Narrow cutting profile enables precise transection of tissues, nerves and pedicles
- Curved tip enhances visualization of cutting plane

EndoWrist Bipolar Maryland Forceps

Clinical Validation



Watch Video

"As a trained surgical oncologist, the da Vinci System has allowed me to offer my patients a better cancer operation with improved clinical outcomes."

Thomas E. Ahlering, M.D.
Associate Professor of Urology

Director, Urological Oncology
University of California Irvine Medical Center

Curved jaw and bipolar energy provide pinpoint hemostasis to tissues and pedicles

Unique jaw pattern works both as a grasper and dissector

Further Information

Instruments & Accessories Catalog

www.daVinciSurgery.com

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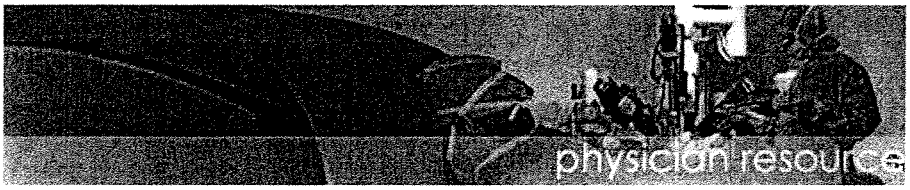

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Home Physician Resources Urologic Surgery Cystectomy

da Vinci® Radical Cystectomy (dVC)

Clinical References

da Vinci Radical Cystectomy maintains the oncologic principles of open radical cystectomy while also providing the potential benefits of a minimally invasive approach. The unsurpassed visualization, precision, dexterity and control provided by the *da Vinci* System offers the potential for:

- Favorable operative, pathologic and short-term oncologic outcomes[1]
- Meticulous dissection for standard and/or extended lymphadenectomy[1,2]
- Complete and anatomic bladder removal with minimal blood loss[3]
- Precise suturing of the DVC and creation of a watertight urethra-neobladder anastomosis[1]
- Enhanced ability to preserve the neurovascular bundles in appropriately selected patients[4]
- More rapid return of bowel function[1]

For most patients, *da Vinci* Radical Cystectomy may offer substantially less pain and a much shorter recovery than traditional procedures. Other advantages include reduced need for blood transfusions; less scarring and less risk of infection. Moreover, studies suggest that this procedure may offer more efficient identification of target anatomy, anatomical boundaries and abnormal anatomy.

The potential benefits of *da Vinci* Radical Cystectomy are driving a rapid adoption of this procedure. To learn how to provide your patients with the potential benefits of *da Vinci* Surgery, please speak with your Intuitive Surgical representative or contact us.

1. Pruthi R, Wallen E. Robotic Assisted Laparoscopic Radical Cystoprostatectomy: Operative and Pathological Outcomes. Journal of Urology. Sept 2007;178:814,816
2. Guru K, Hyung K, Piacente P, Mohler J. Robot-Assisted Radical Cystectomy and Pelvic Lymph Node Dissection: Initial Experience at Roswell Park Cancer Institute. Urology. 2007;69:473
3. Menon M, Hemal A, Tewari A, Shrivastava A, Shoma A, Abol-Ein H, Ghonelm M. Robot-Assisted Radical Cystectomy and Urinary Diversion in Female Patients: Technique with Preservation of the Uterus and Vagina. J Am Coll Surg. 2004;198:386
4. Menon M, Hemal A, Tewari A, Shrivastava A, Shoma A, El-Tabey NA, Shaaban A,

Abol-Enein H, Ghoneim MA. Nerve-sparing robot-assisted radical cystoprostatectomy and urinary diversion. BJU International. 2003;92,232

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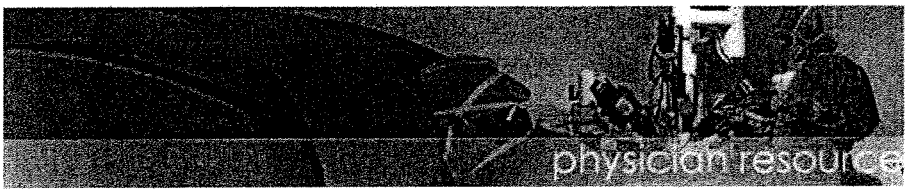

Home Physician Resources Urologic Surgery Nephrectomy

da Vinci® Nephrectomy (dVN) / Partial Nephrectomy (dVPN)

Clinical References

da Vinci Nephrectomy incorporates the best techniques of open nephrectomy and applies them to a robotic-assisted, laparoscopic approach. The unsurpassed visualization, precision, dexterity and control provided by the *da Vinci* System offer potential for:

- More efficient identification of target anatomy, anatomical boundaries and abnormal anatomy
- Meticulous dissection of the renal hilum and adjacent structures
- More accurate vessel ligation and ureteral transection
- Greater surgeon comfort and a shorter learning curve as compared to conventional laparoscopy

da Vinci Partial Nephrectomy represents a safe, effective approach to laparoscopic nephron-sparing surgery that offers the potential for improved clinical outcomes. In addition to the potential benefits of da Vinci Nephrectomy, da Vinci Partial Nephrectomy may allow:

- Enhanced[1] renal mass dissection and excision[2]
- Easier,[3] more precise[4] intracorporeal suturing for renal reconstruction, which facilitates procedure completion within acceptable warm ischemia times[5]
- Real-time intraoperative ultrasound guidance and auxiliary video input display (PACS, computer monitors, vitals and other modalities) using TilePro™ multi-image display

For most patients, *da Vinci* Nephrectomy and Partial Nephrectomy may offer substantially less pain and a much shorter recovery than traditional procedures. Other advantages include reduced need for blood transfusions, less scarring and less risk of infection. Moreover, studies suggest that both procedures may offer more efficient identification of target anatomy, anatomical boundaries and abnormal anatomy.

The potential benefits of *da Vinci* Nephrectomy and Partial Nephrectomy are driving a rapid adoption of this procedure. To learn how to provide your patients with the potential benefits of *da Vinci* Surgery, please speak with your Intuitive Surgical representative or contact us.

1. Kaul, Menon. Robotics in laparoscopic urology. Minim Invasive Ther Allied Technol. 2005;14(2):66
2. Phillips CK, Taneja SS, Stifelman MD. Robot-assisted laparoscopic partial nephrectomy: the NYU technique. J Endourol. 2005 May;19(4):441-5;444
3. Kaul S, Laungani R, Sarle R, Stricker H, Peabody J, Littleton R, Menon M. da Vinci-assisted robotic partial nephrectomy: technique and results at a mean of 15 months of follow-up.Eur Urol. 2007 Jan;51(1):186-91; discussion 191-2. Epub 2006 Jun 21;5
4. Klingler DW, Hemstreet GP, Balaji KC. Urology. 2005 Jun;65(6):1089
5. Kaul S et al. da Vinci-assisted robotic partial nephrectomy.

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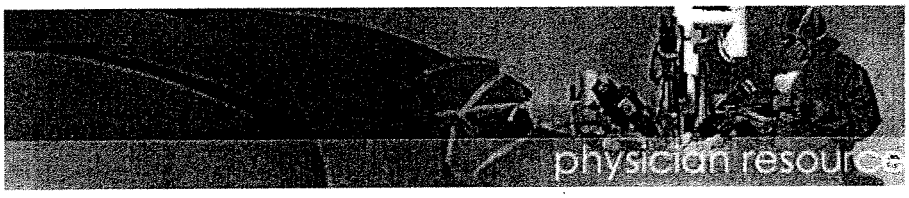

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Clinical References

The medical literature surrounding robotically-assisted minimally invasive surgery is already extensive and covers diverse disciplines. These clinical publications document the pioneering work of many researchers, surgeons and institutions. They attest to the evolution of surgical technique, the pursuit of better patient outcomes and the key role played by the *da Vinci*® Surgical System.

Abstract Indexes by Specialty

- Robotic-assisted MIS References
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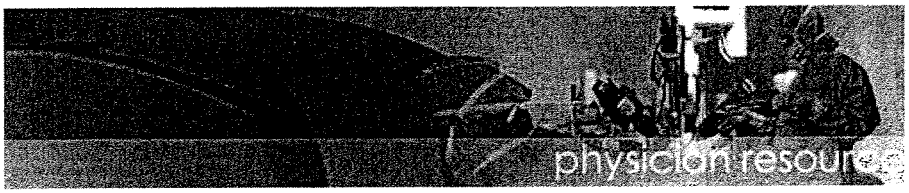

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Clinical Validation

The *da Vinci*® Surgical System has been embraced by top surgeons from a spectrum of community and academic institutions for use in a broad range of cardiac, thoracic, urologic and general surgery procedures.

Cardiac

"Adding the *da Vinci* to our vast range of advanced surgical capabilities dramatically expands our ability to perform minimally invasive techniques. It allows us to perform major cardiac procedures endoscopically through tiny ports of access, providing our patients with a less traumatic, less painful and more cosmetically pleasing alternative to open surgery."

Scott Goldman, M.D.
Chairman, Main Line Health Department of Surgery
Lankenau Hospital
Wynnewood, PA

"The *da Vinci* System makes it possible to offer a wider range of patients a minimally invasive open-heart procedure to repair the mitral valve. This will allow more patients to benefit from both shorter hospital stays and reduced recovery times."

W. Randolph Chitwood, Jr. M.D.
Professor and Chairman Department of Surgery
Chief of Cardiothoracic Surgery
East Carolina University School of Medicine

Urology

"As a trained surgical oncologist, *da Vinci* has allowed me to offer my patients a better cancer operation with improved clinical outcomes."

Thomas E. Ahlering, M.D.
Associate Professor of Urology
Director, Urological Oncology
University of California Irvine Medical Center

"In my experience, robotics allows for greater surgical precision which leads to improvements in cancer control, potency, and urinary function."

Mani Menon, M.D.
Director, Vattikuti Urology Institute
Henry Ford Health System

Clinical Validation

Watch Video

"Once you see the way patients recover, there is just no way you want to go back to larger incisions...."

Douglas A. Murphy, M.D.
Cardiac Surgeon
Saint Joseph's Hospital
Atlanta, GA

General Surgery

"I can achieve superb clinical results in technically demanding operations such as Heller myotomy and Esophagectomy with fewer complications."

Santiago Horgan, M.D.
Director of Minimally Invasive Surgery
University of California, San Diego

To determine whether the FDA has cleared da Vinci Surgical System for use in a specific procedure, please refer to the FDA Clearance page.

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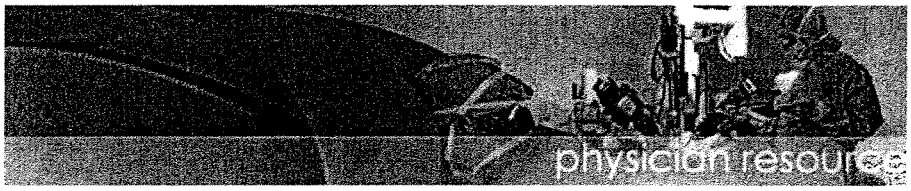

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Product Training Overview*

Training and support are an essential part of fulfilling a hospital's strategic plan of developing a successful surgical robotics program. The primary purpose of Intuitive Surgical training is to develop a surgical team's confidence and competence in the use of the *da Vinci*® Surgical System. The ultimate goal is to develop a self-sufficient surgical team capable of performing *da Vinci* procedures with minimal product support and instruction.

Intuitive Surgical's comprehensive training pathway is designed to optimize safety, efficacy and utilization of the *da Vinci* System in minimally invasive surgery. The following chart offers an overview of the three components of Intuitive's *da Vinci* Surgical System training:

System Training	Procedure Training	Clinical Support
System preparation	Case study review	Procedure map
Intra- and post-operative System management	Live procedure observation	Surgeon proctoring
Inanimate labs	Laboratory sessions	Additional skills / laboratory sessions
da Vinci System skills development	*da Vinci* surgical skills development	In-services
Laboratory sessions	Surgeon-led training	Procedure dry-run

Please see our Customer Services section for further details on our comprehensive System training programs, and speak with your Intuitive Surgical representative about your hospital's needs.

Contacts

Sales
US: 888-409-4774 ext.1
International: +41.821.20.20

Product Support
US: 800-876-1310
International: +41.21.821.20.30

Reimbursement Support
US: 1-888-868-4647 ext. 3128
International: +41.21.821.20.20

Physician Payment Request

Download and complete the physician payment request form.

** Intuitive Surgical only trains on the use of the da Vinci Surgical System. The information provided during Intuitive Surgical training is not intended to substitute for formal medical training or certification. Intuitive Surgical is in no way responsible for surgical credentialing or for training in surgical procedure or technique, nor are the training programs described a replacement for hospital credentialing requirements. All curricula described are subject to change depending on available resources, as well as on the needs of the course participants.*

Some of the training described may be provided by organizations or entities other than Intuitive, and Intuitive is not responsible for the content of these programs. Surgeon proctors are independent contractors. The listed prices are for services rendered by the independent surgeon proctors. A list of surgeon proctors can be provided upon request. Intuitive Surgical does not train on surgical procedures or techniques, nor does it take responsibility for proctoring services provided by the independent surgeon proctors. The hospital/surgeon purchases the proctoring service as part of training they have independently determined to be part of their credentialing requirement; Intuitive Surgical's role is merely to coordinate between the hospital/surgeon and the proctor. The proctors and the hospital/surgeon are always free to negotiate with each other directly.

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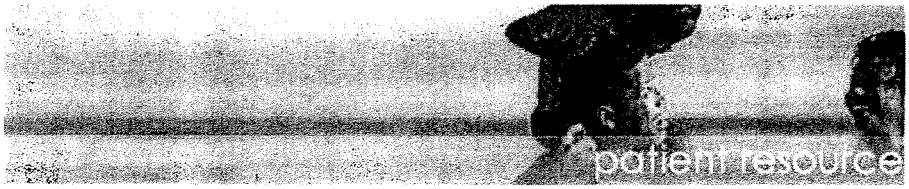

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Munroe Regional Medical Center	Ocala	Florida	34474	
West Marion Community Hospital	Ocala	Florida	34474	
Florida Hospital	Orlando	Florida	32803	
Orlando Regional Medical Center/M. D. Anderson Cancer Center, Orlando	Orlando	Florida	32806	
Winnie Palmer Hospital for Women	Orlando	Florida	32806	
Florida Hospital Celebration Health	Celebration	Florida	34747	
Shands at the University of Florida	Gainesville	Florida	32608	
Halifax Health Medical Center	Daytona Beach	Florida	32114	
Lakeland Regional Medical Center	Lakeland	Florida	33805	
North Florida Regional Medical Center	Gainesville	Florida	32605	
H. Lee Moffitt Cancer Center & Research Institute	Tampa	Florida	33612	
Community Hospital	New Port Richey	Florida	34652	
Brandon Regional Hospital	Brandon	Florida	33511	
Town & Country Hospital	Tampa	Florida	33615	
St. Joseph's Hospital	Tampa	Florida	33607	
St. Joseph's Hospital - Tampa	Tampa	Florida	33607	

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St. Anthony's Hospital	St. Petersburg	Florida	33705-1388
St. Luke's Hospital	Jacksonville	Florida	32216
St. Luke's Hospital - Jacksonville	Jacksonville	Florida	32216
All Children's Hospital	St. Petersburg	Florida	33731
Baptist Medical Center	Jacksonville	Florida	32207

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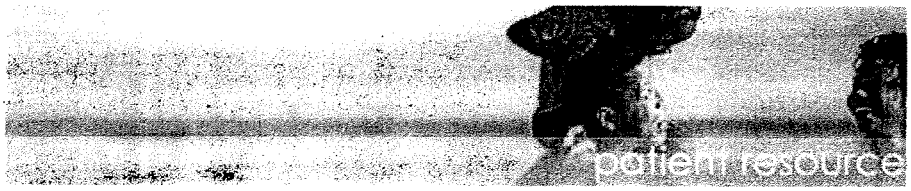

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Shands Jacksonville	Jacksonville	Florida	32209	
Manatee Memorial Hospital	Bradenton	Florida	34208	
Sarasota Memorial Hospital	Sarasota	Florida	34239-3555	
Lawnwood Regional Medical Center	Fort Pierce	Florida	34950	
Capital Regional Medical Center	Tallahassee	Florida	32308	
Tallahassee Memorial Hospital	Tallahassee	Florida	32308	
Physicians Regional Medical Center (Naples Campus)	Naples	Florida	34119	
Naples Community Hospital, Downtown Campus	Naples	Florida	34102-5791	
JFK Medical Center	Atlantis	Florida	33462	
JFK Medical Center	Atlantis	Florida	33462	
West Boca Medical Center	Boca Raton	Florida	33428	
Holy Cross Hospital	Fort Lauderdale	Florida	33308	
Imperial Point Medical Center	Fort Lauderdale	Florida	33308	
Westside Regional Medical Center	Plantation	Florida	33324	
Cleveland Clinic of Florida	Weston	Florida	33331	
Memorial Regional Hospital	Hollywood	Florida	33021	

Aventura Hospital and Medical Center	Aventura	Florida	33180
Bay Medical Center	Panama City	Florida	32401
Cedars Medical Center	Miami	Florida	33136
Jackson Memorial Hospital	Miami	Florida	33136
Mount Sinai Medical Center	Miami Beach	Florida	33140
South Miami Hospital	South Miami	Florida	33143
Baptist Hospital of Miami	Miami	Florida	33176
Jackson South Community Hospital	Miami	Florida	33157

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Baptist Hospital	Pensacola	Florida	32501-7500	

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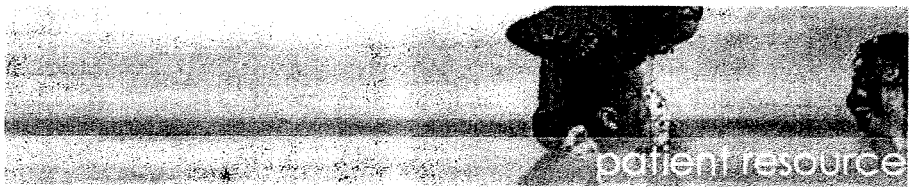

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Gynecologic Conditions

Physicians are usually successful at treating a variety of gynecologic conditions – particularly those affecting the uterus – with surgery. In spite of growing demand for minimally invasive procedures, the majority of these operations are still performed using large, abdominal incisions. These surgeries typically result in significant blood loss, and may mean several days in the hospital followed by weeks of recovery time.

Today, a less invasive surgical treatment option is available. If your doctor recommends surgery for your condition, you may be a candidate for one of three new, minimally invasive procedures – *da Vinci*® Hysterectomy, da *Vinci* Myomectomy and *da Vinci* Sacrocolpopexy.

These procedures use the state-of-the-art *da Vinci* Surgical System, designed to help your surgeon perform a more precise, less invasive procedure. For most patients, minimally invasive procedures performed with the *da Vinci* Surgical System can offer numerous potential benefits over traditional surgery, including:

- Shorter hospital stay
- Less pain and scarring
- Less risk of infection
- Less blood loss and fewer transfusions
- Faster recovery
- Quicker return to normal activities.

In addition, for women diagnosed with uterine fibroids, *da Vinci* Myomectomy represents a minimally invasive surgical treatment designed to preserve the uterus.

Read more...

- da Vinci Hysterectomy
- da Vinci Myomectomy
- da Vinci Sacrocolpopexy

As with any surgery, these benefits cannot be guaranteed, as surgery is patient- and procedure-specific. To learn more about *da Vinci* Gynecologic Surgery, talk

Patient Satisfaction

Watch Video

"This isn't your ... grandma's hysterectomy."

Procedure: Hysterectomy
Patient: Karena O'Connell
Surgeon: Dr. Mark Zepeda
Institution: St. Joseph Hospital, Orange, CA

with your doctor and visit www.daVinciSurgery.com. To find a gynecologic surgeon who performs surgery using the *da Vinci* Surgical System, use our physician locator.

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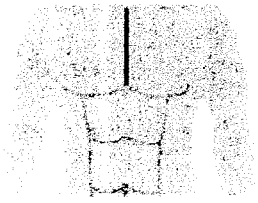
Cardiac Applications



Open-chest surgical incision

Robotic-assisted minimally invasive cardiac procedures avoid the drawbacks of traditional heart surgery, including blood loss, pain and scarring that typically result from cutting through the breastbone and opening the ribs.

The da Vinci® System offers breakthrough capabilities that enable surgeons to operate through smaller incisions made between the ribs.

As a result, the da Vinci Surgical System is changing the practice of cardiac surgery as it's known today. Data suggests that recovery time, pain and trauma are reduced significantly through this less invasive approach.

da Vinci surgical incisions

For most patients, minimally invasive cardiac procedures performed with the da Vinci Surgical System can offer numerous potential benefits over open-chest surgery, including:

- Shorter hospital stay
- Less pain and scarring
- Less risk of infection
- Less blood loss and fewer transfusions
- Faster recovery
- Quicker return to normal activities.

Conditions

Select the following links to learn more about Intuitive solutions to specific cardiac conditions:

- Atrial Septal Defect
- Mitral Valve Disease
- Coronary Artery Disease

Clinical Validation

Watch Video

"As cardiac surgeons, we need to listen to what the patients are demanding"

Douglas A. Murphy, M.D.
Cardiac Surgeon
Saint Joseph's Hospital
Piedmont Hospital
Northeast Georgia Medical Center

Atlanta, Georgia

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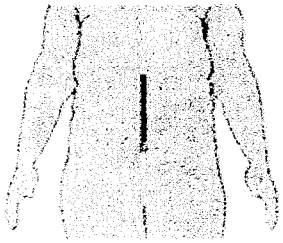
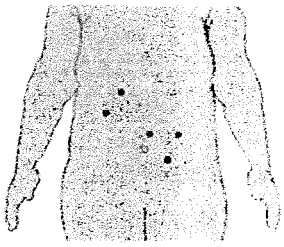


Open gastric bypass incision

The *da Vinci*® Surgical System allows surgeons to perform complex procedures through 1-2 cm incisions, which means that minimally invasive surgical therapies are now available to millions of patients.

For most patients, minimally invasive procedures performed with the *da Vinci* Surgical System can offer numerous potential benefits over open-abdominal surgery, including:

- Shorter hospital stay
- Less pain and scarring
- Less risk of wound infections
- Less blood loss and fewer transfusions
- Faster recovery
- Quicker return to normal activities.



da Vinci surgical incisions

The *da Vinci* Surgical System can also be used across a broad range of general surgical procedures, including bariatric, esophageal and colorectal surgery.

Conditions

Select the following links to learn more about Intuitive Surgical solutions to specific conditions:

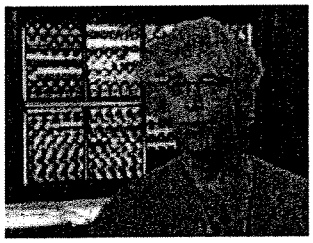
- Reflux disease
- Obesity

Clinical Validation

"I can achieve superb clinical results in technically demanding operations such as Heller myotomy and Esophagectomy with fewer complications."

Santiago Horgan, M.D.
Director of Minimally Invasive Surgery
University of California, San Diego

"Robotic assisted surgery is safe and effective, and is a new reality for American surgery."



Watch Video

Mark A. Talamini, M.D. et al
"A Prospective Analysis of 211 Robotic Assisted Surgical Procedures"
Surgical Endoscopy

Mark A. Talamini, M.D. is Professor of Surgery & Chairman, Department of Surgery, University of California, San Diego

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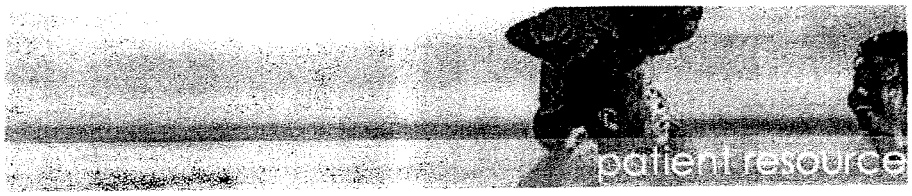

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Thoracic Applications

Clinical References

Robotic surgical technologies have already started to change the way surgeons operate inside the chest – in particular for procedures performed on the lungs and esophagus.

With the use of the *da Vinci*® System, thymectomies and other potentially traumatic procedures can be performed through 1-2 cm incisions, without spreading or cutting the breastbone or ribs, thereby minimizing blood loss, pain and scarring.

Studies suggest that this less invasive approach can greatly reduce recovery time, pain and trauma associated with thoracic surgery.

For most patients, minimally invasive thoracic procedures performed with the *da Vinci* Surgical System can offer numerous potential benefits over open-chest surgery, including:

- Shorter hospital stay
- Less pain and scarring
- Less risk of infection
- Less blood loss and fewer transfusions
- Faster recovery
- Quicker return to normal activities.

Thoracic Procedures

- *da Vinci* Thymectomy Read more ...
- *da Vinci* Lobectomy
- *da Vinci* Esophagectomy
- *da Vinci* Mediastinal Tumor Resection

Clinical Validation

"Robotic technology and the introduction of the 4th arm enhance the performance of thoracic surgical procedures. It converses a one handed surgeon to a two handed surgeon plus assistant, which leads to a decrease in procedure time, earlier discharge, less pain and quicker return to daily activities of my patients."

K. Adam Lee, MD
Cleveland Clinic, Florida

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Urologic Conditions

The *da Vinci*® System provides breakthrough capabilities that allow surgeons to perform complex procedures with greater precision through tiny incisions. Robotic-assisted visualization, dexterity, precision and control can enable your surgeon to perform a wide array of urologic procedures through 1-2 cm incisions, from nephrectomies to radical prostatectomies, while achieving equal or better clinical outcomes.

Urologic Applications

- *da Vinci* Prostatectomy
- *da Vinci* Pyelopolasty
- *da Vinci* Cystectomy
- *da Vinci* Nephrectomy
- *da Vinci* Ureteral Reimplantation

Today, Intuitive Surgical is shaping the future of urologic oncology surgery with the *da Vinci* Prostatectomy (dVP). Performed with the *da Vinci* Surgical System, dVP represents the fastest growing treatment for prostate cancer today.

Advantages of *da Vinci* Prostatectomy

- Shorter hospital stay
- Less pain
- Less risk of infection
- Less blood loss and transfusions
- Less scarring
- Faster recovery
- Quicker return to normal activities
- Lower incidence of impotence and urinary incontinence
- Potential for better cancer control

Read more...

Patient Perspective

Watch Video

da Vinci Prostatectomy patient Dennis Murray on his experience: "I have not taken a Tylenol throughout the entire process..."

Dennis Murray
Superintendent of Schools
Perris, CA

Treated for prostate cancer with *da Vinci* Prostatectomy

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Pediatrics

Minimally invasive surgery is becoming increasingly significant in pediatric medicine. The use of minimally invasive visualization tools, combined with computer enhanced robotics technology, provides the surgeon superior views and very precise access to the patients' internal anatomy. The results of this application of the technology to smaller patients are demonstrated in improvement in patient outcomes – less pain, trauma and stress both physically and emotionally for both children and parents.

Children's hospitals throughout the world are successfully integrating robotics into their surgical practice. Today, surgical robotic systems have helped surgeons perform complex pediatric general surgery and cardiothoracic operations.

Procedures

Pediatric Nissen Fundoplication

- Superb visualization and access to tissue planes
- Easier creation of a retroesophageal window
- More precise suture placement

Pediatric Cardiothoracic

- Superb visualization and access to anatomy
- Unparalleled dexterity for complex dissection and suturing
- Broad application for thoracic and cardiotomy procedures

Surgeon Perspective

"The introduction of practical surgical robotic devices has opened a new perspective on minimal access surgery in all surgical endeavors. Used in the context of laparoscopic surgical procedures, the surgical robot appears to offer the potential for efficient delicate, controlled surgical manipulation in small children."

Craig A. Peters, M.D., FACS, FAAP
Associate Professor of Surgery
Harvard Medical School
Children's Hospital Boston

Surgeon Perspective

"In general pediatric surgery, the da Vinci® has provided a new degree of technical precision with respect to procedures performed laparoscopically or thoracoscopically. With a continued consultative approach to technical advancement, miniaturization of instruments, and with experience and study of pediatric specific applications, this technology will continue to enhance pediatric minimal access surgery."

Michael S. Irish, M.D.
Clinical Instructor of Surgery
University of Iowa, Raymond Blank
Children's Hospital

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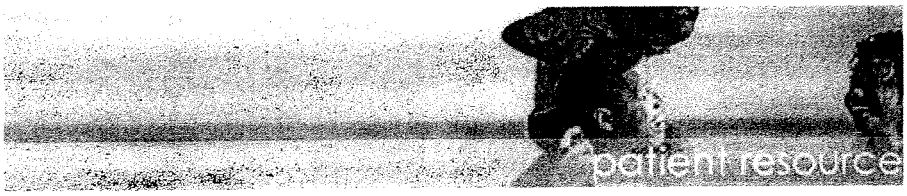

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Patient Resources

In order to better inform prospective patients and their families, this section offers resources on minimally invasive surgery (MIS), with a focus on selected procedures performed using the *da Vinci*® Surgical System.

Cardiac
General
Thoracic
Urologic
Gynecologic

Recent advancements in minimally invasive surgical technologies mean that today's patients have a broader range of alternatives to conventional open surgery than patients did just 10 years ago. These advancements include the *da Vinci* Surgical System, which is providing patients with new, minimally invasive surgical procedures that offer significant advantages over traditional "open" surgeries. These robotic-assisted minimally invasive procedures – available to treat conditions as diverse as obesity, heart disease and prostate cancer – can benefit patients with less pain, discomfort, blood loss and a quicker return to normal activities.

The *da Vinci* Surgical System

The *da Vinci* Surgical System from Intuitive Surgical, Inc. enhances surgical capabilities, providing superior visualization, enhanced dexterity, greater precision and ergonomic comfort. As a result of these capabilities, surgeons can now perform even complex surgery using 1-2 cm incisions. This enables healthcare providers to offer a minimally invasive treatment option to the broadest possible range of patients.

da Vinci Prostatectomy: A Revolution in Prostate Cancer Treatment

The *da Vinci* Surgical System has proven ideal for minimally invasive radical prostatectomy – the removal of the prostate to treat prostate cancer. In response to the success of the *da Vinci* Prostatectomy procedure and increased patient demand, Intuitive Surgical has launched a new web site, www.daVinciProstatectomy.com, designed especially for prostate cancer patients and their families.

Learn More

To learn more about minimally invasive surgery performed with the *da Vinci* System, talk with your doctor. To find a doctor who performs surgery using the *da Vinci* Surgical System, visit our new, patient education website -

Learn more at www.daVinciSurgery.com

Clinical Validation

Watch Video
"There's a three-dimensional camera that goes inside the body, so the surgeon is immersed inside the patient. Your hand motions translate into instrument motions. There's less scaring, less blood loss, shorter hospital stay and better outcomes."

Dr. Michael Stephanides
Director of Robotic Surgery
Centennial Medical Center Robotics Program
Nashville, TN

Further Information

Clinical References www.davincisurgery.com.

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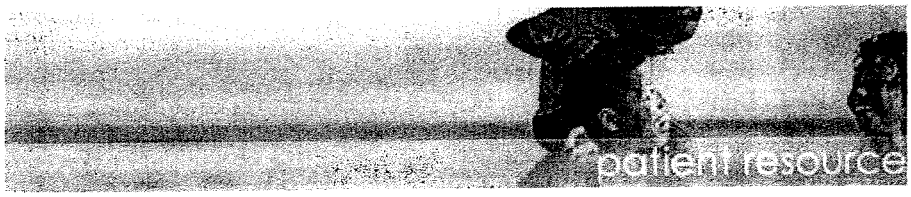

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Frequently Asked Questions

Q. Why is the company called Intuitive Surgical®?
A. The Company is called "Intuitive" Surgical because its technologies are designed to allow surgeons to operate with the same skills learned in open surgery, yet with increased precision. The technology maintains a corresponding eye-hand-instrument alignment and intuitive instrument control: As the surgeon twists the controls clockwise, the patient-side cart instruments twist clockwise as well. This "intuitive motion" is the antithesis of laparoscopic surgery, where the surgeon moves the instrument handles in the opposite direction as the instrument tips.

Q. Why is the product called the *da Vinci*® Surgical System?
A. The product is called "da Vinci" in part because Leonardo da Vinci invented the first robot. He also used unparalleled anatomical accuracy and three-dimensional details to bring his masterpieces to life. The *da Vinci* Surgical System similarly provides physicians with such enhanced detail and precision that the System can simulate an open surgical environment while allowing operation through tiny incisions.

Q. Is a surgeon using the *da Vinci* Surgical System operating in "virtual reality"?
A. Although seated at a console a few feet away from the patient, the surgeon views an actual image of the surgical field while operating in real-time, through tiny incisions, using electromechanically enhanced instruments. At no time does the surgeon see a virtual image or program/command the system to perform any maneuver on its own/outside of the surgeon's direct, real-time control.

Q. Is this telesurgery? Can you operate over long distances?
A. The *da Vinci* Surgical System can theoretically be used to operate over long distances. This capability, however, is not the primary focus of the company and thus is not available with the current *da Vinci* Surgical System.

Q. Is Intuitive Surgical developing the da Vinci System for telesurgical applications?
Intuitive Surgical's goal is to extend the benefits of minimally invasive surgery to the broadest possible base of patients. Our strategy to achieve this includes the development of products that allow any physician today to rapidly expand his/her surgical technique and capabilities. Our robotic surgical platforms currently enable surgeons to perform complex procedures using a minimally invasive approach.

In the interest of expediting surgeon training and expanding training programs, we are exploring telesurgery as a way to facilitate surgeon-to-surgeon proctoring and coaching. We see telesurgery as a means to allow surgeons to get up to speed in robotic-assisted surgery under the guidance of leading specialists – with less disruption to their clinical schedules and less impact on their patients.

Q: Where is the *da Vinci* Surgical System being used now?

A: Currently, The *da Vinci* Surgical System is currently being used worldwide, in major centers in the United States, Austria, Belgium, Canada, Denmark, France, Germany, Italy, India, Japan, the Netherlands, Romania, Saudi Arabia, Singapore, Sweden, Switzerland, United Kingdom, Australia and Turkey.

Q. While using the *da Vinci* Surgical System, can the surgeon feel anything inside the patient's chest or abdomen?

A. The system relays force feedback sensations from the operative field back to the surgeon throughout the procedure. Force feedback provides a substitute for tactile sensation.

Q. Is Intuitive's technology patented?

A. Intuitive has an extensive patent portfolio of internally developed technology, as well as a variety of patents acquired or exclusively licensed from leaders in computer-enhanced robotics.

Q. Has the *da Vinci* Surgical System been cleared by the FDA?

A. The U.S. Food and Drug Administration (FDA) has cleared the *da Vinci* Surgical System for a wide range of procedures. Please see the FDA Clearance page for specific clearances and representative uses.

Q. What is Minimally Invasive Surgery (MIS)?

A. MIS is surgery typically performed through small incisions, or operating ports, rather than large incisions, resulting in shorter recovery times, fewer complications, reduced hospitalization costs and reduced trauma to the patient. MIS has become standard-of-care for particular surgical procedures, it has not been widely adopted for more complex or delicate procedures – for example, prostatectomy and mitral valve repair.

Intuitive Surgical believes that surgeons have been slow to adopt MIS for complex procedures because they generally find that fine-tissue manipulation – such as dissecting and suturing – is more difficult and are less precise than in open surgery. Intuitive Surgical's technology, however, enables the use of MIS technique for complex procedures.

Q. Will the *da Vinci* Surgical System make the surgeon unnecessary?

A. On the contrary, the *da Vinci* System enables surgeons to be more precise, advancing their technique and enhancing their capability in performing complex minimally invasive surgery. The System replicates the surgeon's movements in real time. It cannot be programmed, nor can it make decisions on its own to move in any way or perform any type of surgical maneuver without the surgeon's input.

Q. What are the benefits of using the *da Vinci* Surgical System over more

traditional methods of surgery?

A. Some of the major benefits experienced by surgeons using the *da Vinci* Surgical System over traditional approaches have been greater surgical precision, increased range of motion, improved dexterity, enhanced visualization and improved access. Benefits experienced by patients may include a shorter hospital stay, less pain, less risk of infection, less blood loss, fewer transfusions, less scarring, faster recovery and a quicker return to normal daily activities. None of these benefits can be guaranteed, as surgery can be both patient- and procedure-specific.

Q. Is this "robotic surgery?"

A. Devices for "robotic surgery" are designed to perform entirely autonomous movements after being programmed by a surgeon. The *da Vinci* Surgical System is a computer-enhanced system that interposes a computer between the surgeon's hands and the tips of micro-instruments. The system replicates the surgeon's movements in real time. It cannot be programmed, nor can it make decisions on its own to move in any way or perform any type of surgical maneuver. Sometimes, however, the general term "robotic surgery" is used to refer to our technology.

Q. Why can't surgeons perform complex procedures such as cardiac surgery through 1-2 cm ports today?

A. Cardiac surgery requires an excellent view of the operative field and the ability to maneuver instruments within the chest cavity with precision and control. Surgeons historically have used the "open sternotomy" approach to heart surgery, which means splitting the breastbone, pulling back the ribs and typically results in a foot-long incision. This provides visibility and allows room for the surgeon to get his hands and instruments very close to the operative site. More recently, smaller incisions have been used to perform a variety of cardiac procedures. However, many cardiac surgeons feel the reduced access may limit visualization and may impede access to the operative field.

Q: Why isn't Intuitive Surgical getting involved in the Defense Advanced Research Projects Agency (DARPA) Defense Sciences project to develop robotic technology for use on the battlefield?

A: Intuitive Surgical's *da Vinci* Surgical System could theoretically be used to operate over long distances. However, optimizing the *da Vinci* System for remote or telesurgery applications is not the primary focus of the company's product design and development efforts, and this capability is not available with the current *da Vinci* Surgical System.

While the company is supportive of the forward-looking research that SRI is engaged in, Intuitive Surgical is optimizing its products for applications in minimally invasive surgery today. We are committed to the development of products that can extend the benefits of minimally invasive surgery to the broadest possible range of patients.

Q: What procedures have been performed using the da Vinci Surgical System? What additional procedures are possible?

A: The da Vinci System is a robotic surgical platform designed to enable complex procedures of all types to be performed through 1-2 cm incisions or operating

"ports." To date, tens of thousands of procedures including general, urologic, gynecologic, thoracoscopic, and thoracoscopically-assisted cardiotomy procedures have been performed using the da Vinci Surgical System.

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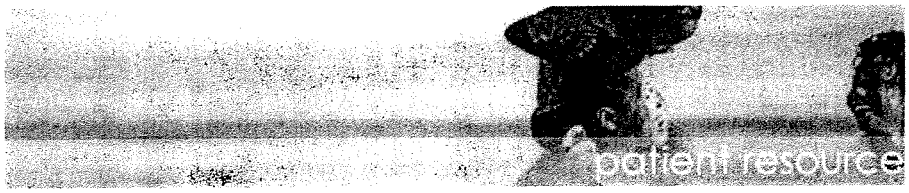

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Adrenalectomy

An adrenalectomy is the surgical removal of one or both adrenal glands. The procedure can be performed using an open incision or laparoscopic technique. The adrenal glands are endocrine glands located above each kidney. Malignant or benign tumors in the adrenal gland are the most common conditions requiring adrenalectomy. Some adrenal gland tumors excrete hormones. If left untreated, these tumors can cause severe hormonal imbalances.

Anastomosis

A connection between two tubular anatomic structures (e.g., coronary vessels and intestinal structures).

Atrial Septal Defect

The septum is a wall that separates the heart's left and right sides. Septal defects are sometimes called a "hole" in the heart. A defect between the heart's two upper chambers (the atria) is called an atrial septal defect (ASD).

Bariatrics

Pertaining to weight (from the same root as in barometer -- measuring the "weight" of air), the aim of bariatric surgery is to reduce weight, including "morbid" or "clinically severe" obesity, in patients.

Cholecystectomy

Surgical removal of the gall bladder. Traditionally, the surgery is carried out through an incision in the right side of the upper abdomen. More recently the surgery has been carried out laparoscopically or robotically, employing 3 or 4 small incisions.

Colectomy

Surgical removal of part or all of the colon, performed to treat various conditions, including cancer, diverticulitis (inflammation of a herniation in the intestinal tract), inflammatory bowel disease, volvulus (abnormal twisting of the intestine causing obstruction) and fistulae (an abnormal duct or passage in the intestinal tract).

Coronary Bypass

Also known as revascularization or coronary artery bypass grafting (CABG),

coronary bypass is a surgical procedure that restores blood flow to the heart beyond a blockage in a coronary artery. Coronary bypass reroutes the blood around the blockage, creating an alternative pathway for blood to reach the heart muscle.

Degrees of freedom

Refers to axes of movement or the flexibility to achieve given positions and orientations of an instrument tip. Six degrees of freedom are required to reach, position and orient an instrument at any point in space. The seventh degree of freedom is the function of the operation itself (e.g., grasping or cutting).

Robots are typically capable of movement along a number of axes; these movements can be rotational or translational (the motion of a body in which every point of the body moves parallel to and the same distance as every other point of the body).

The number of axes of movement (degrees of freedom), their arrangement and their sequence of operation permits movement of the robot to any point within its envelope. Robots have three arm movements (up-down, in-out, side-to-side). In addition, they can have as many as three wrist movements on the end of the robot's arm, similar to a human wrist: yaw (side to side, left and right), pitch (up and down), and roll or rotational (circular rotation/twisting).

Endoscope

A small tubular lens device, usually attached to a video monitor, and video camera, and used to visualize the inside of the body.

Endoscopy

The use of a telescopic viewing device inserted into a body cavity via a small incision together with specialized surgical tools, enabling the surgeon to see the inside of the body cavity on a television screen and identify and repair the defect. Endoscopy is often done to diagnose gastric ulcers, locate the source of upper gastrointestinal bleeding, and examine the lower esophagus, stomach and lower colon.

EndoWrist® Technology

Tiny, computer-enhanced mechanical wrists near the end of the instrument tip that provide all the flexibility of the human wrist and forearm at the operative site, through 1 cm ports.

Gastric Bypass

A weight-loss procedure performed by bariatric or general surgeons that utilizes stapling, suturing and other surgical techniques to create a very small stomach pouch, severely restricting the amount of food that can be consumed at one time. The rest of the stomach is bypassed and therefore no longer receives food.

Haptics

Haptics (pronounced HAP-tiks) is the science of applying touch (tactile) sensation and control to interaction with computer applications. (The word derives from the Greek haptein, meaning "to fasten.") By using special input/output devices (such

as joysticks or data gloves), users can receive feedback from computer applications in the form of felt sensations in the hand or other parts of the body. In combination with a visual display, haptics technology can be used to train people for tasks requiring hand-eye coordination, including surgery.

Heller Myotomy

Surgical treatment of esophageal achalasia (failure of the esophagus to relax) by longitudinal division of the lowest part of the esophageal muscle down to the submucosal layer; some muscle fibers of the cardia may also be divided.

Laparoscope

A type of endoscope consisting of an illuminated tube with an optical system.

Laparoscopy

A type of surgery using a laparoscope, which is inserted into one or more small incisions, to examine the abdominal cavity. This technique uses small cylindrical tubes called trocars.

Medical robotics

Remote activated or user-manipulated motion control, imaging and communication devices, operated via computer hardware and software to enable physicians to conduct an increasing array of surgical procedures in a minimally invasive manner.

Minimally Invasive Surgery

Minimally Invasive Surgery (also known as MIS, minimal access, keyhole surgery, laparoscopic, or endoscopic surgery) is a major advance in bringing to patients the excellent results of traditional surgical procedures, while eliminating the most physically and emotionally traumatic elements: the pain and lengthy recovery from "open" surgery.

Minimally invasive surgery means having a minimum of interference with the patient's normal physiological function. Advances in laparoscopic surgery allow surgeons access to complex patient anatomy through very small incisions instead of the large incisions associated with conventional "open" surgery. Patients experience less pain and shorter recovery times.

Mitral Valve Repair

A heart procedure to treat stenosis (narrowing) or regurgitation (leakage) of the mitral valve. The mitral valve is the "inflow valve" for the left side of the heart.

Motion scaling

A software-based feature of the da Vinci® Surgical System that increases surgical precision and fine motor control by: 1) scaling hand movements so that large motions by the surgeon are reduced to micro-movements at the operative site, and 2) eliminating natural hand tremors.

Nissen Fundoplication

Laparoscopic procedure developed for management of acid reflux or chronic heartburn, also known as Gastroesophageal Reflux Disease (GERD). The procedure consists of wrapping the stomach around the lower 4-6cm of the esophagus and

suturing the stomach in place.

Open Surgery

Cutting the skin and tissues during surgery to expose a full view of the structures and organs involved in the procedure. Surgeons work under direct visualization with full incision.

Port

A tiny (1-2 cm) incision, into which a cannula (hollow, rigid tube) is inserted to act as a conduit for an endoscope or minimally invasive surgical instruments, including EndoWrist® instruments.

Prostatectomy or radical prostatectomy

Removal of the prostate to treat prostate cancer.

Reliability-Controlled™ Reusable Instruments

Intuitive Surgical® instruments that are used multiple times before being discarded, ensuring consistent high performance. They are completely sterilizable via standard methods.

Robot

An automatic device that performs functions normally ascribed to humans. More technically, a reprogrammable, multifunctional manipulator designed to move material, parts, tools, or specialized devices through various programmed motions for the performance of a variety of tasks. The word 'robot' was coined by the Czech playwright Karel Capek, from the Czech word for forced labor or serf.

Robotics

A branch of engineering that involves the conception, design, manufacture, and operation of robots. This field overlaps with electronics, computer science, artificial intelligence, mechatronics (the synergistic combination of precision mechanical engineering, electronic control and systems thinking in the design of products and manufacturing processes); nanotechnology (the science and technology of building electronic circuits and devices from single atoms and molecules); and bioengineering (the application of engineering principles to the fields of biology and medicine, as in the development of aids or replacements for defective or missing body organs).

Robotic components

For a machine to qualify as a robot, it usually needs these 5 parts:

- A controller – the computer
- Arm(s) – the part of the robot that positions the end-effector and sensors
- The drive – the "engine" that moves the links – the sections between the joints into their desired position
- End effector(s) – the "hand" connected to the robot's arm
- Sensor(s) – technology that sends information, in the form of electronic signals back to the controller

Sacrocolpopexy

Sacrocolpopexy is a procedure designed to surgically correct vaginal vault prolapse, where surgical mesh is used to hold the vagina in the correct anatomical position. This procedure can also be performed following a hysterectomy, in order to treat uterine prolapse and to provide long-term support for the vagina.

Splenectomy

An operation to remove the spleen.

Telesurgery

A term for robotic surgical technologies that are programmed with commands and then move autonomously, without human touch. The da Vinci® Surgical System, by contrast, is based on servo-assisted technology that consistently updates critical performance inputs approximately 1500 times/second, simultaneously transferring the surgeon's exact hand and finger movements made at the console to precise microsurgical movements of the instruments in the operative field.

Thymectomy

Surgical removal of the thymus gland. The thymus has been demonstrated to play a role in the development of autoimmune myasthenia gravis (MG). It is removed in an effort to improve the weakness caused by MG, and to remove a thymoma (a usually benign tumor of the thymus), if present.

Video-Assisted Surgery

Any surgical procedure utilizing a visualization device, such as an endoscope.

Visual Immersion

Refers to the sense of being inside the body, or present at the operative site, which the surgeon typically experiences while using the da Vinci System. Seated at the console, the surgeon is able to look into the video display and see a high-resolution, 3-D image of the surgical field, with hands and instruments in a natural line of sight – brighter and clearer than it would even appear in open surgery. 3-D visualization that allows eye-hand instrument alignment and coordination promotes maximum immersion at the surgical site, eliminating the spatial disorientation and disconnected hand/eye coordination inherent in traditional laparoscopic technology.

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Our Commitment to Service

At Intuitive Surgical, our priority is to achieve optimal customer satisfaction through superior product design, reliability and quality. With equal commitment, the company works to be recognized for the responsiveness and integrity of its customer service. Throughout our organization, we emphasize personal responsibility for creating value, which ensures that customer needs are everyone's focus.

To this end, our sales and technical support teams are available on-site and in-person to meet surgeon, institution and patient needs worldwide. Customer education and training, a key component of customer service, is available at training centers worldwide. These centers feature System, clinical and procedure training to serve surgeons and their teams.*

Finally, our Procedure Marketing and Marketing Communications teams can provide the support needed to build awareness of your robotic-assisted MIS initiatives and drive procedure volume. We are available to assist with strategic planning, marketing collateral and templates designed to help you develop custom Marketing materials.

Our Commitment to Our Customers

Intuitive Surgical's goal is to create exceptional value for our customers. We create value by working harder to understand our customers' needs; by developing differentiated products that exceed expectations and by building efficiency into everything we do. We believe that our success is continually built on the everyday actions of individual employees, and that each of us has the power to create customer value – every day.

** Intuitive Surgical only trains on the use of the da Vinci Surgical System. The information provided during Intuitive Surgical training is not intended to substitute for formal medical training or certification. Intuitive Surgical is in no way responsible for surgical credentialing or for training in surgical procedure or technique, nor are the training programs described a replacement for hospital credentialing requirements. All curricula described are subject to change depending*

Intuitive Surgical, Inc.

Intuitive Surgical is the global technology leader in robotic-assisted minimally invasive surgery. We are committed to the development of products designed to extend the benefits of minimally invasive surgery to the broadest possible range of patients.

Intuitive Surgical is taking surgery beyond the limits of the human hand.™

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on available resources, as well as on the needs of the course participants.

Some of the training described may be provided by organizations or entities other than Intuitive, and Intuitive is not responsible for the content of these programs. Surgeon proctors are independent contractors. The listed prices are for services rendered by the independent surgeon proctors. A list of surgeon proctors can be provided upon request. Intuitive Surgical does not train on surgical procedures or techniques, nor does it take responsibility for proctoring services provided by the independent surgeon proctors. The hospital/surgeon purchases the proctoring service as part of training they have independently determined to be part of their credentialing requirement; Intuitive Surgical's role is merely to coordinate between the hospital/surgeon and the proctor. The proctors and the hospital/surgeon are always free to negotiate with each other directly.

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EXHIBIT 22

da Vinci Surgery™

da Vinci...Changing the Experience of Surgery

Welcome to *da Vinci* Surgery.com, a website designed to inform patients and their loved ones about what may be the most effective, least invasive surgical treatment option available today. Here, you can become better informed about different approaches to surgery. This knowledge will be valuable as you discuss treatment options with your doctor.

The *da Vinci* Surgical System provides surgeons with an alternative to both traditional open surgery and conventional laparoscopy, putting a surgeon's hands at the controls of a state-of-the-art robotic platform. The *da Vinci* System enables surgeons to perform even the most complex and delicate procedures through very small incisions with unmatched precision.

For the patient, benefits may include:

- Significantly less pain
- Less blood loss
- Less scarring
- Shorter recovery time
- A faster return to normal daily activities
- And in many cases, better clinical outcomes

If you or a loved one has been diagnosed with a condition that may require surgery, you owe it to yourself to learn about all of your medical options, including the most effective, least invasive surgical treatments available. Hear from patients who have benefited from the *da Vinci* approach to cardiothoracic, gynecologic and urologic surgery. And hear from surgeons and hospital administrators who are changing the experience of surgery with the *da Vinci* Surgical System.

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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da Vinci Surgery

da Vinci Procedures
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da Vinci Procedures

When facing surgery, regardless of the condition, your primary concern is determining which surgeon and hospital will give you the best chance for the best possible outcome. Secondly, you want a surgical experience that will be the least disruptive to your everyday life.

Enter *da Vinci*.

The *da Vinci* Surgical System combines computer and robotic technologies to create a new category of surgical treatment, robotic-assisted laparoscopic, thoracoscopic or endoscopic surgery. By providing surgeons with enhanced capabilities, the *da Vinci* Surgical System makes it possible to treat a broader range of conditions using a minimally invasive approach. This means that with *da Vinci*, you can have major surgery with only a few tiny incisions. In addition, your surgeon can operate with better visualization, precision, dexterity and control than possible using traditional surgical approaches.

Clinical studies suggest that the extended capabilities provided by the *da Vinci* System may help surgeons provide better clinical outcomes than conventional open and minimally invasive surgery allow – for example, better cancer control and a lower incidence of impotence and incontinence with *da Vinci* Prostatectomy.[1]

To date, *da Vinci* has been used in everything from minimally invasive heart surgery to minimally invasive cancer surgery, to treat conditions as diverse as prostate cancer, endometrial cancer, morbid obesity and mitral valve regurgitation.

In short, the *da Vinci* Surgical System combines robotics and surgical technology as never before, enabling your surgeon to provide the most effective and least invasive treatment option available for a wide range of complex conditions.

Learn More
Learn more about the patient benefits of robotic-assisted, minimally invasive surgery with *da Vinci* as applied to urologic, gynecologic, cardiothoracic and general surgery, and talk to a surgeon who uses the *da Vinci* System.To find a *da Vinci* surgeon, use our surgeon locator.

1. Cancer control is defined in part by margin rates and PSA test scores. The following studies provide support for these claims: Ahlering TE, Woo D, Eichel L, Lee DI, Edwards R, Skarecky DW. Robot-assisted versus open radical prostatectomy: a comparison of one surgeon's outcomes. *Urology*. 2004 May;63(5):819-22. Menon M, Tewari A, Peabody JO, Shrivastava A, Kaul S, Bhandari A, Hemal AK. Vattikuti Institute prostatectomy, a technique of robotic radical prostatectomy for management of localized carcinoma of the prostate: experience of over 1100 cases. *Urol Clin North Am*. 2004 Nov;31 (4):701-17. Tewari A, Srivasatava A, Menon M; Members of the VIP Team. A prospective comparison of radical retropubic and robot-assisted prostatectomy: experience in one institution. BJU Int. 2003 Aug;92(3):205-10.

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Cardiothoracic Surgery

When medication and catheter-based treatments cannot relieve symptoms, surgery remains the accepted treatment for a range of cardiothoracic conditions, including but not limited to mitral valve prolapse, atrial septal defect and coronary artery disease.

Facing either traditional cardiac surgery or open surgery to treat disorders of the organs and tissues in the chest cavity can be a frightening experience. While it may be difficult to focus on next steps, in fact, you may have several choices to make, including which hospital and which surgeon to go to, and which procedure to choose. Learning as much as possible about your surgical options, including minimally invasive alternatives to traditional open surgery may ease some of your concerns.

While surgery is generally the most effective way to treat disorders of the heart, lungs and esophagus, traditional open surgery has a number of inherent drawbacks caused primarily by making a large incision, splitting of the breastbone and spreading the ribs to access the thoracic space. In addition to an 8 to 10" scar down the center of your chest, splitting of the breastbone leads to a lengthy recovery time of eight to twelve weeks as well as a prolonged delay before you will return to normal daily activities.

Fortunately, less invasive options are increasingly available for patients facing cardiothoracic surgery. Many cardiothoracic surgeons are recognizing the benefits of smaller incisions made between the ribs to perform coronary bypass or make repairs to the heart or esophagus under visualization using thoracoscopy – the insertion of a miniaturized video camera between the ribs. But this approach has limitations and is not well suited to more complex cardiac procedures.

Enter the *da Vinci*® Surgical System, providing surgeons and patients with what may be the most effective, least invasive treatment alternative for even the most complex cardiothoracic procedures such as mitral valve repair. Among the potential benefits of *da Vinci*® cardiothoracic surgery are a reduced risk of infection, less blood loss and need for blood transfusions, shorter hospital stay, less pain and scarring, faster recovery and a quicker return to normal activities. Additionally, surgery with the *da Vinci* Surgical System offers the potential for a better clinical outcome.

Learn More about Cardiac Robotic Surgery
Follow this link to learn more about the use of the da Vinci Surgical System for mitral valve repair. To find a da Vinci cardiothoracic surgeon, use our surgeon locator.

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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Mitral Valve Prolapse & Treatment

The mitral valve controls blood flow through the left side of the heart. When it opens, the mitral valve allows blood to flow into the left ventricle – the heart's main pumping chamber. When the left ventricle contracts, the mitral valve closes in order to prevent blood from flowing back toward the lungs.

Sometimes the mitral valve is abnormal from birth. It can also become damaged by infection, with age or from heart disease.

What is Mitral Valve Prolapse?
If the mitral valve leaflets cannot tightly seal the left ventricle, this is called prolapse. With mitral valve prolapse, some blood flows back into the atrium – a condition called regurgitation. Regurgitation can make the heart work harder, leading to further valve damage and increasing the risk of heart failure.

Mitral Valve Prolapse Treatment Options
The treatment options available to a person with mitral valve prolapse depend on the severity of the condition. Some patients may not require any intervention. Others may be prescribed medications.

However, if your symptoms become severe, your doctor may recommend mitral valve prolapse surgery. There are two basic types of valve prolapse surgery: valve repair and valve replacement. In valve replacement, your surgeon cuts out the damaged valve and replaces it with a new, artificial valve. Valve repair involves the surgeon reconstructing your valve using your own tissues.

A new category of minimally invasive surgery, utilizing the robotic assistance of the *da Vinci*® Surgical System, is rewriting the book on mitral valve prolapse surgery. Learn more about *da Vinci* Mitral Valve Prolapse Surgery to help determine if it is the right option for you.

Learn More About Mitral Valve Prolapse Treatment
- Read about mitral valve prolapse surgery
- Read about the benefits of da Vinci when used for mitral valve prolapse surgery

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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Heart Valve Disease

Heart Valves
Heart valves regulate the flow of blood through the heart's four chambers—two small, round upper chambers (atria) and two larger, cone-shaped lower chambers (ventricles). Each ventricle has a one-way inlet valve and a one-way outlet valve. In the right ventricle, the inlet valve is the tricuspid valve, which opens from the right atrium, and the outlet valve is the pulmonary (pulmonic) valve, which opens into the pulmonary arteries. In the left ventricle, the inlet valve is the mitral valve, which opens from the left atrium, and the outlet valve is the aortic valve, which opens into the aorta. Each valve consists of flaps (cusps or leaflets), which open and close like one-way swinging doors.

Heart Valve Disorders
Heart valves don't always work as they should. A person can be born with an abnormal heart valve, a type of congenital heart defect. Also, a valve can become damaged by

- Infections such as infective endocarditis
- Rheumatic fever
- Changes in valve structure in the elderly[1]

A defective heart valve is one that fails to fully open or close. A stenotic heart valve can't open completely, so blood is pumped through a smaller-than-normal opening. A valve also may not be able to close completely. This leads to regurgitation (blood leaking back through the valve when it should be closed).

» Continue to Treatment of Heart Valve Disease

1. "Heart Valves," American Heart Association, www.americanheart.org. URL: http://www.americanheart.org/presenter.jhtml?identifier=4598

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Mitral Valve Conditions

Overview of Mitral Valve Prolapse
Mitral valve prolapse, is a common condition in which the mitral valve leaflets are floppy or loose. Mitral valve prolapse is diagnosed by echocardiography. Most patients with mitral valve prolapse do not have a leaky mitral valve and do not require surgery. When a valve with prolapse has a severe leak, surgery should be considered.

In a normal valve, the flow of blood goes from the left atrium to the left ventricle. Upon closing, it prevents blood from going back into the left atrium. With MVP the flaps fail to close evenly. One or both flaps collapse backwards, sometimes allowing a small amount of blood to leak through the valve.

Mitral valve prolapse, sometimes known as mitral insufficiency or mitral valve regurgitation, is a genetic disorder and seems to affect women three times more than men. It is one of the most common cardiac findings.

Infection of the mitral valve, endocarditis, is extremely rare. However, people with MVP have a slightly greater risk of contracting it.[1]

About the Mitral Valve
The heart has four valves, which open and close to keep blood flowing in the proper direction through the heart. The mitral valve connects the heart's upper-left chamber (atrium) to the heart's lower-left chamber (ventricle).

Mitral valve stenosis—or mitral stenosis—is a narrowing of the mitral valve. This narrowing causes the valve to not open properly and to obstruct blood flow between the left chambers of the heart.

Mitral valve regurgitation, or mitral regurgitation, occurs when the mitral valve doesn't close tightly, allowing blood to flow backward in the heart.

Other Names for mitral valve prolapse

- Barlow's syndrome
- Floppy mitral valve
- Myxomatous mitral valve
- Billowing mitral valve
- Systolic click-murmur syndrome
- Prolapsing mitral leaflet syndrome.[2]

Echocardiography Definition
Echocardiography is a noninvasive diagnostic procedure that uses ultrasound to study to structure and motions of the heart.

Symptoms of Leaky Heart Valve
Many patients with mitral valve disease are asymptomatic (have no symptoms), even with a leak that is severe. When symptoms develop, they include shortness of breath, fatigue,

Usually symptoms do not show up before the age of 14 or 15, but more and more children display central nervous system symptoms before the MVP shows up. Ninety-eight percent of people with mitral valve prolapse Syndrome have nothing wrong with their heart. The majority of symptoms are caused by an out-of-balance nervous system.[3]

Diagnosis

The first step in diagnosing mitral valve prolapse involves listening with a stethoscope. Using a stethoscope, the doctor hears a murmur, which represents turbulent blood flow across an abnormal valve. The diagnosis is confirmed by an echocardiogram. Ultrasound is used in an echocardiogram to allow the doctor to visualize the heart valves and determine the severity and cause of the leak. In most patients, a standard transthoracic echocardiogram (a probe placed on the skin of the chest) is adequate to visualize the valve. Sometimes a transesophageal echocardiogram (a probe passed through the mouth into the esophagus) is necessary to more closely visualize the valve; this is an outpatient procedure.

» Continue to Treatment of Mitral Valve Conditions

1. "Mitral valve prolapse," Medline Plus Medical Encyclopedia, www.mlm.nih.gov. URL: http://www.nlm.nih.gov/medlineplus/ency/article/000180.htm. See also: "Mitral valve prolapse," MayoClinic.com. URL: http://www.mayoclinic.com/health/mitral-valve-prolapse/DS00504
2. "Mitral valve prolapse," Medline Plus Medical Encyclopedia, www.mlm.nih.gov. URL: http://www.nlm.nih.gov/medlineplus/ency/article/000180.htm
3. Kristine A. Scordo, M.D., "Understanding the Mitral Valve Prolapse Syndrome," www.wright.edu. URL: http://www.wright.edu/nursing/practice/mvp/default.htm

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Treatment of Mitral Valve Conditions

Most of the time, there are no (or few) symptoms for mitral valve conditions, and treatment is not needed. If you have severe mitral valve prolapse, you may need to stay in the hospital. Surgery to repair or replace the valve may be needed if you have severe mitral regurgitation or your symptoms get worse.

Commonly Prescribed Medications

- Anti-arrhythmics drugs help control irregular heart beats.
- Vasodilators dilate (widen) blood vessels, which makes it easier for the heart to work.
- Digitalis is used to strengthen the heartbeat.
- Diuretics (water pills) help remove excess fluid in the lungs.
- Propranolol is given for palpitations or chest pain.
- Anticoagulants (blood thinners) help prevent blood clots in persons who also have atrial fibrillation.[1]

Surgery

Surgery should be considered in virtually all patients with a leak that is graded as a 4 (severe) and in some patients with a leak that is graded as a 3 (moderately severe). When a patient with mitral valve regurgitation develops symptoms, a decrease in heart function, or an increase in heart size, surgery is recommended. Surgery should also be considered when a patient develops atrial fibrillation, which is an irregular heartbeat. Surgery is also recommended in many asymptomatic patients who have a severe leak; in these patients, surgery improves long-term survival.2

Minimally Invasive Surgery

Recently, minimally invasive approaches to Mitral Valve Repair are replacing sternotomy as the surgical method of choice. Of the minimally invasive approaches, robotic surgery (*da Vinci* Surgery) has many practical advantages for both the patient and the surgeon – precision, fewer complications, reduced blood loss and shorter hospital stays. According to the Cleveland Clinic, there is a 95% chance that a leaky mitral valve can be repaired using minimally invasive techniques.[3]

1. "Treatment Options for Mitral Valve Disease," Mayo Clinic, www.mayoclinic.org. URL: http://www.mayoclinic.org/mitral-valve-disease/treatment.html
2. "Mitral Valve Repair: Answers to our most common questions," Cleveland Clinic Heart & Vascular Institute, www.clevelandclinic.org. URL: http://www.clevelandclinic.org/heartcenter/pub/guide/disease/valve/mvrepairfaq.htm
3. *Ibid.*

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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Mitral Valve Repair

The best available surgical treatment for mitral valve prolapse is repair. Mitral valve repair offers a number of significant, life-long benefits as compared to valve replacement. These include a lower risk of mortality, a better chance of long-term survival and more freedom from reoperation:

Mitral Valve Surgery: Repair vs. Replacement

Repair	Replace	Potential Benefit
		Reduced risk of surgical complications [1]
		Higher long-term survival [2, 3, 4, 5]
		Improves function and strength of the heart
		More freedom from re-operation [6, 7]
		No need for life-long blood thinner medication
		Shorter hospital stay

Approach for Heart Valve Repair – Alternative to Heart Valve Replacement
The most common way to repair a valve through surgery is with sternotomy – cutting through the breastbone and opening the ribs. Cutting through the body's natural protective structure for the heart can cause significant trauma, prolong healing time and increase your risk for serious complications and even mortality. Moreover, an open approach doesn't always provide the visualization and access necessary to complete a repair. In fact, the majority of patients who undergo stemotomy receive an artificial valve.[8]

Learn More about Robotic Heart Valve Surgery
Read about what is potentially the most effective, least invasive approach to mitral valve repair surgery – *da Vinci* ® Mitral Valve Repair.

1. Thourani VH, Weintraub WS, Guyton RA, et al. Outcomes and Long-Term Survival for Patients Undergoing Mitral Valve Repair Versus Replacement. *Circulation. 2003;108:298-304* (Emory University Atlanta)
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3. Enriquez-Sarano M, Schaff H, Frye R. Mitral Regurgitation: What Causes the Leakage Is Fundamental to the Outcome of Valve Repair. Circulation 2003;108:253-256.(Mayo Clinic Rochester)
4. Gillinov AM, Wierup PN, Blackstone EH, et al. Is Repair Preferable to Replacement for Ischemic Mitral Regurgitation? *J Thorac Cardiovasc Surg 2001 Dec; 122(6):1125-41* (Cleveland Clinic)
5. Grossi E, Goldberg J, LaPietra A, et al. Ischemic mitral valve reconstruction and replacement: Comparison of long term survival and complications. *J Thorac Cardiovasc Surg 2001 Dec; 122 (6):1107-24* (NYU)
6. Rodgers, E. Heart valve repair or replacement for mitral valve regurgitation or prolapse. WebMD.

7. Ruel M, Kulik A, Rubens FD, Bedard P, Masters RG, Pipe AL, Mesana TG. Late incidence and determinants of reoperation in patients with prosthetic heart valves. Eur J Cardiothorac Surg. 2004 Mar;25(3):364-70.

8. Society for Thoracic Surgeons & Duke Clinical Research Institute. Executive Summary. STS Fall 2005 Report.

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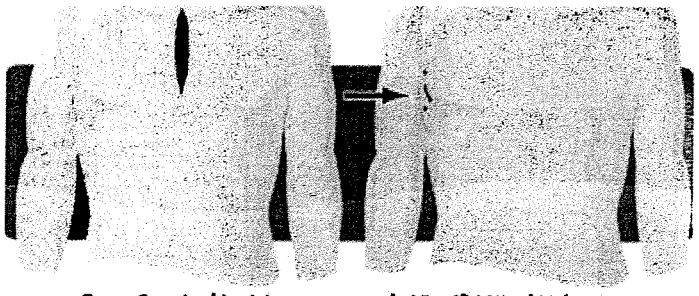
da Vinci Mitral Valve Repair

If your doctor recommends surgery to treat mitral valve prolapse, you may be a candidate for *da Vinci*® Mitral Valve Repair, potentially the most effective least invasive treatment option available.

da Vinci Mitral Valve Repair is an alternative to conventional open heart surgery – the traditional way to treat mitral valve disease. *da Vinci* Mitral Valve Repair is performed using the *da Vinci* Surgical System, enabling your surgeon to operate with unparalleled precision and control through a few small incisions.



Open Surgical Incision **da Vinci® Mitral Valve Repair Incision**

da Vinci can help your surgeon repair your valve and help you avoid mitral valve replacement, in which your natural valve tissues are cut away and replaced with an artificial valve. This is important because a repair can provide you with many significant advantages as compared with mitral valve replacement, including no need to take life-long blood thinners, less need for reoperation[1,2], reduced risk of surgical complications[3], a higher long-term survival rate[4,5,6], and improved heart function[4]. A recent study suggests that the *da Vinci* System may allow surgeons to complete 50% more repairs than they can when using an open surgical approach.[7]

In addition to avoiding the pain and trauma of sternotomy and rib spreading, *da Vinci* Mitral Valve Repair may provide patients with the following benefits over open surgery:

- Less risk of infection
- Less blood loss and need for blood transfusions
- Shorter hospital stay
- Significantly less pain and scarring
- Faster recovery
- Quicker return to normal activities.
- And a potentially better clinical outcome

As with any surgery, these benefits cannot be guaranteed, as surgery is both patient- and procedure-specific. While *da Vinci* Mitral Valve Repair is considered safe and effective, it may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

Learn More about Robotic Heart Surgery
If you are a candidate for mitral valve surgery, talk to a surgeon who performs *da Vinci* Mitral Valve Repair. To find a *da Vinci* surgeon, use our surgeon locator.

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Clinical References

The following selected publications support the clinical efficacy of *da Vinci* Cardiac Surgery.

Please note: While Medline provides some links to publishers' sites offering PDFs/full text articles, downloads typically require a fee. You may also contact academic libraries (for example, University of California) for document delivery services.

- Mitral Valve Repair
- Cardiac Rsynchronization
- Cardiac Revascularization
- Cardiac Tissue Ablation
- General Cardiac Surgery
- Atrial Septal Defect Repair
- Other Applications

Mitral Valve Repair

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While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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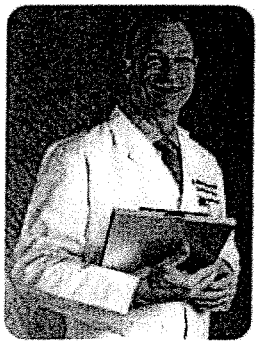

Wiley Nifong, M.D.
Associate Professor of Cardiothoracic Surgery
Brody School of Medicine
East Carolina University

Dr. Wiley Nifong narrates this informative patient education seminar on mitral valve prolapse. Dr. Nifong provides an overview of the condition and discusses the advantages of repair vs. replacement of the mitral valve. Dr. Nifong also provides insight into the advantages of *da Vinci* Mitral Valve repair.

View and listen to the seminar here
(a new browser window will open).

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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Patient Experiences

Some of the most dramatic patient outcome stories are evidenced by cardiac patients who have avoided open surgery and a sternotomy through *da Vinci* cardiac surgery. These patients recount their real-life experiences and illustrate the potential benefits.

A very active 56 year old California man speaks about his experience of da Vinci cardiac bypass surgery
– Terry R., Exercise physiologist
Los Angeles, California
– Cardiac revascularization
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"Being a twenty-five year old who was just about to get married, I did not want a big scar down the middle of my chest..."
– Marianne W., School Teacher
Atlanta, Georgia
– Surgery to repair an Atrial Septal Defect
Watch Video

Learn More
If you are considering major surgery, talk to a doctor who performs *da Vinci* Surgery. To find a *da Vinci* surgeon, use our surgeon locator.

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General Surgery

When medication, lifestyle changes and other non-surgical treatments cannot relieve symptoms, surgery is the accepted treatment for a broad range of conditions. Surgery can be a scary proposition for a patient, no matter how routine the procedure. If surgery is recommended, you want to learn as much as you can about your surgical options and find the physician and hospital that are right for you.

While surgery is generally the most effective treatment option for a range of abdominal and other conditions, traditional open surgery with a large incision has its drawbacks – pain, trauma, long recovery time and risk of infection.

Fortunately, less invasive options are available to many patients facing surgery. The most common of these is laparoscopic surgery, in which smaller incisions are used. While laparoscopy is effective for many routine procedures, it has inherent limitations when more intricate and complex surgery is required.

A New Category in Minimally Invasive Surgery
Thanks to the latest evolution in surgical technology, physicians now have an effective alternative to traditional open surgery and laparoscopy that may allow them to provide patients with the best of both approaches. With the assistance of the *da Vinci*™ Surgical System, surgeons can now operate using only 1-2 cm incisions, but with greater precision and control than ever before. *da Vinci* can help surgeons minimize the pain and risk associated with surgery while increasing the likelihood of a fast recovery and excellent clinical outcomes.[1]

Learn More
To learn more about the most advanced minimally invasive approach to bariatric (weight-loss) surgery, click here. If you would like to speak with a surgeon who uses the *da Vinci* System for bariatric or other general surgery procedures, use our surgeon locator.

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

1. Jacobsen G, Berger R, Horgan S. The role of robotic surgery in morbid obesity. *J Laparoendosc Adv Surg Tech A.* 2003 Aug;13(4):279-83. Review.

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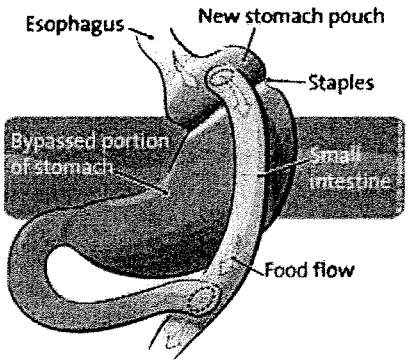
Obesity & Treatment Options

In recent years, obesity has emerged as one of the most serious medical conditions affecting the developed world. It is now the second-leading cause of preventable death in the U.S. [1] This may be because obesity is a progressive disease that often contributes to other serious health problems, such as diabetes, high blood pressure, heart disease, sleep apnea, arthritis and even cancer. [2]

It is estimated that more than two thirds of Americans are overweight and more than 20% are obese. Body mass index (BMI), a ratio of weight to height, is one way to measure obesity. Obesity may exist when a person has a BMI greater than 40, or a BMI of 35 with two or more weight-related health problems. Obesity can also be defined as being 100 or more pounds heavier than ideal weight. To calculate your BMI, use the following formula:



BMI = ((Your weight in pounds)/ (Your height in inches)(Your height in inches)) x 703

Although weight gain is influenced by many social and psychological factors, at its most basic level, obesity can be described as an energy imbalance: People gain weight when they take in more energy (measured in calories) than they consume through physical activity and metabolism. Excess energy is stored as fat.

Weight Loss: Treatment Options
Treatment for obesity may focus on related health problems as much as on weight loss. Your physician can advise you on your various options for weight loss, which may include diet, exercise and lifestyle changes, as well as medication.

An increasingly common approach to weight loss is surgery. According to the American Society for Bariatric Surgery (ASBS), more than 100,000 people had weight loss surgery in 2003, up from about 16,000 in the early 1990s.[3] Most bariatric (or weight loss) surgery focuses on either reducing the size of the stomach or reducing calorie absorption. Both approaches share the same goal: To reduce the body's ability to absorb and store calories in the form of excess fat.

Additional treatment options for obesity may be available and most appropriate for your paticular medical condition. Always consult with your doctor about all treatment options, as well as their risks and benefits.

Learn More
- Read about bariatric surgery
- Read about the benefits of *da Vinci* when used for bariatric surgery

1. Stein CJ, Colditz GA. The epidemic of obesity. J Clin Endocrinol Metab. 2004 Jun;89(6):2522-5. Review.
2. Johnson W, Demaria E. Surgical treatment of obesity. Curr Treat Options Gastroenterol. 2006 Apr;9 (2):167-74.
3. National Institute of Diabetes and Digestive and Kidney Diseases. http://win.niddk.nih.gov/publications/labs.htm#howmany

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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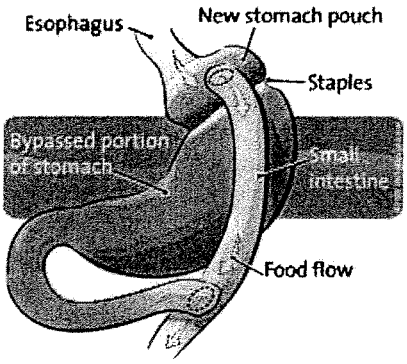
Gastric Bypass Surgery

Surgical Weight Loss
The goal of weight loss surgery is to reduce the body's ability to absorb and store calories. This result is achieved by using either restrictive or malabsorptive bariatric procedures.

Restrictive procedures reduce the size of the stomach, limiting the volume of food that can be consumed at one time. Restrictive procedures include vertical banded gastroplasty (VBG), adjustable gastric banding (AGB) and Roux-en-Y gastric bypass (RYGB) – although gastric bypass is also malabsorptive as well.



Malabsorptive procedures reduce your body's ability to store calories by diverting food away from the parts of your digestive system that absorb calories. Largely malabsorptive procedures include biliopancreatic diversion (BPD) and biliopancreatic diversion with duodenal switch (BPD-DS).

While vertical banded gastroplasty has largely fallen out of favor, other procedures have proven effective for achieving and maintaining healthier weight.[1] Each has also proven effective for reversing or minimizing weight-related health problems.[1]

Gastric Bypass Surgery
Gastric bypass is the most common bariatric surgery performed in the United States.[1] It offers a combination of both restrictive and malabsorptive procedures, which appears to be a very effective recipe for weight loss. Moreover, it is considered the gold standard surgical treatment.[1]

While gastric bypass is becoming more common, this elective surgery has serious risks. Potential complications after gastric bypass include leakage of the digestive tract, which requires re-operation and can cause death. Surgeons must have excellent visualization, dexterity and control to complete this technically challenging operation successfully.

The most common approach to gastric bypass is through a large abdominal incision. This approach generally provides adequate visualization and access, but causes patients significant pain and trauma. Laparoscopic gastric bypass can offer patients all the benefits of a minimally invasive procedure. However, laparoscopic gastric bypass has a long learning curve and requires specialized surgical skills. And because there are additional risks and challenges associated with operating on high-BMI patients, the majority of bariatric surgeons do not use this difficult technique.

Learn More
If your doctor recommends surgery to reduce your weight, you may be a candidate for *da Vinci* Gastric Bypass, potentially the most effective, least invasive surgery for weight loss.

1. Johnson W, Demaria E. Surgical treatment of obesity. Curr Treat Options Gastroenterol. 2006 Apr;9 (2):167-74.

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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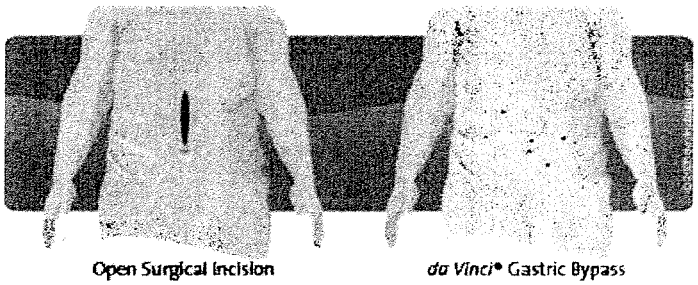
da Vinci Gastric Bypass

If your doctor recommends surgery to control your weight, you may be a candidate for *da Vinci* Gastric Bypass, potentially the most effective, least invasive option for weight loss surgery. *da Vinci* Gastric Bypass allows surgeons to provide the gold standard treatment,[1] using only a few small incisions.



Open Surgical Incision *da Vinci*® Gastric Bypass

da Vinci Gastric Bypass offers numerous potential benefits over open abdominal surgery, including:

- Significantly less pain
- Less blood loss
- Fewer Complications
- Less scarring
- A shorter hospital stay
- And a faster return to normal daily activities.

In addition, *da Vinci* Gastric Bypass offers the potential for better outcomes than with open or laparoscopic approaches. This is because *da Vinci* provides surgeons with superior visualization, dexterity, control and ergonomics required for this technically demanding operation. *da Vinci* allows surgeons to operate on higher-BMI patients; it can result in shorter procedures times and may offer reduced risk for serious complications by providing surgeons with superior visualization and instrumentation. [2]

As with any surgery, these benefits cannot be guaranteed, as surgery is both patient- and procedure-specific. While *da Vinci* Gastric Bypass is considered safe and effective, it may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

Learn More
If you are a candidate for bariatric surgery, talk to a surgeon who performs gastric bypass using the *da Vinci* System. To find a *da Vinci* surgeon, use our surgeon locator.

1. Johnson W, Demaria E. Surgical treatment of obesity. Curr Treat Options Gastroenterol. 2006 Apr;9 (2):167-74

Surg Tech A. 2003 Aug;13(4):279-83. Review.

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Gynecologic Surgery

When medication and non-invasive procedures are unable to relieve symptoms, surgery remains the accepted and most effective treatment for a range of gynecologic conditions. These include, but are not limited to, cervical and uterine cancer, uterine fibroids, endometriosis, uterine prolapse and menorrhagia or excessive bleeding.

Traditional open gynecologic surgery, using a large incision for access to the uterus and surrounding anatomy, has for many years been the standard approach to many gynecologic procedures. Yet with open surgery can come significant pain, trauma, a long recovery process and threat to surrounding organs and nerves. For women facing gynecologic surgery, the period of pain, discomfort and extended time away from normal daily activities that usually follows traditional surgery can understandably cause significant anxiety.

Fortunately, less invasive options are available. Some gynecologic procedures enable surgeons to access the target anatomy using a vaginal approach, which may not require an external incision. But for complex hysterectomies and other gynecologic procedures, robot-assisted surgery with the *da Vinci*® Surgical System may be the most effective, least invasive treatment option. Through tiny, 1-2 cm incisions, surgeons using the *da Vinci* System* can operate with greater precision and control, minimizing the pain and risk associated with large incisions while increasing the likelihood of a fast recovery and excellent clinical outcomes.

Learn More about the da Vinci Surgical System
To learn more about *da Vinci* Hysterectomy or any other gynecologic surgery utilizing the *da Vinci* Surgical System, click here. To find a *da Vinci* gynecologic surgeon, use our surgeon locator.

* Also referred to as the *da Vinci* robot

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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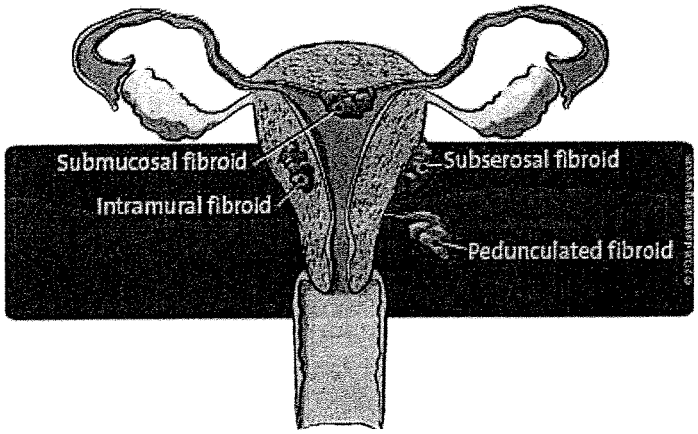
da Vinci Myomectomy

If your doctor recommends surgery to treat uterine fibroids,* you may be a candidate for a new, uterine-preserving, minimally invasive procedure – *da Vinci* Myomectomy. Using the assistance of the most advanced combination of surgical and robotics technology available – the *da Vinci* Surgical System – *da Vinci* Myomectomy enables surgeons to perform this delicate operation with unmatched precision and control – using only a few small incisions.



Another surgical alternative, laparoscopic myomectomy, is also minimally invasive. However, conventional laparoscopy has inherent technological limitations that limit its effectiveness for more complex surgical procedures.

In contrast, for many patients, *da Vinci* Myomectomy, a robot-assisted laparoscopic myomectomy, can provide the most effective, least invasive treatment for uterine fibroids. It is also a uterine-preserving alternative to open abdominal hysterectomy. Among the potential benefits of *da Vinci* Myomectomy as compared to traditional open abdominal surgery are:

- Opportunity for future pregnancy
- Significantly less pain
- Less blood loss
- Fewer complications
- Less scarring
- A shorter hospital stay
- A faster return to normal daily activities

da Vinci Myomectomy is performed with the *da Vinci* Surgical System, which allows your surgeon to perform a minimally invasive, yet remarkably precise, comprehensive reconstruction of the uterine wall, regardless of the size or location of your fibroids. The unique level of control and precision provided by *da Vinci* also can help your surgeon provide the most precise and thorough reconstruction possible, helping to prevent

As with any surgery, these benefits cannot be guaranteed, as surgery is both patient- and procedure-specific. While myomectomy performed using the *da Vinci* Surgical System is considered safe and effective, this procedure may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

Learn more about Myomectomy
If you are a candidate for myomectomy, talk to a surgeon who performs da Vinci Myomectomy. To find a da Vinci surgeon, use our surgeon locator.

* Uterine fibroids are also called fibroids, uterine tumors, leiomyomata (singular – leiomyoma) and myomas or myomata (singular – myoma)

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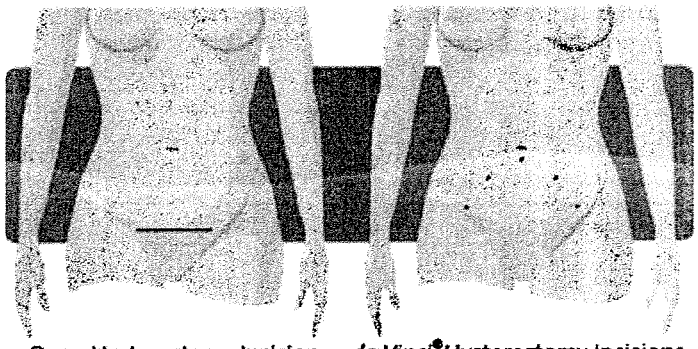
da Vinci Hysterectomy

If your doctor recommends hysterectomy, you may be a candidate for *da Vinci* Hysterectomy, one of the most effective, least invasive treatment options for a range of uterine conditions. *da Vinci* Hysterectomy is performed using the *da Vinci*™ Surgical System, which enables surgeons to perform with unmatched precision and control – using only a few small incisions.



Open Hysterectomy Incision **da Vinci® Hysterectomy Incisions**

da Vinci Hysterectomy offers numerous potential benefits over traditional approaches to vaginal, laparoscopic or open abdominal hysterectomy, particularly when performing more challenging procedures like radical hysterectomy for gynecologic cancer. Potential benefits include:

- Significantly less pain
- Less blood loss
- Fewer complications
- Less scarring
- A shorter hospital stay
- A faster return to normal daily activities

Moreover, *da Vinci* provides the surgeon with a superior surgical tool for dissection and removal of lymph nodes during cancer operations, as compared to traditional open or minimally invasive approaches.[1] *da Vinci* Hysterectomy also allows your surgeon better visualization of anatomy, which is especially critical when working around delicate and confined structures like the bladder. This means that surgeons have a distinct advantage when performing a complex, radical hysterectomy involving adhesions from prior pelvic surgery or non-localized cancer, or an abdominal hysterectomy.[2]

As with any surgery, these benefits cannot be guaranteed, as surgery is both patient- and procedure-specific. While radical hysterectomy or abdominal hysterectomy performed using the *da Vinci* Surgical System are considered safe and effective, these procedures may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

If you are a candidate for hysterectomy, talk to a gynecologist or gynecologic oncologist (a cancer specialist) who performs *da Vinci* Hysterectomy. To find a *da Vinci* gynecologic surgeon, use our surgeon locator.

1. Boggess JF. *da Vinci*® Hysterectomy for Endometrial Cancer with Staging. Presented at ISI WWSSM 1/06. 871391_rev B_dVH Endometrial Cancer Presentation
2. UNC Department of Obstetric & Gynecology Health & Healing in the Triangle Vol 8 No 3 pp 22-23.

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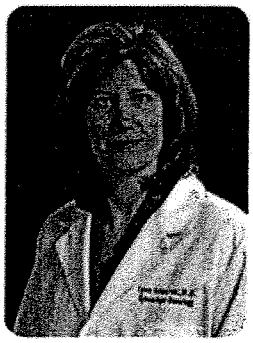
Gynecologic Patient Seminar



Lynn Kowalski, M.D., FACOG
Gynecologic Oncologist
Nevada Surgery
& Cancer Care
Las Vegas, Nevada

Dr. Lynn Kowalski narrates this informative patient education seminar on gynecologic conditions. The presentation provides an overview of common conditions and discusses various treatment options and their respective advantages.

View and listen to the seminar here
(a new browser window will open).

While clinical studies support the effectiveness of the *da Vinci*® System when used In minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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Patient Experiences

The following real-life experiences illustrate the potential benefits of *da Vinci*® Surgery.

Patient: Christina Clark-Zoltek
Surgeon: Dr. John F. Boggess
Institution: N.C. Women's Hospital at the University of North Carolina Hospitals, Chapel Hill, NC

"I had my son's third birthday party, with the works, four days (after the procedure). I was a little slow, but, you know, I would have still been in the hospital if I'd had a traditional hysterectomy."

Watch video

Patient: Sylvia Tippett
Surgeon: Dr. John F. Boggess
Institution: N.C. Women's Hospital at the University of North Carolina Hospitals, Chapel Hill, NC

"It's mind-boggling to me that I had a total hysterectomy and in less than 24 hours I was headed home and in less than two weeks I was back to normal activities. I don't even feel like I've had surgery. As a nurse, I'm thinking every woman should receive this type of care."

Watch video

Patient: Karena O'Connell
Surgeon: Dr. Mark Zepeda
Institution: St. Joseph Hospital, Orange, CA

"There was no pain from the procedure and it was one week ago today and I can't even tell I had the procedure. This isn't your ... grandma's hysterectomy."

Watch video

Learn More

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Urologic Surgery

When medication and other non-surgical treatments are either unavailable or cannot relieve symptoms, surgery is the accepted treatment for a broad range of conditions that affect the male reproductive organs and the organs of the urinary tract. These conditions include, but are not limited to, prostate cancer, ureteropelvic junction (UPJ) obstruction, bladder and kidney cancer and vesicoureteral reflux.

Facing any kind of urologic surgery creates a great deal of anxiety for most men. Among your concerns is: "Will my body function normally following surgery?" Traditional open urologic surgery – in which large incisions are made to access the pelvic organs – has been the standard approach when surgery is warranted. Yet common drawbacks of this procedure include significant post-surgical pain, a lengthy recovery and an unpredictable, potentially long-term impact on continence and sexual function.

Fortunately, less invasive surgical options are available to many patients facing urologic surgery. The most common of these is laparoscopy, which uses small incisions. While laparoscopy can be very effective for many routine procedures, limitations of this technology prevent its use for more complex urologic surgeries.

A new category of surgery, introduced with the development of the *da Vinci*® Surgical System, is being used by an increasing number of surgeons worldwide for prostatectomy and other urologic procedures. This minimally invasive approach, utilizing the latest in surgical and robotics technologies, is ideal for delicate urologic surgery. This includes prostatectomy, in which the target site is not only tightly confined but also surrounded by nerves affecting urinary control and sexual function. Using *da Vinci*, your surgeon has a better tool to spare surrounding nerves, which may enhance both your recovery experience and clinical outcomes.

Learn More
To learn more about minimally invasive options for urologic surgery click here. To find a *da Vinci* urologic surgeon, use our surgeon locator.

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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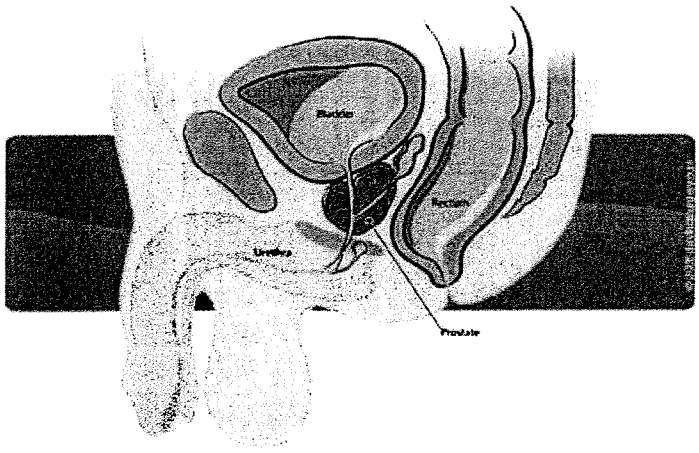
Prostate Cancer & Treatment

The prostate is a male reproductive gland that produces a fluid found in semen. Located below the bladder and in front of the rectum, the prostate surrounds the urethra — the tube that empties urine from the bladder.

Prostate cancer affects the prostate gland and may spread to surrounding structures. While most men with prostate cancer have no symptoms, physician can find prostate cancer during a regular checkup, using a combination of a blood test called a PSA and a digital rectal exam (DRE).



Nearly one in six American men will be diagnosed with prostate cancer during his lifetime.[1] With greater awareness, prostate cancer detection is on the rise and mortality is declining. Moreover, better treatments are allowing more men to return to active and productive lives after treatment.

Treatment Options
If the you have an early diagnosis of prostate cancer, there is usually a range of treatment options. These may include conservative management, radiation therapy with either external bream or brachytherapy therapy, cryosurgery and prostatectomy – surgical removal of the prostate. Your treatment options will depend on a number of factors, including the stage of the disease, your age and health or personal preference.

Learn More
- Information on prostatectomy
- Information on *da Vinci* Prostatectomy

1. The National Prostate Cancer Coalition: www.fightprostatecancer.org home/treatment & research/treatment options/surgery

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About Prostate Cancer

Overview
Prostate cancer is a disease in which malignant (cancer) cells form in the tissues of the prostate. The prostate is a gland in the male reproductive system located just below the bladder and in front of the rectum. It is about the size of a walnut and surrounds the urethra (the tube that empties urine from the bladder). The prostate gland produces fluid that makes up part of the semen.[1]

Statistics
Prostate cancer is the most common non-skin malignancy in men[2] and is responsible for more deaths than any other cancer, except for lung cancer. However, microscopic cancer is found at autopsy in many if not most men. The American Cancer Society (ACS) estimates that during 2007 about 218,890 new cases of prostate cancer will be diagnosed in the United States. About 1 man in 6 will be diagnosed with prostate cancer during his lifetime, but only 1 man in 34 will die of it. A little over 1.8 million men in the United States are survivors of prostate cancer.[3]

Prognosis & Treatment
Treatment options and prognosis depend on the stage of the cancer, the Gleason score[4], and the patient's age and general health. With greater public awareness, early detection is on the rise and mortality rates are declining. Additionally, new advances in medical technology are enabling cancer patients to go on to live active and productive lives after their treatment.

View and Listen to an Narrated Educational Presentation on Prostate Cancer

1. "General Information About Prostate Cancer," National Cancer Institute, www.cancer.gov. URL: http://www.cancer.gov/cancertopics/pdq/treatment/prostate/patient
2. "What are the Key Statistics About Prostate Cancer?," National Cancer Institute, www.cancer.gov. URL: http://www.cancer.org/docroot/CRI/content/CRI_2_4_1X_What_are_the_key_statistics_for_prostate_canc
3. "The Prostate Cancer Outcomes Study: Fact Sheet," National Cancer Institute, www.cancer.gov. URL: http://www.cancer.gov/cancertopics/factsheet/pcos
4. Gleason score: A system of grading prostate cancer tissue based on how it looks under a microscope. Gleason scores range from 2 to 10 and indicate how likely it is that a tumor will spread.. National Cancer Institute, www.cancer.gov. URL: http://www.cancer.gov/common/popUps/popDefinition.aspx?id=CDR0000045696&version=Patient&language=English

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Causes of Prostate Cancer

Overview
Prostate cancer is rare in men under 50 years old. However, the risk increases steadily with age. By the time they are 80, more than half of all men will have some cancerous growth, though in most cases it goes unnoticed. Prostate cancer is usually slow-growing and, in men who have it, is often not the cause of death.

The causes of prostate cancer are largely unknown. It is clear that the chances of developing prostate cancer increase in men over 50. Close relatives of men who have had prostate cancer are also more likely to be affected. Ethnic origin appears to play a part: men of African heritage seem to be at highest risk, and men of Far Eastern descent the lowest.

It may be possible to reduce the risk by avoiding a high fat diet through, for example, cutting down on dairy foods and red meat.

Genetic Causes of Prostate Cancer
Prostate cancer seems to run in some families, suggesting an inherited or genetic factor. Having a father or brother with prostate cancer doubles a man's risk of developing this disease.[1] The risk is even higher for men with several affected relatives, particularly if their relatives were young at the time of diagnosis. Scientists have identified several inherited genes that seem to increase prostate cancer risk, but they probably account for only a small fraction of cases. Genetic testing for these genes is not yet available.

Scientists are just beginning to study why prostate cancer is more prevalent in African-American men than in any other population, and are focusing on the role of inherited factors. Scientists at the National Human Genome Research Institute (NHGRI) have mapped the location of a gene (HPC-1) associated with increased risk of prostate cancer.[2]

Some inherited genes increase risk for more than one type of cancer. For example, inherited mutations of the BRCA1 or BRCA2 genes are the reason that breast and ovarian cancers are much more common in some families. The presence of these gene mutations also increases prostate cancer risk. But they are responsible for a very small percentage of prostate cancer cases.[3]

Possible Environmental Causes of Prostate Cancer
The most consistent risk factors associated with prostate cancer are age, family history and African-American ethnicity. Hormonal factors, as well as high levels of animal fat and red meat in the diet, are also suspected risk factors.

Several occupational studies have linked farming to prostate cancer risk. Exposure to certain agricultural pesticides may be associated with an increased risk of prostate cancer among pesticide applicators, according to a large recent study known as the AHS (Agricultural Health Study) looking at the causes of cancer and other diseases in the farming community.The AHS is a collaborative effort involving the National Cancer Institute (NCI), the National Institute of Environmental Health Sciences, and the Environmental Protection Agency.[4]

There is also a weak association between prostate cancer and cadmium exposure

Possible Links to Vasectomy

Some studies have raised questions about a possible relationship between vasectomy (an operation to cut or tie off the two tubes that carry sperm out of the testicles) and the risk of developing cancer, particularly prostate and testicular cancer. Such a relationship, if proven, would be of importance, as about one in six men over the age of 35 in the United States has had a vasectomy.[6]

1. "Learning About Prostate Cancer," National Human Genome Research Institute, www.genome.gov. URL: http://www.genome.gov/10003559
2. "National Cooperative Study of Hereditary Prostate Cancer in African-Americans," National Human Genome Research Institute, www.genome.gov. URL: http://www.genome.gov/10002040
3. "Genetic Testing for BRCA1 and BRCA2: It's Your Choice," National Cancer Institute, www.cancer.gov. URL: http://www.cancer.gov/cancertopics/factsheet/Risk/BRCA
4. "Agricultural Health Study: Questions and Answers," National Cancer Institute, www.cancer.gov. URL: http://www.cancer.gov/cancertopics/factsheet/agricultural-health-study
5. "Cadmium/Prostate Cancer," National Institute of Environmental Health Services, www.niehs.hih.gov. URL: http://www.niehs.nih.gov/external/faq/cadmium.htm. See also: "Cancer and the Environment," National Cancer Institute, www.cancer.gov. URL: http://www.cancer.gov/newscenter/Cancer-and-the-Environment
6. "Vasectomy and Cancer Risk," National Cancer Institute, www.cancer.gov. URL: http://www.cancer.gov/cancertopics/factsheet/Risk/vasectomy

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Bladder Cancer

The bladder is an organ that stores urine and is located inside the lower part of the abdomen. Bladder cancer is a malignant growth in cells that comprise the lining of the bladder. Over 67,000 new cases of bladder cancer are diagnosed in the U.S. yearly.[1]

Treatment Options

Treatment options depend on the stage of bladder cancer. There are four standard treatment options for bladder cancer:

- Surgery
- Radiation
- Chemotherapy
- Biologic Therapy

Depending on the patient's type and stage of bladder cancer, several treatments may be used in combination to increase the likelihood of a cure. Surgery is the dominant bladder cancer therapy chosen, and is performed in over 90% of bladder cancers (either alone are in combination with another therapy).[2] For patients with muscle invasive bladder cancer, a radical cystectomy is the preferred form of treatment.[3]

Surgical Treatment: Cystectomy

A cystectomy is the removal of all or part of the bladder and possibly the removal of nearby lymph nodes and organs that may contain cancer. If the bladder is removed, the surgeon creates a new way for urine to leave the body. In some cases, a urinary diversion is performed to create a new way to for the body to store and pass urine.[4]

Cystectomy is traditionally performed using an open approach, which requires a large abdominal incision. Another approach, conventional laparoscopy, is less invasive, but limits the doctor's dexterity, visualization and control, compared to open surgery.

***da Vinci*® Cystectomy**

If your doctor recommends surgery for bladder cancer, you may be a candidate for a new, minimally invasive approach - *da Vinci* Cystectomy.

da Vinci Surgery uses state-of-the-art technology to help your doctor perform a more precise operation than conventional instrumentation allows. It offers numerous potential benefits over a conventional open surgery, including:

- Significantly less pain
- Less blood loss
- Fewer transfusions
- Less risk of infection
- Less scarring
- Shorter hospital stay
- Shorter recovery time
- Better clinical outcomes in many cases

da Vinci Cystectomy incorporates the best techniques of open surgery and applies them to a robotic-assisted, minimally invasive approach.

The precision and dexterity afforded by the *da Vinci* Surgical System's advanced instrumentation facilitates a minimally invasive approach for treating bladder cancer. As with any surgery, these benefits cannot be guaranteed, as surgery is patient and procedure specific. If you are a candidate for a cystectomy talk to a urologist who performs *da Vinci* surgery for bladder cancer.

To find a *da Vinci* urologic surgeon, use our surgeon locator.

1. National Cancer Institute: http://www.cancer.gov/cancertopics/pdq/treatment/bladder/patient
2. Wang GJ, Barocas DA, Raman JD, Scherr DS. Robotic vs open radical cystectomy: prospective comparison of perioperative outcomes and pathological measures of early oncological efficacy. Department of Urology, New York-Presbyterian Hospital, Weill Medical College of Cornell University. Jun 2007;17:1-5
3. American Cancer Society 2007 Cancer Facts and Figures
4. National Cancer Institute: http://www.cancer.gov/cancertopics/pdq/treatment/bladder/Patient/page4

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Kidney Disorders and Kidney Cancer

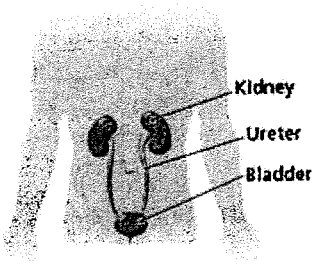
The kidneys are two small organs located behind the abdomen, on each side of the spine. By producing urine, kidneys remove toxic by-products and excess fluids from the body, which helps maintain a critical balance of salt, potassium and acid.

A common condition affecting the kidneys is blockage of the ureters, the tubes that transport urine from the kidneys to the bladder. Blockages of the ureters can be present from birth or acquired through illness or injury, and can create serious side effects like infections and kidney stones. If left untreated, blockages can cause chronic pain and may damage the kidney over time.

Cancer, a second condition affecting the kidneys, can form in the small tubes inside the kidney, which are used for filtering blood, and in the center of the kidney where urine collects.

Treatment Options

Non-cancerous kidney conditions involving a blockage can usually be treated by removing it; depending on the type of blockage, surgery may be used. Kidney cancer, on the other hand, is relatively resistant to radiation and chemotherapy.

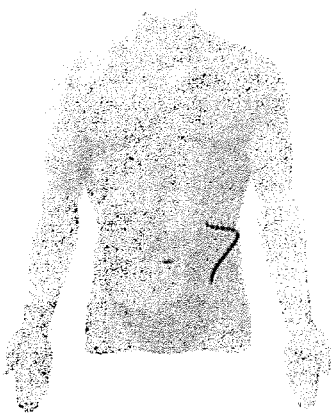


As a result, the gold standard treatment for localized kidney cancer is removal of the kidney or kidney tumors.

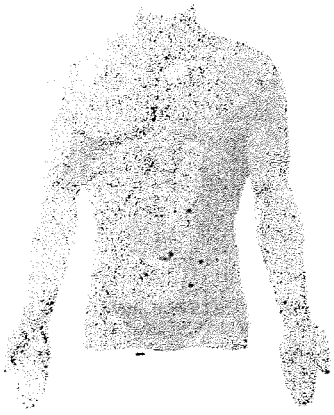
Kidney surgery is traditionally performed using an open approach, which requires a large abdominal incision. Another approach, conventional laparoscopy, is less invasive, but limits the doctor's dexterity, visualization and control, compared to open surgery.

***da Vinci*® for Kidney Conditions**
If your doctor recommends surgery for a kidney condition, you may be a candidate for a new, minimally invasive approach — *da Vinci* Surgery.
da Vinci Surgery uses state-of-the-art technology to help your doctor perform a more precise operation than conventional instrumentation allows. It offers numerous potential benefits over a conventional open surgery, including:

- Significantly less pain
- Less blood loss
- Fewer transfusions
- Less risk of infection
- Less scarring
- Shorter hospital stay
- Shorter recovery time
- Increased potential for kidney preservation in certain prescribed cancer operations
- Better clinical outcomes, in many cases



Open Kidney Surgery Incision



da Vinci Surgery Incisions*

da Vinci Surgery for kidney conditions incorporates the best techniques of open surgery and applies them to a robotic-assisted, minimally invasive approach.

The precision and dexterity afforded by the *da Vinci* Surgical System's advanced instrumentation facilitates a minimally invasive approach for treating kidney disorders and kidney cancer.

As with any surgery, these benefits cannot be guaranteed, as surgery is patient and procedure specific.

If you are a candidate for kidney surgery, talk to a urologist who performs *da Vinci* kidney procedures. To find a *da Vinci* urologic surgeon, use our surgeon locator.

* In Nephrectomy, one incision is enlarged for removal of the kidney.

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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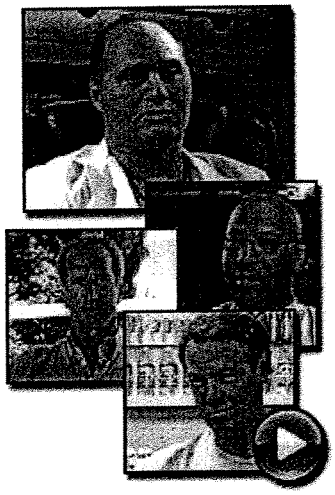
Patient Experiences

Real-life stories of prostate cancer survivors and their experience of *da Vinci* Prostatectomy.

da Vinci Prostatectomy vs. Brachytherapy (Radiation)

Dr. James Porter, MD & Three Patients

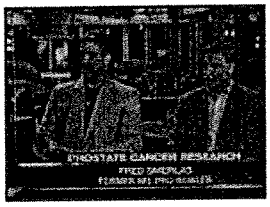


"Not only do I treat patients using *da Vinci* Prostatectomy... I was diagnosed with prostate cancer. When I looked at what I had been doing, at the outcomes of my patients, it was a no-brainer... I knew that I would go forward with the *da Vinci* Prostatectomy."

Watch the stories of Dr. Porter - *da Vinci* physician *and* patient – and his prostatectomy patients:

Watch the video

View the data on *da Vinci* Prostatectomy vs. Brachytherapy >>



"I looked into surgery, I looked into radiation and the seeds ... and I looked into *da Vinci*. I was up walking around that night and got out of the hospital. All the functions, *and the very important function* - thank you, doctor - were still working."

- Fred Smerlas, Former NFL Player
- *da Vinci* Prostatectomy

Watch Video

"A little over two and a half years ago I was diagnosed with prostate cancer..."
– Dennis Murray
High School Superintendent,
Perris, California

Watch Video

"I liked the idea of a more rapid recovery time and the reduced invasiveness compared to open surgery..."
– John Austin
– *da Vinci* Prostatectomy

Watch Video

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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The information provided on this website is not intended to be a substitute for a thorough discussion with your doctor about whether surgical treatment with the *da Vinci* Surgical System is right for you. There are risks associated with any surgical procedure and individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. If you are a patient, consult with a qualified physician familiar with the *da Vinci* Surgical System about treatment options that may be appropriate for your medical condition.

Indications for Use
The *da Vinci* Surgical System is indicated for assistance in minimally invasive urological and general laparoscopic surgical procedures; gynecologic laparoscopic surgical procedures; general non-cardiovascular thoracoscopic surgical procedures; and thoracoscopically-assisted cardiotomy. The *da Vinci* Surgical System may also be used with an auxiliary incision to perform cardiac revascularization under certain circumstances. The System is intended for use by trained physicians in an operating room environment in accordance with the representative, specific procedures set forth in its professional Instructions for Use.

Contraindications for Use
Any and all factors that would make the use of conventional minimally invasive instruments and surgical technique unadvisable also apply to the use of the *da Vinci* Surgical System. General contraindications to minimally invasive surgery may include bleeding disorders, history of prior surgery, pregnancy and significant cardio-pulmonary conditions.

Alternative Treatment Options
Although the *da Vinci* Surgical System is considered safe and effective, it may not be appropriate for every individual, as an individual's circumstances may preclude using minimally invasive techniques or suggest other treatment options. Always ask your doctor about all treatment options that may be appropriate for your medical condition, as well as their risks and benefits. If you have questions about the *da Vinci* Surgical System or a *da Vinci* procedure, consult with a qualified physician familiar with the *da Vinci* Surgical System. A list of physicians experienced with the *da Vinci* Surgical System can be found in the Surgeon Locator section.

Conversion to Non-Minimally Invasive Technique
Environmental or equipment failures may cause the *da Vinci* Surgical System to be unavailable, and may require your doctor to convert to alternative surgical techniques. Ask your doctor about the potential risk of such conversions.

Surgeon Training
The *da Vinci* Surgical System should be used only by surgeons who have developed adequate robotic skills to perform the tasks associated with each procedure and who have received specific training in the use of the *da Vinci* Surgical System. Training provided by Intuitive Surgical is limited to product education on the *da Vinci* surgical system and does

Intuitive Surgical makes no claims as to the competency, training or licensing of the physicians listed or identified on this site. We encourage patients to investigate your surgeon's training and experience by searching the American Medical Association's (AMA) "Directory of Physicians in the U.S." and the American Board of Medical Specialties (ABMS) "Official Directory of Board Certified Medical Specialists".

Medical Advice Disclaimer
These pages are not intended to provide medical advice or physician instruction on the appropriate use of products produced or supplied by Intuitive, its affiliates, related companies, or its licensors or joint venture partners. Information provided should not be used for diagnostic or training purposes.

If you are a physician, contact Intuitive Surgical for further information on product training. Surgeons or others who are considering using robotic-assisted surgery should only do so after successfully completing required medical training and certification as well as the relevant training mandated in the professional guidelines of their own hospital, institution, or society – including training on the use of the *da Vinci* Surgical System.

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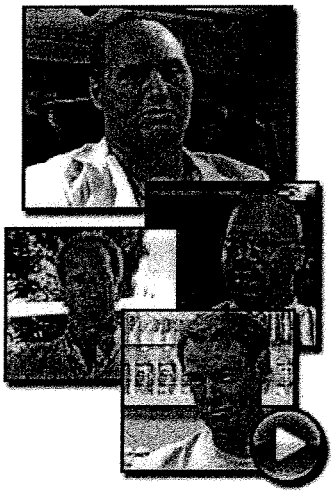
Meet *da Vinci* Patients

These stories reveal the real-life experiences of people who have faced potentially life-threatening conditions. Each one provides a window into the potential benefits of minimally invasive surgery with the *da Vinci Surgical System*.

***da Vinci* Prostatectomy vs. Brachytherapy (Radiation)**

Dr. James Porter, MD & Three Patients



"Not only do I treat patients using *da Vinci* Prostatectomy... I was diagnosed with prostate cancer. When I looked at what I had been doing, at the outcomes of my patients, it was a no-brainer... I knew that I would go forward with the *da Vinci* Prostatectomy."

Watch the stories of Dr. Porter - *da Vinci* physician *and* patient – and his prostatectomy patients:

Watch the video

View the data on *da Vinci* Prostatectomy vs. Brachytherapy >>

"A little over two and a half years ago I was diagnosed with prostate cancer..."
– Dennis Murray
High School Superintendent,
Perris, California
– *da Vinci* Prostatectomy

Watch Video

"Being a competitive tennis professional player all my life , I had been used to being in tough situations. When I was diagnosed with prostate cancer in August, 2006, I was devastated ! I made up my mind that this disease would not beat me..."

– *da Vinci* Prostatectomy
Read his Story >>

Additional urologic surgery patient stories >>

"I had my son's third birthday party, with the works, four days (after the procedure). I was a little slow, but, you know, I would have still been in the hospital if I'd had a traditional hysterectomy."
- Christina Clark-Zoltek, Kindergarten Teacher, Mother, Kinston, NC
- Hysterectomy to resolve cervical cancer.

Watch video

"It's mind-boggling to me that I had a total hysterectomy and in less than 24 hours I was headed home. I don't even feel like I've had surgery. As a nurse, I'm thinking every woman should receive this type of care."
- Sylvia Tippett, Orthopedic Nurse, North Carolina
- Hysterectomy to resolve utinere cancer.

Watch video

"There was no pain from the procedure and it was one week ago today and I can't even tell I had the procedure..."
– Karina O., Full time mother & wife,
Orange, California
– Hysterectomy to resolve a uterine condition

Watch Video

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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da Vinci Surgery.

da Vinci Procedures
Cardiothoracic Surgery
General Surgery
Gynecologic Surgery
Urologic Surgery
Important Safety Information
Webcast Surgery

Live Surgery Webcasts

Real-time live surgery webcasts are available on an ongoing basis on the Internet. They can be viewed live and frequently allow you the opportunity to ask questions of the surgeons performing the procedures during the case. The surgeries are also available for viewing after the case as a recorded archive. Follow the links below for a listing of upcoming and archived cases from centers across the United States.

Upcoming Webcast - *da Vinci*® Partial Nephrectomy

da Vinci Partial Nephrectomy, to be performed by Craig Rogers, M.D., Director of Robotic Renal Surgery at Henry Ford Hospital and Director of Urologic Oncology at Henry Ford West Bloomfield Hospital, at 5:00PM est, December 6, 2007. James Peabody, M.D., Senior Staff Surgeon of the Vattikuti Urology Institute, will moderate and take questions from viewers.

Webcast Archive - *da Vinci* Sacrocolpopexy

da Vinci sacrocolpopexy surgery - Replay of Webcast

On Monday, September 17th, 2007, a da Vinci Sacrocolpopexy was performed by Dr. Anthony Visco, Associate Professor, Director of the Division of Urogynecology and Reconstructive Pelvic Surgery, Director of Gynecologic Robotic Surgery, and Vice-Chair of the Department of Obstetrics & Gynecology at Duke University Medical Center.

da Vinci® Sacrocolpopexy represents a state-of-the-art minimally invasive approach to surgically correct vaginal vault prolapse by resupporting the vagina to the sacrum using a polypropylene mesh.

The superior high-resolution 3D vision, fully wristed instrumentation and Intuitive® motion of the da Vinci Surgical System allows surgeons to perform a reproducible sacrocolpopexy with far greater surgical precision, ease and efficiency compared to conventional laparoscopy, while applying techniques used in traditional open surgery.

Webcast Archive - *da Vinci* Prostatectomy

da Vinci prostatectomy surgery - Replay of Webcast, performing by Dr. David Emmott, MD on November 2, 2006.

Shawnee Mission Medical Center hosted its third live surgical Webcast on Thursday, November 2, when urologist David Emmott, MD, performed a robot-assisted radical prostatectomy using the *da Vinci*® Surgical System.

Shawnee Mission Medical Center was the first hospital the in region to perform radical prostatectomy using the *da Vinci*® in 2002. Since that time, Emmott and his partner, Scott Montgomery, MD, have performed more than 200 procedures.

Webcast Archive - *da Vinci* Prostatectomy

da Vinci prostatectomy surgery - Replay of Webcast, performed by Dr. Jean Josseph at Strong Hospital in Rochester, New York. The video includes an interview with the patient before and after his surgery.

Webcast Archive - *da Vinci* Prostatectomy

da Vinci Prostatectomy - Surgery for Prostate Cancer - Replay of August 10, 2006 Webcast. Performed at Waukesha Memorial Hospital, Waukesha, WI. Brian Butler, MD, ProHealth Care urologist, performed the surgery, and Jon Auger, MD, ProHealth Care urologist, moderated the event. The webcast povides viewers the opportunity to see the robotic surgery as it happened, and to hear questions of the surgeon and moderator during the live event.

Webcast Archive - *da Vinci* Prostatectomy

da Vinci Prostatectomy - Surgery for Prostate Cancer - Replay of January 19, 2006 Webcast. Performed at Thomas Jefferson University Hospital by Jefferson's Multidisciplinary Urologic Cancer Team.

***Webcast Archive - da Vinci*® Hysterectomy for Benign Disease**
Originally broadcast live from the University of Michigan Hospital, on September 20, 2006.

Minimally invasive *da Vinci* hysterectomy performed by Dr. Arnold Advincula, Associate Professor of Obstetrics and Gynecology and Director of Minimally Invasive Surgery, Division of OB/GYN at The University of Michigan Health System.

Arleen H. Song, M.D., M.P.H., Assistant Professor, Department of Obstetrics and Gynecology moderates the event to explain critical portions of the surgery and answers e-mail questions from viewers during the Webcast.

View the *da Vinci*® Hysterectomy webcast archive here

***da Vinci*® Hysterectomy for Cervical Cancer**
Review a replay of the Webcast of a *da Vinci* Hysterectomy, originally broadcast live from N.C. Women's Hospital at the University of North Carolina Hospitals, on February 22

View a replay of the *da Vinci* Hysterectomy for Cervical Cancer webcast here.

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da Vinci Surgery.

Physician Locator

Find a*da Vinci* Surgeon

Please enter your zip code and the medical specialty for the type of *da Vinci* surgeon you would like to locate.

Search For	◉ Surgeons ○ Hospitals
Specialty	Select a specialty...
Zip Code	Enter zip code
State	Or Select a state...
International	Or Select a country...

Please read: Important information about this locator

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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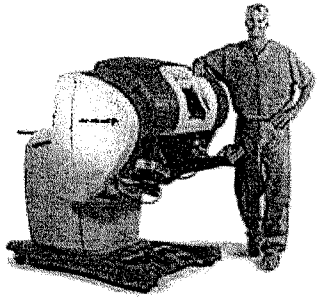
EXHIBIT 23

da Vinci Prostatectomy

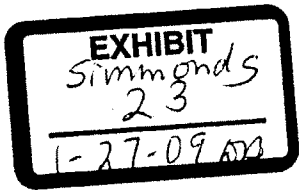


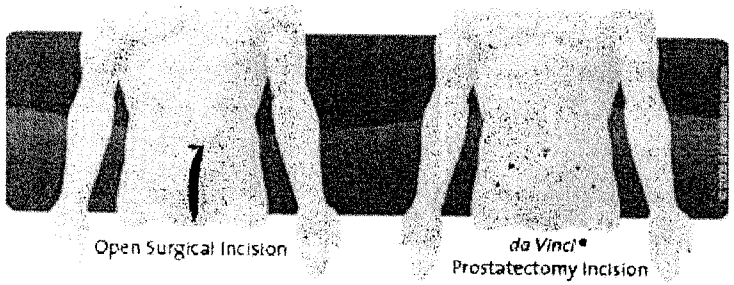
da Vinci Prostatectomy is the #1 choice for treatment of localized prostate cancer in the United States

Thanks to a breakthrough surgical technology, surgeons now widely offer a minimally invasive option for prostatectomy, the *da Vinci* Prostatectomy.

Imagine major surgery performed through the smallest of incisions. Imagine having the benefits of a definitive treatment but with the potential for significantly less pain, a shorter hospital stay, faster return to normal daily activities – as well as the potential for better clinical outcomes.

Opposition No. 91175319
Intuitive Surgical, Inc.





It is important to know that *da Vinci* Surgery does not place a robot at the controls; your surgeon is controlling every aspect of the surgery with the assistance of the *da Vinci* robotic platform.

Discover:

- The benefits of robotic-assisted surgery
- How *da Vinci* Prostatectomy compares to other treatment options
- Whether you are a candidate for *da Vinci* Surgery
- Frequently asked questions (FAQs) about robotic-assisted surgery
- Multimedia, including videos, webcasts, podcasts and online patient seminars

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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About Prostate Cancer

Prostate cancer is a disease in which malignant (cancer) cells form in the tissues of the prostate. The prostate is a gland in the male reproductive system located just below the bladder and in front of the rectum. It is about the size of a walnut and surrounds the urethra (the tube that empties urine from the bladder). The prostate gland produces fluid that is one of the components of semen.[1]

Statistics

Prostate cancer is the most common non-skin malignancy in men[2] and is responsible for more deaths than any other cancer, except for lung cancer. However, microscopic evidence of (prostate?) cancer is found at autopsy in many if not most men. The American Cancer Society (ACS) estimated that about 218,890 new cases of prostate cancer were diagnosed in the United States during 2007. About 1 man in 6 will be diagnosed with prostate cancer during his lifetime, but only 1 man in 34 will die of it. A little over 1.8 million men in the United States are survivors of prostate cancer.[3]

Prognosis & Treatment

Treatment options and prognosis depend on the stage of the cancer, the Gleason score[4], and the patient's age and general health. With greater public awareness, early detection is on the rise and mortality rates are declining. Additionally, new advances in medical technology are enabling cancer patients to return to active and productive lives after their treatment.

- Prostate Cancer Treatment Options

1. "General Information about Prostate Cancer," National Cancer Institute, www.cancer.gov.
2. "What are the Key Statistics About Prostate Cancer?," National Cancer Institute, www.cancer.gov.
3. "The Prostate Cancer Outcomes Study: Fact Sheet," National Cancer Institute, www.cancer.gov.

4. Gleason score: A system of grading prostate cancer tissue based on how it looks under a microscope. Gleason scores range from 2 to 10 and indicate how likely it is that a tumor will spread.. National Cancer Institute, http://www.cancer.gov

While clinical studies support the effectiveness of the *da Vinci* System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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Treatment Options for Prostate Cancer

Before choosing a treatment option, it is important for a patient to discuss their options with their physician based on his individual case. Upon diagnosis with prostate cancer, a man has the following primary treatment options:

- Remove the cancerous prostate (surgery)
- Radiate the cancerous prostate (external beam or radioactive seed implants)
- Watchful Waiting
- Other treatments (hormonal and cryosurgery)

In this section, you can:

- Discover which treatment options are available to you (above).
- Find out if *da Vinci* Surgery may be the right choice for you: "Should I Consider *da Vinci* Surgery?"
- See how the efficacy and safety of robotic surgery compares to other treatment approaches.

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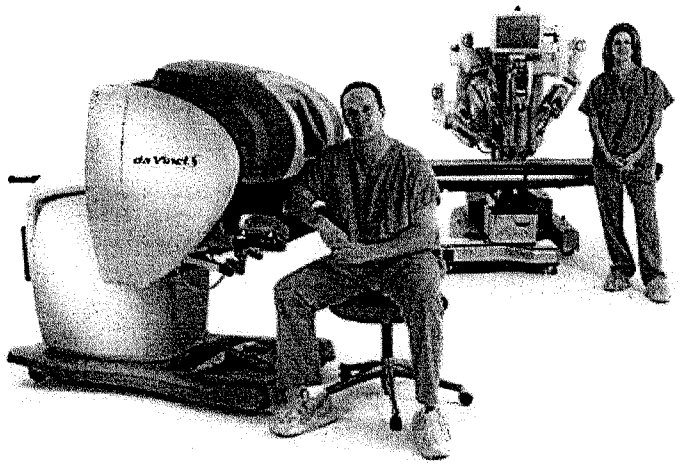
da Vinci® Surgical System

Only *da Vinci* overcomes the limitations of both traditional open surgery and conventional minimally invasive surgery.

The *da Vinci* System is a sophisticated robotic platform designed to expand the surgeon's capabilities and - for the first time - offer a minimally invasive option for major surgery.



The *da Vinci* S Surgical System

With *da Vinci* Surgery, small incisions are used to introduce miniaturized wristed instruments and a high-definition 3D camera. Seated comfortably at the *da Vinci* console, your surgeon views a magnified, high-resolution 3D image of the surgical site.

At the same time, state-of-the-art robotic and computer technologies scale, filter and seamlessly translate your surgeon's hand movements into precise micro-movements of the *da Vinci* instruments.

The *da Vinci* Surgery System cannot be programmed, nor can it make decisions on its own. It requires that every surgical maneuver be performed with direct input from your surgeon.

To learn more about the *da Vinci* Surgical System, read about *da Vinci* Features.

While clinical studies support the effectiveness of the *da Vinci* System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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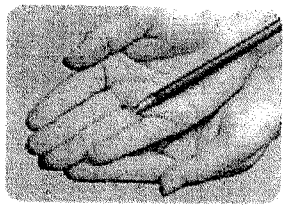
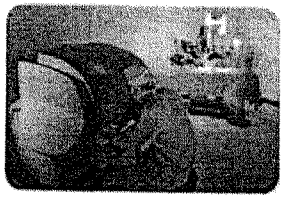
The *da Vinci*® Surgical System Features

The *da Vinci* Surgical System is the only commercially available technology that can provide the surgeon with the precision, dexterity and control of traditional open surgery, while only requiring 1-2 cm incisions.



da Vinci® *EndoWrist*® instrument

The *da Vinci* Surgical System consists of an ergonomically designed surgeon's console, a patient cart with four interactive robotic arms, a high-performance vision system and patented *EndoWrist* instruments.



da Vinci Surgeon Console and Patient Cart

At the *da Vinci* console, your surgeon operates while seated comfortably, viewing a highly magnified 3D image of the body's interior. To operate, the surgeon uses master controls that work like forceps.

As your surgeon manipulates the controls, the *da Vinci* System responds to your surgeon's input in real time, translating his or her hand, wrist and finger movements into precise movements of miniaturized instruments at the patient-side cart.

As your surgeon manipulates the controls, the *da Vinci* System responds to your surgeon's input in real time, translating his or her hand, wrist and finger movements into precise movements of miniaturized instruments at the patient-side cart.

The *da Vinci* System's patient cart holds up to three *EndoWrist* instruments and one 3D camera. To access the target anatomy, your surgeon introduces the precisely controlled *EndoWrist* instruments into the body through a series of dime-sized incisions. A broad range of instrument types are available to help your surgeon perform specialized surgical tasks with precision and control.

- System Safety

While clinical studies support the effectiveness of the *da Vinci* System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

da Vinci translates and refines your surgeon's hand movements.

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da Vinci® Surgical System Safety

When considering surgical treatment options, many patients have concerns about safety. In particular, patients question whether *da Vinci* Surgery is as safe as traditional surgery.

In fact, the *da Vinci* Surgical System has been used successfully in tens of thousands of minimally invasive procedures worldwide. In addition, the *da Vinci* System offers multiple, redundant safety features, which make the most effective, least invasive approach potentially as safe as traditional surgical methods.

First and foremost, the *da Vinci* System cannot be programmed, nor can it make decisions on its own. Instead, the *da Vinci* System requires that every surgical maneuver be performed with direct input from your surgeon.

The *da Vinci* System surgeon console

With *da Vinci* Surgery, as with traditional methods, you are under the care of at least two medical professionals: Your surgeon as well as his or her supporting team. Your surgeon requires at least one assistant at your side during surgery. This team member assists with tasks, such as switching between instruments, to provide your surgeon with the optimal *da Vinci* instrument for the procedure step being performed.

Just a few feet away, your surgeon operates using the console controls. As your surgeon maneuvers the controls, *da Vinci* scales, filters and translates his or her wrist and finger movements into precise movements of miniaturized instruments at the patient cart. Tremor reduction minimizes unintended movements, which means that *da Vinci* instruments can move in a more precise manner than a human hand.

Since the *da Vinci* System's patient cart does the work of holding and repositioning the instruments and camera - and because your surgeon operates while seated - surgeons can experience much less fatigue in performing surgery with the *da Vinci* System.

Finally, during the course of an operation, the *da Vinci* System will perform millions of safety self checks. The System is designed to be fail safe, which means that in the event of power interruption or a safety check failure, the system is designed to shut down safely, allowing the surgeon to remain in control of the procedure.

Learn More

Follow this link for additional Important Safety Information; follow this link to review an index of selected clinical abstracts that provide detail on the safety and efficacy of the *da Vinci* System.

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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Important Safety Information

The information provided on this website is not intended to be a substitute for a thorough discussion with your doctor about whether surgical treatment with the *da Vinci* Surgical System is right for you. There are risks associated with any surgical procedure and individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. If you are a patient, consult with a qualified physician familiar with the *da Vinci* Surgical System about treatment options that may be appropriate for your medical condition.

Indications for Use

The *da Vinci* Surgical System is indicated for assistance in minimally invasive urological and general laparoscopic surgical procedures; gynecologic laparoscopic surgical procedures; general non-cardiovascular thoracoscopic surgical procedures; and thoracoscopically-assisted cardiotomy. The *da Vinci* Surgical System may also be used with an auxiliary incision to perform cardiac revascularization under certain circumstances. The system is intended for use by trained physicians in an operating room environment in accordance with the representative, specific procedures set forth in its professional Instructions for Use.

Contraindications for Use

Any and all factors that would make the use of conventional minimally invasive instruments and surgical technique unadvisable also apply to the use of the *da Vinci* Surgical System. General contraindications to minimally invasive surgery may include bleeding disorders, history of prior surgery, pregnancy and significant cardio-pulmonary conditions.

Alternative Treatment Options

Although the *da Vinci* Surgical System is considered safe and effective, it may not be appropriate for every individual, as an individual's circumstances may preclude using minimally invasive techniques or suggest other treatment options. Always ask your doctor about all treatment options that may be appropriate for your medical condition, as well as their risks and benefits. If you have questions about the *da Vinci* Surgical System or a *da Vinci* procedure, consult with a qualified physician familiar with the *da Vinci* Surgical System. A list of physicians experienced with the *da Vinci* Surgical System can be found in the Surgeon Locator section.

Conversion to Non-Minimally Invasive Technique
Environmental or equipment failures may cause the *da Vinci* Surgical System to be unavailable, and may require your doctor to convert to alternative surgical techniques. Ask your doctor about the potential risk of such conversions.

Surgeon Training
The *da Vinci* Surgical System should be used only by surgeons who have developed adequate robotic skills to perform the tasks associated with each procedure and who have received specific training in the use of the *da Vinci* Surgical System. Training provided by Intuitive Surgical is limited to product education on the *da Vinci* surgical system and does not replace the necessary medical training and experience required to perform surgery.

Intuitive Surgical makes no claims as to the competency, training or licensing of the physicians listed or identified on this site. We encourage patients to investigate your surgeon's training and experience by searching the American Medical Association's (AMA) "Directory of Physicians in the U.S." and the American Board of Medical Specialties (ABMS) "Official Directory of Board Certified Medical Specialists".

Medical Advice Disclaimer
These pages are not intended to provide medical advice or physician instruction on the appropriate use of products produced or supplied by Intuitive, its affiliates, related companies, or its licensors or joint venture partners. Information provided should not be used for diagnostic or training purposes.

If you are a physician, contact Intuitive Surgical for further information on product training. Surgeons or others who are considering using robotic-assisted surgery should only do so after successfully completing required medical training and certification as well as the relevant training mandated in the professional guidelines of their own hospital, institution, or society – including training on the use of the *da Vinci* Surgical System.

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Should I Consider *da Vinci* Surgery?

Most people are candidates for *da Vinci*® Surgery, but it may not be right for everyone. Only you and your doctor can decide whether Surgery is right for you. Before making your decision, you should make sure you are aware of all the options available to you, as well as your physician's experience as a *da Vinci* surgeon.

To determine if you are a candidate for *da Vinci* Surgery, and to ensure you get the information you need from a consultation with your physician, we have put together a brief questionnaire that you can take into your doctor's appointment with you.

- Download the questionnaire
- Find a *da Vinci* Surgeon

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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What to Expect from a *da Vinci*® Procedure

Undergoing any sort of surgery can cause anxiety. Pursuing treatment with a surgical approach that is still new and unknown to many patients may further raise a number of questions. This section explains what happens before, during and after a robotic-assisted surgery using the *da Vinci*® Surgical System, and aims to dispel some of that anxiety by providing clear information on what you should expect from your procedure.

1. Initial Appointment
Many men simply go to a primary care physician for a routine check-up, only to get a call a few days later to report that something called an "elevated PSA" had shown up in their laboratory results and that further testing will need to be conducted by a urologist.

2. Laboratory Results
The exam likely consists of a standard digital rectal exam (DRE), in which the doctor manually palpates the prostate by way of the rectum. Even if the urologist detects nothing abnormal, he/she schedules a biopsy to be on the safe side. The biopsy is performed by inserting a tubular structure in the rectum, from which projectile needles collect 5-6 "cores" of tissue from each side of the prostate. Although many patients tolerate the biopsy without medication, the urologist may offer something to alleviate any discomfort and/or anxiety associated with the procedure.

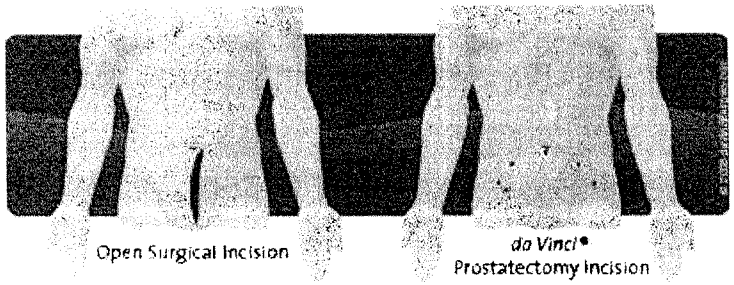
3. Treatment Options
If the patient has an early diagnosis of prostate cancer, there is usually a range of treatment options. These may include conservative management, radiation therapy with external bream or brachytherapy, cryosurgery and prostatectomy - surgical removal of the prostate. The treatment options will depend on a number of factors, including the stage of the disease, the age and health or personal preference of the patient.

- More on Treatment Options for prostate cancer

The following "What to Expect" steps are for patients having a *da Vinci*® Prostatectomy. For specific information about this procedure, please refer to the section on *da Vinci* Prostatectomy.

4. Pre-Operative
The patient will have a physical examination and discuss the various types of anesthesia with the anesthesiologist. This visit is arranged by the doctor and will likely occur the week before surgery. The evening before surgery the patient follows instructions for bowel preparation as provided by the doctor.

5. Day of Surgery
Shortly before the operation, anesthesia is administered and the patient goes to sleep for the duration of the operation, which typically lasts 2-4 hours. The procedure begins when the patient's abdomen is inflated with carbon dioxide gas, creating an operating space for the surgeon. Next, six small incisions, 1/4 to 1/2 inch in length, are made in the patient's abdomen and ports are inserted to keep the incisions open.



During the procedure, the surgeon uses the *da Vinci* System's laparoscopic surgical instruments and video camera, via the temporary ports, to direct the dissection of the prostate gland and adjacent tissue. If deemed appropriate, the surgeon tries to preserve the nerves attached to the patient's prostate gland. At the end of the surgery, the ports are removed from the patient's abdomen and the remaining incisions are closed with sutures.[3]

For detailed information about this procedure, please talk to a surgeon who performs *da Vinci* Prostatectomy.

6. Post-Operative
The patient wakes up very groggy and with a urinary catheter in place. He will likely spend one night in the hospital resting and recovering from the effects of the anesthesia. As the anesthesia wears off, there may be some discomfort, for which pain medication may be prescribed. During this time, the medical team gets the patient sitting, standing and eventually walking around, which is recommended throughout the recovery period. Because a catheter typically remains in place for approximately 7 days, the doctor will review guidelines for use that will ease discomfort and ensure proper function of the catheter during this time.

7. Recovery Period
The first week post-operatively will likely be spent resting; however, frequent walks are encouraged. Depending on the individual, regular activities may resume as soon as soon as a few days after surgery; straining and heavy lifting is discouraged for the first four weeks post-operatively. Approximately one week after surgery, a post-operative follow-up is scheduled, at which time bladder function may be assessed.

This is done by filling the bladder with saline via the catheter, removing the catheter and then allowing the patient to void naturally. Some incontinence after surgery is normal and is typically managed with medication until bladder control resumes. Erectile dysfunction may also be a side effect of surgery. Like incontinence, this side effect may be discussed with the doctor and managed with medication until it lessens or completely resolves over time.

8. Follow-Up Care

After treatment for prostate cancer, the doctor will want to watch the patient carefully, checking to see if his cancer recurs or spreads further. The doctor should also outline a follow-up plan. This plan usually includes regular doctor visits, PSA blood tests and digital rectal exams, which will likely begin within a few months of finishing treatment. Most doctors recommend PSA tests about every 6 months for the first 5 years after treatment, and at least yearly after that.[5]

- Watch testimonials from patients who have experienced *da Vinci* Surgery

3. http://www.uant.com/urologic_oncology/robotic-da-vinci-prostate-kidney.php
5. http://www.cancer.org

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Frequency Asked Questions

- What is Minimally Invasive Surgery (MIS)?
- Why do we need a new way to do minimally invasive surgery?
- What are the benefits of *da Vinci* Surgery compared with traditional methods of surgery?
- Where is the *da Vinci* Surgical System™ being used now?
- Has the *da Vinci* Surgical System been cleared by the FDA?
- Is *da Vinci* Surgery covered by insurance?
- Will the *da Vinci* Surgical System make the surgeon unnecessary?
- Is a surgeon using the *da Vinci* Surgical System operating in "virtual reality"?
- Is this telesurgery? Can you operate over long distances?
- While using the *da Vinci* Surgical System, can the surgeon feel anything inside the patient's chest or abdomen?
- What procedures have been performed using the *da Vinci* Surgical System? What additional procedures are possible?
- Why is it called the *da Vinci* Surgical System?
- Am I A Candidate For *da Vinci* Surgery?

Q. What is Minimally Invasive Surgery (MIS)?
A. MIS is surgery typically performed through small incisions, or operating ports, rather than large incisions. This can potentially result in shorter recovery times, fewer complications, reduced hospitalization costs and reduced trauma to the patient. While MIS has become standard-of-care for particular surgical procedures, it has not been widely adopted for more complex or delicate procedures - for example, prostatectomy and mitral valve repair.

Intuitive Surgical believes that surgeons have been slow to adopt MIS for complex procedures because they generally find that fine-tissue manipulation – such as dissecting and suturing – is more difficult than in open surgery. Intuitive Surgical's technology, however, enables the use of MIS techniques for complex procedures.

Q. Why do we need a new way to do minimally invasive surgery?
A. Despite the widespread use of minimally invasive or laparoscopic surgery in today's hospitals, adoption of laparoscopic techniques, for the most part, has been limited to a few routine procedures. This is due mostly to the limited capabilities of traditional laparoscopic technology, including standard video and rigid instruments, which surgeons must rely on to operate through small incisions.

In traditional open surgery, the physician makes a long incision and then widens it to access the anatomy. In traditional minimally invasive surgery - which is widely used for routine procedures - the surgeon operates using rigid, hand-operated instruments, which are passed through small incisions and views the anatomy on a standard video monitor. Neither this laparoscopic instrumentation nor the video monitor can provide the surgeon with the excellent visualization needed to perform complex surgery like mitral valve repair or nerve-sparing prostatectomy.

Q. What are the benefits of *da Vinci* Surgery compared with traditional methods of surgery?
A. Some of the major benefits experienced by surgeons using the *da Vinci* Surgical System over traditional approaches have been greater surgical precision, increased range of motion, improved dexterity, enhanced visualization and improved access. Benefits experienced by patients may include a shorter hospital stay, less pain, less risk of infection, less blood loss, fewer transfusions, less scarring, faster recovery and a quicker return to normal daily activities. None of these benefits can be guaranteed, as surgery is necessarily both patient- and procedure-specific.

Q: Where is the *da Vinci* Surgical System being used now?
A. Currently, The *da Vinci* Surgical System is being used in hundreds of locations worldwide, in major centers in the United States, Austria, Belgium, Canada, Denmark, France, Germany, Italy, India, Japan, the Netherlands, Romania, Saudi Arabia, Singapore, Sweden, Switzerland, United Kingdom, Australia and Turkey.

Q. Has the *da Vinci* Surgical System been cleared by the FDA?
A. The U.S. Food and Drug Administration (FDA) has cleared the *da Vinci* Surgical System for a wide range of procedures. Please see the FDA Clearance page for specific clearances and representative uses.

Q: Is *da Vinci* Surgery covered by insurance?
A. *da Vinci* Surgery is categorized as robot-assisted minimally invasive surgery, so any insurance that covers minimally invasive surgery generally covers *da Vinci* Surgery. This is true for widely held insurance plans like Medicare. It is important to note that your coverage will depend on your plan and benefits package. For specifics regarding reimbursement for *da Vinci* Surgery, or if you have been denied coverage, please call the Reimbursement Hotline at 1-888-868-4647 ext. 3128. From outside the United States, please call 33-1-39-04-26-90.

Q. Will the *da Vinci* Surgical System make the surgeon unnecessary?
A. On the contrary, the *da Vinci* System enables surgeons to be more precise, advancing their technique and enhancing their capability in performing complex minimally invasive surgery. The system replicates the surgeon's movements in real time. It cannot be programmed, nor can it make decisions on its own to move in any way or perform any type of surgical maneuver without the surgeon's input.

Q. Is a surgeon using the *da Vinci* Surgical System operating in "virtual reality"?
A. Although seated at a console a few feet away from the patient, the surgeon views an actual image of the surgical field while operating in real-time, through tiny incisions, using miniaturized, wristed instruments. At no time does the surgeon see a virtual image or program/command the system to perform any maneuver on its own/outside of the surgeon's direct, real-time control.

Q. Is this telesurgery? Can you operate over long distances?
A. The *da Vinci* Surgical System can theoretically be used to operate over long distances. This capability, however, is not the primary focus of the company and thus is not available with the current *da Vinci* Surgical

System.

Q. While using the *da Vinci* Surgical System, can the surgeon feel anything inside the patient's chest or abdomen?
A. The system relays some force feedback sensations from the operative field back to the surgeon throughout the procedure. This force feedback provides a substitute for tactile sensation and is augmented by the enhanced vision provided by the high-resolution 3D view.

Q: What procedures have been performed using the *da Vinci* Surgical System? What additional procedures are possible?
A. The *da Vinci* System is a robotic surgical platform designed to enable complex procedures of all types to be performed through 1-2 cm incisions or operating "ports." To date, tens of thousands of procedures including general, urologic, gynecologic, thoracoscopic, and thoracoscopically-assisted cardiotomy procedures have been performed using the *da Vinci* Surgical System.

Q. Why is it called the *da Vinci* Surgical System?
A. The product is called "*da Vinci*" in part because Leonardo *da Vinci* invented the first robot. He also used unparalleled anatomical accuracy and three-dimensional details to bring his masterpieces to life. The *da Vinci* Surgical System similarly provides physicians with such enhanced detail and precision that the System can simulate an open surgical environment while allowing operation through tiny incisions.

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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Clinical Evidence

The science is clear: *da Vinci* Prostatectomy is the #1 choice for treatment of localized prostate cancer in the United States.

In this section, you will find out why.

da Vinci Prostatectomy has been practiced by many surgeons all over the world. The experiences and results of these surgeons have been widely published in peer-reviewed scientific literature.

You can review clinical articles that support the clinical efficacy of *da Vinci* Surgery, as well as view side-by-side comparisons of *da Vinci* Surgery versus other treatment options.

- Prostatectomy Studies
- Robotic-Assisted Surgery Studies
- Treatment Comparison

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da Vinci Prostatectomy is the #1 choice for treatment of localized prostate cancer* in the United States, and is rapidly being chosen by more men, as well as their doctors, worldwide. *da Vinci* Prostatectomy is a minimally invasive, robotic-assisted surgical procedure that removes the cancerous prostate gland and related structures.

The potential benefits of the *da Vinci* Prostatectomy are:

Effective Cancer Control:
Studies have shown that experienced surgeons have achieved excellent results in removing prostate cancer without leaving cancer cells behind.

Improved and Early Return of Sexual Function:
Studies have shown that most patients have a rapid return of sexual function.

Improved and Early Return of Continence:
Studies have shown that most patients have a rapid return of urinary continence.

Improved Results Over Traditional Treatments:
Patients may benefit from surgical treatment of localized prostate cancer, the established gold standard, as compared to radiation. Surgery has a higher and longer survival rate than radiation or other treatments. Surgery also has a lower risk of long-term complications than radiation treatments.

Minimally Invasive Surgery:
The *da Vinci* System enables surgeons to perform even the most complex and delicate procedures through very small incisions with unmatched precision.

Additional patient benefits may include:

- Significantly less pain
- Less blood loss
- Less scarring
- Shorter recovery time
- A faster return to normal daily activities

This website is designed to help patients make informed choices about their prostate cancer treatment and understand the *da Vinci* Prostatectomy procedure. You can use this site to:

- Learn more about prostate cancer and *da Vinci* Prostatectomy
- Review clinical data on outcomes
- Hear from actual patients and surgeons
- Compare *da Vinci* Prostatectomy with other possible treatment options
- Find experienced *da Vinci* surgeons near you

** Claim based on 2007 data on file.*

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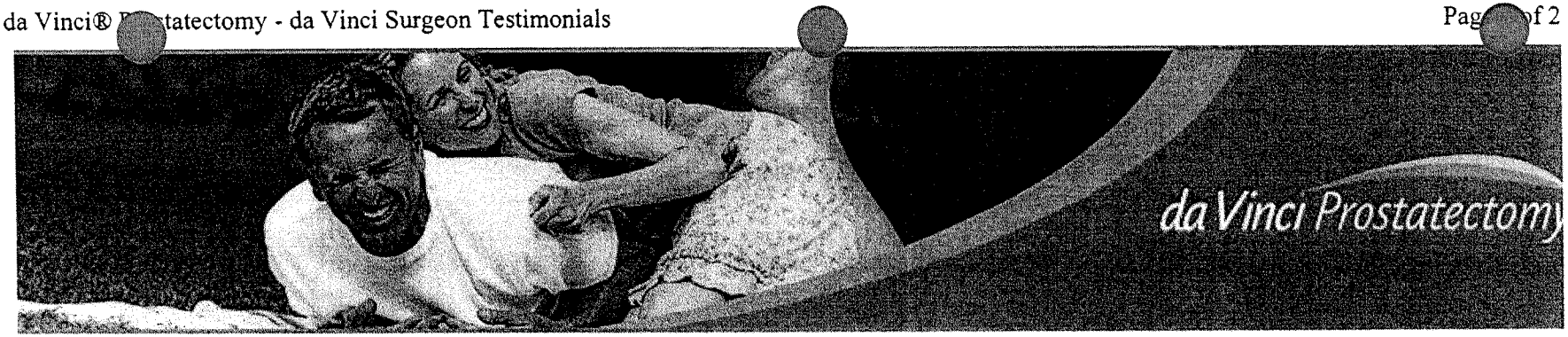


Meet *da Vinci*® Surgeons

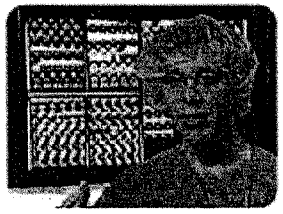
da Vinci Prostatectomy vs. Brachytherapy (Radiation)

Dr. James Porter, MD & Three Patients

"Not only do I treat patients using *da Vinci* Prostatectomy... I was diagnosed with prostate cancer. When I looked at what I had been doing, at the outcomes of my patients, it was a no-brainer... I knew that I would go forward with the *da Vinci* Prostatectomy."

Watch the stories of Dr. Porter - *da Vinci* physician *and* patient – and his prostatectomy patients:

Watch the video



Dr. Mark Talamini on the advantages that *da Vinci's* 3D visualization and wristed instruments bring to the surgeon.

Mark Talamini, M.D., F.A.C.S
Professor of Surgery
Chairman, Dept. of Surgery
University of CA, San Diego

Watch the video

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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Meet *da Vinci*® Patients

da Vinci Prostatectomy vs. Brachytherapy (Radiation)

Dr. James Porter, MD & Three Patients

"Not only do I treat patients using *da Vinci* Prostatectomy... I was diagnosed with prostate cancer. When I looked at what I had been doing, at the outcomes of my patients, it was a no-brainer... I knew that I would go forward with the *da Vinci* Prostatectomy."

Watch the stories of Dr. Porter - *da Vinci* physician *and* patient – and his prostatectomy patients:

Watch the video

View the data on *da Vinci* Prostatectomy vs. Brachytherapy >>

"I looked into surgery, I looked into radiation and the seeds ... and I looked into *da Vinci.* I was up walking around that night and got out of the hospital. All the functions, *and the*

very important function - thank you, doctor - were still working."

- Fred Smerlas, Former NFL Player
- *da Vinci* Prostatectomy

Watch Video

"A little over two and a half years ago I was diagnosed with prostate cancer..."

- Dennis Murray, High School Superintendent, Perris, California
- *da Vinci* Prostatectomy

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"I liked the idea of a more rapid recovery time and the reduced invasiveness compared to open surgery..."

- John Austin
- *da Vinci* Prostatectomy

Watch Video

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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da Vinci Procedure Multimedia

***da Vinci* Prostatectomy**

Watch video

***da Vinci* Surgical System**

Watch video

In this section of daVinciProstatectomy.com, you can get a rich-media view of how *da Vinci* Surgery works and what your experience with it may be like.

Just follow the links below to discover more.

- *da Vinci* Surgery Videos
- Live Surgery Webcasts
- Patient Education Seminars
- Prostate Cancer Podcasts

While clinical studies support the effectiveness of the *da Vinci* System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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Media Coverage

REUTERS	WITNESS: A prostate cancer patient trusts in a robot Jan. 30, 2008
Roboticoncology.com	Is There Sex After Prostate Surgery? Yes - If You Choose the Right Procedure Dec. 14, 2005
Newsweek	Cutting Edge By Jennifer Barrett Dec. 12, 2005
ScienceDaily	Quick, Innovative Procedure Helps Men Minimize Incontinence After Prostatectomy May 12, 2007
BusinessWeek	The Robot Is In – And Ready To Operate By Carol Marie Cropper March 14, 2005
Forbes	Going Under The Da Vinci by Steve Kitchen July 27, 2005
	Trust Me, I'm a Robot: Medical robots

CNN	set to transform our hospitals April 26, 2006 'Robots helped treat my prostate cancer' December 4, 2005 Cancer specialist confronts cancer: Doctor sold on steadiness of robotic hands for surgery May 11, 2005
M.D. NEWS	Improving the Experience of Prostate Cancer Surgery: Robotic Prostatectomy at Wake Forest University Baptist Medical Center

Find more of the latest *da Vinci* Surgery news:

Google News	*da Vinci* Surgery Robotic Surgery

While clinical studies support the effectiveness of the *da Vinci* System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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Is There Sex After Surgery?
Yes - If You Choose the Right Procedure

Roboticoncology.com NEW YORK, Dec. 14 /PRNewswire/ -- Men who opted for robotic laparoscopic prostatectomies are finding that not only are they cancer free, but they are able to resume normal lifestyles with total control over their sexual functions and bladder. Men who opted for the traditional open prostate surgery, may also be cancer free, but they are rendered impotent and incontinent -- both of which may never be reversed. These side effects are devastating to patients dealing with prostate cancer, and have unfortunately led to failed marriages, relationships and depression.

Only a handful of surgeons across the country offer expertise in this relatively new, minimally invasive procedure, and one of the most experienced is Dr. David Samadi, director of Robotic Laparoscopic Surgery at Columbia Presbyterian Medical Center in New York City. A urologic surgeon trained in both oncology and laparoscopy, Dr. Samadi has performed some 300 prostate removals over the past four years using robotic laparoscopy, with a success rate that could not be more positive.

According to Dr. Samadi, "Unlike open surgery, the laparoscopic prostate surgery involves just five small "keyhole" incisions in the patient's abdomen, through which extremely fine instruments are inserted, along with a miniscule camera that displays magnified two-dimensional images from inside the body on a screen. The addition of a sophisticated robotic-control system -- called the da Vinci -- transforms those images into three dimensions, and enables the surgeon's hand movements to be scaled, filtered, and translated into incredibly precise movements of the surgical instruments. The result is greater precision in both cutting and suturing, less trauma to surrounding tissue, and minimal blood loss."

Instead of two to three days of hospitalization and two months of recuperation typical with open prostate surgery, laparoscopic surgery patients often go home the next day and are back to normal activities within two weeks.

Dr. Samadi's experience in robotic laparoscopic prostatectomy has earned him a growing list of grateful patients, as well as the ability to perform surgeries that continue to break new ground. For example, he recently successfully completed a prostate surgery on an ambulatory basis, with the patient able to go home just seven hours after the procedure. For more information log on to: http://www.drdavidsamadi.com or http://www.roboticoncology.com.

Contact: Cathy Callegari - 212 579 1370 or callpr@aol.com

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The Robot Is In - And Ready To Operate

By Carol Marie Cropper - BusinessWeek March 14, 2005

BusinessWeek More and more surgeries -- from prostate to heart -- are being performed by doctors remotely guiding robotic arms You won't see R2D2 wielding a scalpel, but robots are increasingly appearing alongside surgeons and nurses in operating rooms. At a cost of $1.3 million each, a robotic system developed for the military and sold to private industry is helping doctors take out cancerous prostate glands, repair ailing hearts, even perform gastric bypass to help obese patients lose weight.

In such procedures, the surgeon's hands never enter the patient. After the initial incisions are made, robotic arms wielding a tiny camera and surgical tools make the snips, stanch the blood flow, and sew up inside when all is done. The surgeon sits at a console -- usually in the operating room, although the technology would allow a doctor to operate on a patient on the other side of the world -- peering into binocular-like lenses at views provided by the camera inside the patient. The doctor guides the robot's work by twisting his wrists in stirrup-like handles, moving his thumb and forefinger in scissor-like loops, or tapping foot pedals to focus the camera or move a robotic arm.

The most common robotic surgery is prostatectomy, or the removal of the prostate gland located just below the bladder in men. But surgeons also use the system, called the da Vinci by its maker, Intuitive Surgical (ISRG) of Sunnyvale, Calif., for everything from heart surgery to gynecological and infertility operations. Its use has grown from just 1,500 procedures in 2000 to an estimated 20,000 last year.

Doctors who perform such surgery say they can see better because the smaller incisions mean less blood and the robot magnifies what's shown. They also say the robotic computer's ability to filter out routine hand tremors

and scale down movements when tinier cuts are needed means more precision. Apart from smaller incisions and less blood loss, benefits for patients include less pain and shorter recovery times.

An older form of minimally invasive surgery, laparoscopy, also uses miniature surgical instruments inserted through small incisions -- although guided directly via long handles in the surgeon's hands -- and comes with some of the same advantages. But that method provides a two-dimensional view rather than the robotic system's 3-D vision and is harder for newcomers to master, says Dr. Vipul Patel, a Birmingham (Ala.) surgeon and a leader in robotic prostatectomies. Also, with laparoscopy, there's no computer to adjust the size of the surgeon's hand movements or screen out tremors.

QUICKIE RECOVERIES

Robotic technology doesn't come cheap, which is one reason it's in fewer than 300 hospitals worldwide. But while it might add, say, $1,000 to the surgical cost of a prostatectomy, and $4,000 to a heart mitral valve operation, total costs of around $24,000 (for a prostatectomy) and $30,000 to $40,000 (for the heart procedure) remain about the same because of savings from shorter hospital stays and less pain medication, according to surgeons who use the robot.

More than 8,000 prostate glands were removed robotically last year, up from 36 in 2000. The procedure accounted for more than 10% of the 75,000 prostatectomies done in 2004, says Intuitive Surgical. Surgeons who remove prostates robotically say the method has advantages. Undergoing open surgery may require a transfusion -- which brings a risk, though smaller than in the past, of blood-borne communicable diseases such as HIV. Busy professionals like the fact that they can be out of the hospital in a day, vs. two or three for open surgery, and resume normal activities in one week rather than six.

Cutting nerves around the prostate can lead to incontinence or impotence, so precision is important. Between 25% and 60% of conventional prostatectomy patients suffer from postoperative impotence, says Dr. Patel. Small studies of robotic surgery have shown at least a short-term benefit in terms of impotence and incontinence, says Dr. Kevin R. Loughlin, a professor of surgery at Harvard Medical School. But, he says, the evidence remains inconclusive.

Dr. Lothaire Bluth, of Gilbert, Ariz., opted for robotics when he had his prostate removed in 2003. He had heard about incontinence and impotence after prostate removal. A surgeon himself -- albeit one who operates on eyes -- he knew how to research the options. Bluth called hospitals and scoured the Internet. In the end, he traveled to the University of California at Irvine Medical Center to have his prostate taken out by a robot. Bluth now has four barely visible half- to 1-inch scars rather than a 6- to 8-inch one. And, he says, neither incontinence nor impotence is a problem.

Meanwhile, heart surgeons are using robotic technology to repair valves and bypass arteries without opening rib cages. A patient winds up with three or four half-inch incisions instead of a sawed sternum and an 8- to 10-inch gash. That translates into less pain, blood loss, and trauma, says Dr. Michael Argenziano, director of robotic cardiac surgery at New York Presbyterian Hospital-Columbia University Medical Center. Hospital stays drop from five to seven days to two or three, and time away from work is cut from two months to about one, he says.

Not every patient is a candidate. Complicated cases -- when the patient is very sick, needs multiple procedures, or has had previous chest surgery -- are not suited to robotics, Argenziano says. Nor can a heart transplant or artificial heart implant be done this way.

Naysayers point out that a robotic operation done by a novice can take twice as long as open surgery. (Experts say between 20 and 50 operations are needed to become proficient.). If the unexpected happens, the patient may wind up being opened anyway. Then there's the fact that while the robotic camera may let the surgeon see better, he never feels the tissue he is cutting, which can be helpful in determining how far a cancer has spread.

So patients who want robotics' smaller scars and quicker recovery times will need to ask hard questions. Find out how many times the procedure you need has been done robotically and what the advantages and disadvantages are. Just as important, ask how many robotic surgeries the doctor who will do yours has performed. In real life, you want the force of experience to be with you.

By Carol Marie Cropper

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Trust me, I'm a robot

Medical robots set to transform our hospitals

Wednesday, April 26, 2006; Posted: 6:57 a.m. EDT (10:57 GMT)

(CNN) -- "Ultimately technology could allow even a monkey to do an operation -- the learning curve is getting shorter, the possibility of mishaps is getting smaller," says Dr. Ara Darzi of St. Mary's Hospital in London. "These [robotic] systems won't allow you to do the wrong thing."

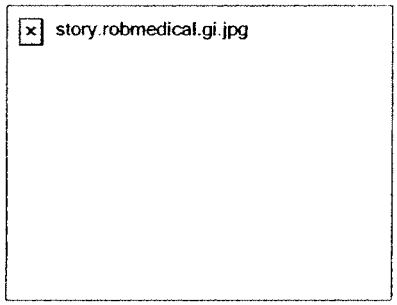
Surgery in the future will look very different. Where now there may be up to a dozen medical professionals present in the operating theater, soon there may be only two or three, with robots having taken over many of the jobs done by nurses and support staff. Even the surgeon may be elsewhere.

"It's easy to imagine a future where, if I need a medical specialist from afar [a robot] could remotely become his or her 'eyes, hands, and ears,'" says Joanne Pransky, an expert on robot psychiatry.

The first medical robots are already being used in hospitals now -- the da Vinci Surgical System was approved for use by the U.S. government in 2000, and more will follow.

Man and machine

As yet these systems are not autonomous, and they still require human input. When surgery is performed, small instruments



Robots already allow doctors to make ward visits by remote control.

> **"Most of us would rather be attended to in a hospital by a robot than be ignored."**
> *-- Joanne Pransky*

QUICKVOTE

Will humanity be eclipsed by its own technology?

Yes
No

VOTE or View Results

YOUR COMMENTS

and viewing equipment are inserted through tiny holes in the body minimizing the trauma and damage associated with open surgery. Conventional surgical tools are replaced with robotic instruments under direct control of the surgeon through "teleoperation."

"These robots work on on the 'master slave' concept, with the surgeon as the master," says Dr. Ara Darzi. "[the da Vinci system] has three arms, and you can add a fourth, with 3D stereo imagery available during surgery. It also has a motion scaling concept, which can be scaled down to five-to-one, so you can be much more precise than a human hand could. The surgeon feels very similar sensations to if he or she was working with their hands."

The robots act as an extension of a practitioner's skills, which allows them to perform better by helping improve control and precision. Already robots are being used to position endoscopes, and even perform gall bladder surgery. The hope is that soon they will be able to perform major operations such as heart surgery, perhaps using nanotech tools – microscopic robots – that would make the need to crack open a patient's chest a thing of the past.

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"Professor Yane is working on a system that can track the eyes of surgeons using an infra red laser to capture the reflection back from the eye," says Dr. Ara Darzi. "If you track both eyes, you can see the fixation point, and that gives you depth perception and means, for example, you can use the instrument to allow 'conceptual docking' and get a larascope to move at the same rhythm as the beating heart, which will give you a static image of the heart to work on."

Robots will also help surgeons cope with the exhaustion of long procedures, and the da Vinci system's mechanics have been programmed to compensate for the hand tremors tired surgeons sometimes suffer from.

Nurse robot

But robots will not just be confined to the operating theatre. Not only are the training potentials huge – and virtual reality will revolutionize the way students learn by removing the need to practice on animals or humans – there will also be major applications in the wards.

"Due to the nursing labor shortage today combined with the ever-increasing aging population, robots could easily fill the lack of human assistance and facilities currently available," says Pransky.

"Most of us would rather be attended to in a hospital by a robot than be ignored, and given the choice to stay in our own homes with a nursebot or go to a nursing home, a robot would allow us to continue to live independently as well as offer a more cost-effective alternative."

"We are working on robots that can be used within the ward environment, the RP6 and RP7 mobile robots," says Dr. Ara Darzi. "These allow a doctor to use a robot to do a walk around the wards by remote control. If I was in the U.S., for example, I could use

my hotel's high-bandwidth connection to be beside the beds of the patients I'd been with the day before in London.

"The patients love it -- it really enhances communication. You can talk to them and see their details, all remotely.

"One very important side benefit could be in preventing cross-infection. At the moment if a nurse is measuring a patient's pulse or heart every fifteen minutes, not only does it disturb them, but this is when most of the problems of cross-infection happen with diseases like MRSA. But these robot systems allows a no-touch situation."

The human touch

But despite their potential it is unlikely that robots will ever replace the need for a caring human presence.

"What we'll have is a robotic assistant for the nurse, which cleans out the bed pan, and maybe gives you the injection, and helps the nurse lift you out of bed on to the operating trolley," says Ian Pearson, BT's Futurist-in-Residence and CNN Future Summit Nominating Committee member.

"But the core job a nurse does is to provide you with care, it's a caring job, it's an interpersonal job that has to be done by a human being, and there's always going to be some premium on having that human contact.

"If R2D2 trundles over and talks to me when I'm dying of cancer in a hospital bed in 2020, and says 'It's alright Mr. Pearson, don't worry, your mortgage is taken care of,' it won't have any impact on me at all. If a nice cuddly nurse comes over and hugs me, makes me feel happy again, that's something that only a human being can do. It's a species thing. It's nothing to do with intelligence or mechanical skill, or exactly what pressure the hug was, it's nothing like that. It's the fact that it's a human being giving you human contact. And that's something that only humans can do."

Hospitals advocating robot surgery will also have to overcome some barriers with patients. "Robotic-assisted surgery does make people apprehensive," says Dr. Ara Darzi. "But it's only a sophisticated tool and you have to explain that the procedures are less-invasive and more accurate than current systems."

"I don't think we're getting to a stage with fully automated surgery, but who knows? A few years ago pilots were kings of the sky but now computers do many aspects of flying planes. We'll just have to wait and see."

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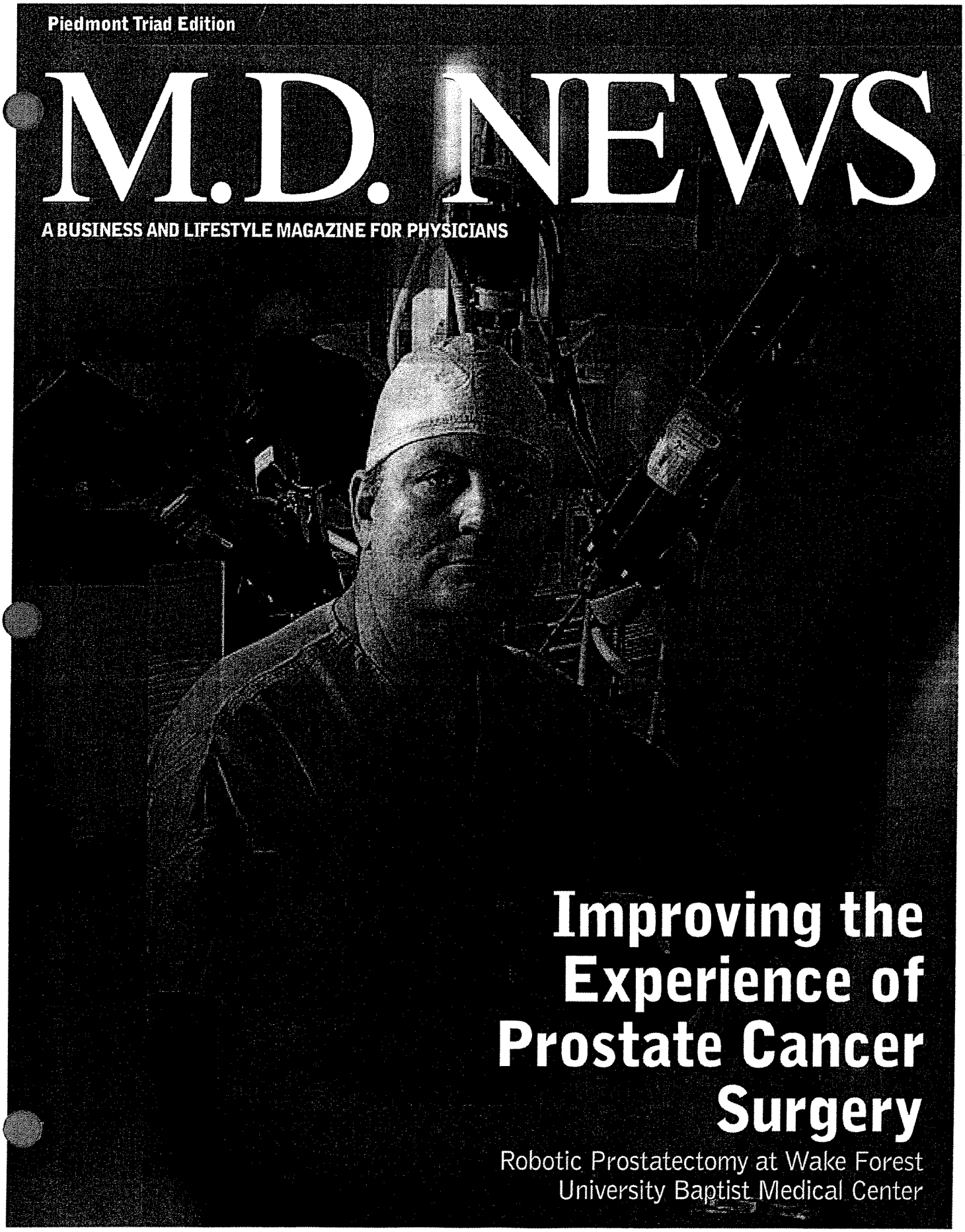


Improving the Experience of Prostate Cancer Surgery

Robotic Prostatectomy at Wake Forest University Baptist Medical Center

Improving the Experience of Prostate Cancer Surgery

Robotic Prostatectomy at Wake Forest University Baptist Medical Center

Traditional laparoscopic instruments are straight and do not bend. EndoWrist Instruments move like a human wrist, allowing increased dexterity, maneuverability and precision.

According to the American Cancer Society, prostate cancer continues to be the most common form of cancer found in men in the United States. In fact, prostate cancer alone accounts for one-third of all cancers diagnosed in men, with approximately 180,000 new cases each year. The second leading cause of cancer death after lung cancer — one of six men in the U.S. will be diagnosed with this disease during their lifetime.

Largely as a result of greater awareness, one bit of good news is that over the past 10 years patients are clearly being diagnosed earlier. Because of this, most men with newly diagnosed prostate cancer are candidates for treatment that can cure their disease. Furthermore, although the reasons are not completely understood, over the past 10 years there has also been a striking decline in the death rate from prostate cancer in this country. These facts, coupled with new treatment options, provide promise for patients facing this disease in terms of positive outcomes and improved quality of life.

"Surgery has been a treatment of choice for many years, and prior to the development of new technology and techniques, open prostatectomy was the norm," said M. Craig Hall, M.D., professor of Urology and head of Urologic Oncology at Wake Forest University Baptist Medical Center.

At Wake Forest Baptist, a new, advanced and minimally invasive laparoscopic procedure offers patients an alternative to traditional radical prostatectomy. Termed robotic-assisted laparoscopic prostatectomy, the technique incorporates the use of the da Vinci™ Surgical Robot to perform the procedure in a less invasive, but equally effective manner — with many advantages for the patient.

Since the system was installed more than a year ago, Hall has performed this surgery on numerous patients with successful outcomes.

"This is an excellent option that has been well received by our patients and faculty," said Hall. "This new alternative is one that every patient with the diagnosis of prostate cancer who is interested in surgical treatment should consider."

UNDERSTANDING THE SURGERY OPTIONS

Prostatectomy is performed largely through three different techniques. The open surgical approaches include retropubic (through an incision in the abdomen) and perineal (through a surgical incision between the scrotum and anus). The minimally invasive robotic approach is performed through several (usually 5) "ports" created in the lower abdomen. These ports are between 5 and 10 mm in diameter, and allow the placement of a camera and laparoscopic instruments to carry out the surgery. No incision is made.

Advantages of the Robotic-Assisted Prostatectomy

- Better visualization of the internal structures, which leads to a more efficient surgery — and a more precise surgery
- Magnified view helps the surgeon avoid damaging the delicate structures and nerves surrounding the prostate
- Dramatic reduction in blood loss
- Small incisions result in a shorter hospital stay and faster recovery
- Length of time the catheter is left in the body is reduced
- Less pain
- Less risk of infection
- Less scarring
- Quicker return to normal activities

The actual procedure with the robotic approach is very similar to that done in a standard open fashion. The prostate, seminal vesicles and surrounding lymph nodes are removed and sent to pathology post-surgery to determine if the cancer has spread beyond the prostate gland. The potential complications of prostatectomy can include permanent impotence and/or urinary incontinence. Because of advances in surgical techniques, these consequences are not as common as they used to be. However, all men who have had their prostate removed will not produce semen and thus, will have dry orgasms.

UNDERSTANDING ROBOTIC PROSTATECTOMY

The da Vinci Surgical Robot offers the surgeon sophisticated tools to perform complex laparoscopic surgery. While the robot doesn't perform the surgery, the surgeon uses the robot to increase precision.

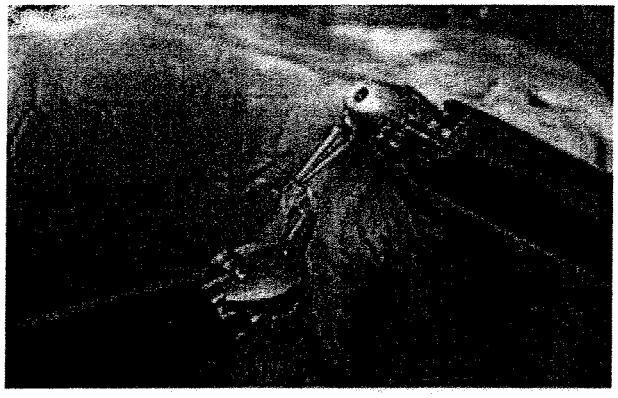
The surgeon commands three robotic arms from a console stationed only feet from the patient. The surgeon's feet work pedals and his hands direct the robot to cut and stitch with all the dexterity of a surgeon's hands — without the normal human tremors.

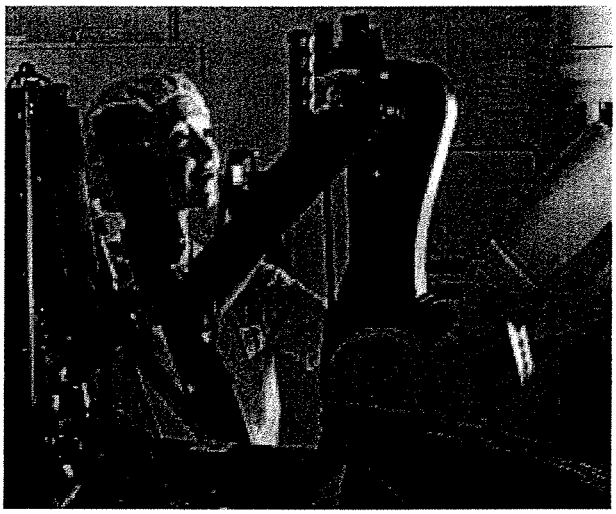
For the surgeon, there are a number of advantages — the 3-D camera system provides a magnified close-up view for better visualization of the internal structures, which leads to more efficient and precise surgery.

The surgeon removes the prostate, nearby lymph nodes, seminal vesicles and adjacent tissue through the small laparoscopic ports and then closes the ports with a few stitches.

The magnified view also helps the surgeon avoid damaging the delicate structures and nerves surrounding the prostate — "nerve-sparing surgery" — which increases the chances of the patient regaining erectile function and continence after surgery.

The surgeon's hands are placed in special devices that direct the instrument movement.





Surgical nurse Amanda Smith loads a daVinci endoWrist needle driver. EndoWristed instruments provide the surgeon the ability to suture, dissect, cut and coagulate tissue with unparalleled dexterity and precision in an 8 mm instrument.

ADVANTAGES OF ROBOTIC PROSTATECTOMY

In a recent study published by investigators from the Vattikuti Urology Institute (at Henry Ford Health System in Detroit), the robot-assisted prostatectomy proved to have a number of advantages over traditional open radical prostatectomy. They found that the robot-assisted procedure was safer, less bloody and required shorter hospitalization and catheterization. In addition, and most importantly, the median time to return to sexual intercourse was 340 days after robotic prostatectomy. Only one-half of patients undergoing traditional open prostatectomy were able to resume intercourse by two years.

With the da Vinci Surgical Robot system, physicians have achieved similar, if not better, outcomes in several areas through the minimally invasive surgical approach.

The small incisions result in a shorter hospital stay and faster recovery. There is a definite reduction in the loss of blood — an average of 150 cc per case with the robotic approach, compared to 500 to 700 cc per case with traditional surgery. "Our early experience has also shown that patients recover their urinary control more quickly following the robotic approach," said Hall. "Most patients report surprisingly good control within a week of catheter removal. We continue to take out the catheter one week following surgery, which also provides a good time to sit down with the patient and go over the final pathologic report and outline a plan for further follow-up.

"These advantages allow patients to return to their normal functional daily activities more rapidly, offering less discomfort and improved quality of life — which is always our goal," said Hall. "We are also hopeful that this technology will result in improvements in recovery of sexual function, but it is too premature to make any conclusions regarding this issue yet."

FROM THE PATIENTS' PERSPECTIVE

"The robotic prostatectomy has been all I hoped for and more," said John Lamb, a busy general manager in turnarounds and start-up companies, who came to Wake Forest Baptist from Asheboro, NC.

A 63-year-old in very good health, who has been diligent in receiving regular health check-ups, Lamb was not overly concerned when a PSA reading two years ago was higher than normal. He underwent a biopsy which proved negative, and continued with semiannual follow-ups to check on his status. A biopsy in mid-2004 came back positive.

The surgical team includes: (left to right) Amanda Hughes, R.N.; surgical coordinator Shella Kidd, R.N.; surgeon M. Craig Hall, M.D.; and chief resident Dennis Kubinski, M.D.

That's when he decided it was time to take action. "I explored several options of where to receive my care, and came to see Dr. Craig Hall at Wake Forest Baptist last December," said Lamb.

They evaluated the various surgical options, comparing both radical prostatectomy and the minimally invasive robotic-assisted laparoscopic approach.

"The minimally invasive technique seemed a little less intrusive and offered some advantages over radical prostatectomy," Lamb added.

He underwent surgery on a Monday in February, went home on Wednesday and had the surgical staples and catheter removed the following week.

"This whole process went a lot better than I thought it would and my prognosis looks real good," said Lamb. "I'm very impressed with everyone I've dealt with — the entire staff was compassionate, responsive and capable. I'd strongly recommend this option to anyone considering prostatectomy."

For Kenneth Payne, a 49-year-old African-American who works as a custodian for the Winston-Salem school system, the diagnosis of prostate cancer came as a complete surprise.

"Like most men, and particularly African-American men, I rarely went to the doctor unless I had to. Part of it is cultural, and honestly, part of it is fear," said Payne.

"But I heard about a free prostate cancer screening at the Downtown Health Plaza and for some reason, perhaps a sign from God, I decided to go. The result? The doctors found cancer — on a scale of 1 – 10 (with 10 being the worst), mine was a 9!"

"Dr. Hall fully explained the differences between radical prostatectomy and the new robotic surgery. I chose the robotic surgery because it seemed like it would be easier and I'd be back on my feet faster," said Payne.

Payne had the surgery in January and was back to work by mid-March. "I'm very pleased," he said. "It didn't leave any scar — you can't even see where they made the incisions — and I recuperated faster, because I wasn't cut as much.

"When I went back for my visit after surgery the test results were so great that the doctors told me I should frame my report — the cancer is totally wiped out!

"I would encourage every man, especially African-American men, to go ahead and be screened so they can be a survivor like me. I am blessed that my cancer was found at a stage when it was curable — if I hadn't had that free screening I might never have had the cancer detected until it was too late. To all men — stay informed and take charge of your health — it can mean the difference between life and death."

THE FUTURE LOOKS BRIGHT

"As a physician, it is always gratifying when we can offer our patients technology that has excellent outcomes, and which also provides added advantages over traditional surgery," said Hall. "The daVinci Surgical Robot has proved to be one of those advanced technologies that offer great promise for the future. It has been well-received by both patients and our staff. I envision this may become the surgery of choice for prostatectomy in the years ahead."

For more information on treatment of prostate cancer, or to refer a patient, call the Physician Access Line (PAL) at (336) 716-7654, or visit our Web site at: www.wfubmc.edu/cancer. For more information on the daVinci Surgical Robot go to: www.davinciprostatectomy.com. ■

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Cutting Edge - Newsweek Article on da Vinci Prostatectomy

Medical progress is measured in many ways. As robotic surgery comes of age, Katrina's victims struggle to find the most basic care. A look ahead.

By Jennifer Barrett
Newsweek
Updated: 2:57 p.m. ET Dec. 4, 2005

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Dec. 12, 2005 issue - Stuart Forbes celebrated his 60th birthday on April 11. A week later, he was diagnosed with prostate cancer. "It was quite a month," says Forbes, a blunt Vietnam veteran who runs a consulting firm outside Boston. When biopsies confirmed he had an aggressive form of the disease, Forbes started looking for a surgeon. The first recommended a traditional radical prostatectomy, which would require an eight- to 10-inch incision and at least two days in the hospital. Forbes was also warned that he would likely lose almost all the nerves on the left side of the prostate, which could permanently affect his sexual function. "I thought, 'I need to really look at all my options'," says Forbes. He considered high-intensity focused ultrasound ablation, a relatively new technology that's been used in Europe. But it's expensive and would require transatlantic trips. He looked into various forms of radiation, as well as proton-beam therapy. Then, in June, his girlfriend took him to a symposium on robotic surgery. "I saw the machine and how it worked," remembers Forbes. "It was just incredible. I said, 'That's it'."

In August, Dr. Ashutosh Tewari, director of robotic prostatectomy at NewYork-Presbyterian Hospital/Weill

Cornell, removed Forbes's walnut-size prostate and lymph nodes and reattached his bladder to his urethra without once putting his hands inside the patient. Using Intuitive Surgical's da Vinci robotic system and operating through five tiny incisions, Tewari conducted the entire procedure from across the room. He sat at a console and turned two knobs to remotely manipulate tiny surgical instruments attached to adjustable robotic arms. Forbes was walking within hours of his surgery and was discharged the next day. He compares the discomfort from the largest incision (about two inches long, and the only one to require stitches) to a bad pimple. By midweek he was walking three miles daily. In 10 days he was back at work. After three weeks he was playing golf again; by late October he'd regained normal urinary, and most sexual, function. "I'm about as excited as anyone can be about this procedure," he says.

Using robots to perform surgery once seemed a futuristic fantasy. Not anymore. An estimated 36,600 robotic procedures will be performed this year-from heart-bypass surgeries to kidney transplants to hysterectomies. That's up nearly 50 percent from last year, and analysts predict the figure will nearly double in 2006 to more than 70,000 procedures. Since the da Vinci was approved by the Food and Drug Administration in July 2000 (the only robotic system to get the FDA nod), about 350 of the units have been purchased, including 30 in the last quarter alone, at about $1.3 million apiece. Surgeons who use the system have found that patients have less blood loss and pain, lower risk of complications, shorter hospital stays and quicker recovery times than those who have open surgery-and even, in many cases, laparoscopic procedures.

The robotic system has already transformed the field of prostate surgery, for which it was approved in May 2001. That year it was used in less than 1 percent of all prostatectomies. This year more than 20 percent will be done with the robot. And that figure is expected to double next year. "It's becoming the standard of care for prostatectomies," says Dr. Santiago Horgan, director of minimally invasive and robotic surgery at the University of Illinois at Chicago (UIC).

The first major study to compare open and robotic prostatectomies was published in the British Journal of Urology in 2003 by Dr. Mani Menon, head of the Vattikuti Urology Institute at Detroit's Henry Ford Hospital. (The hospital has now done about 2,050 of the robotic procedures-more than any other in the nation.) The study of 300 patients found that those who had open surgery lost five times as much blood, had four times the risk of complications and remained in the hospital more than three times as long as those who had robotic surgery. Robotic-surgery patients had a 14 percent higher rate of cancer removal and, on average, regained urinary function in about a month and a half-four times as fast as open-surgery patients. Also, robotic patients were able to have sexual intercourse again in about 11 months, while half of the open-surgery patients had not regained full sexual function even two years later. The response to the findings was skeptical at best. "They didn't believe any of it," Menon says of some peers. "It just seemed too good to be true."

But a year later, Dr. Thomas Ahlering, chief of urological oncology at the University of California, Irvine, Medical Center, published similar findings in the journal of Urology using 120 of his own patients. And the tide began to turn. "Dr. Menon and a few others showed excellent results with the da Vinci, and then they showed that their results are reproducible," says Dr. Reza Ghavamian, director of urologic oncology at New York's Montefiore Medical Center, which purchased a system this fall. "There's no question this [system] has revolutionized the surgery."

Five years ago, says Dr. David B. Samadi, director of robotic laparoscopic urology surgery at NewYork-Presbyterian Hospital/ Columbia Medical Center, 80 to 90 percent of the prostatectomies he did were open, with less than 10 percent done robotically. Now the figures have reversed. "There is much less blood loss and an extremely low rate of complications," he says.

Forbes's procedure required just five small cuts. A surgical assistant inserted a tiny camera and different instruments, all attached to robotic arms, into Forbes's body through pen-size holes. As he remotely manipulated the forceps or scissors, Tewari kept his eyes glued to a 3-D monitor, which showed images captured by the camera and magnified 10 times. "I can see things nowto within a fraction of a millimeter," says Tewari, who has done nearly 300 robotic prostatectomies in the past year.

The next frontier for robotic surgery may be gynecological laparoscopic procedures, for which the system was just approved this spring. There are about five times as many hysterectomies as prostatectomies performed each year, and surgeons say the complex procedure could benefit from the robotic system's precision. Cardiac surgeons have also begun using the da Vinci for a range of procedures, from mitral-valve repair to coronary-bypass surgery.

In October, Dr. Francis Sutter, chief of cardiology at the Heart Center at Lankenau Hospital, near Philadelphia, did what he says is the first da Vinci double bypass. "I'd heard these stories about how they cut you right down the middle," says his patient Gilbert Minacci, a 65-year-old retired school principal from Glen Rock, Pa. But he had just a single two-inch incision on the left side of his chest. A week and a half after the surgery, Minacci was walking 30 minutes a day, and tests show his heart function is normal again. "I think even my doctor was surprised that I bounced back so quickly," he says. "If you have to go through this, I don't think it could have been much better."

While Sutter is a proponent of the system, he says his peers may be put off by the price tag. His center held fund-raisers to help pay for the da Vinci system in April. "Obviously, I am sold on it," says Sutter, who has since performed 30 coronary bypasses with the system. "But these robots cost a lot of money. That's been a barrier." Insurance companies usually pay the same amount regardless of the type of procedure a patient

picks, Sutter says, so the hospital is left picking up the tab for the more expensive robotic surgery.

Also, some surgeons are reluctant to commit the hours necessary to learn robotic techniques. "There are a lot of surgeons who do what they do, and do it well, and don't want to spend time learning a new skill set," says Scott Goldman, surgery chairman of Main Line Health, which owns the Heart Center at Lankenau. "But I think the people with the strongest objections have never tried it."

Dr. Sam Finlayson, a surgeon and assistant professor of surgery and community and family medicine at Dartmouth Medical School, says the question is whether the procedure has enough of an upside compared with established techniques like laparoscopic surgery. "It's great 'gee whiz' technology that's staggering in its complexity and promise," says Finlayson. "But the onus is on the advocates of da Vinci to prove that there's enough benefit to justify the huge cost."

There's also some concern that once a hospital invests in such an expensive system, surgeons might feel pressured to use it and steer patients toward surgery over other treatment options. "It's not inconceivable that the threshold for operative intervention would be lowered by the introduction of this new technology," says Finlayson. "We saw that with laparoscopy in terms of how people would manage gallbladder disease."

That's not necessarily a bad thing, if the surgical results are markedly better. Proponents say data have already shown that's the case for prostatectomies. Now surgeons who use the system are hopeful that the success demonstrated in urology will be replicated in other areas. "I think we'll see a day when all complex surgeries are done using the robot," says the UIC's Horgan, who's used the da Vinci more than 600 times for procedures ranging from prostatectomies to kidney transplants. "This is the beginning of a revolution. I have no doubt about it."

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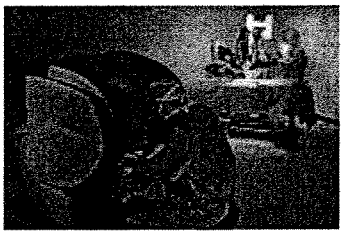
WITNESS: A prostate cancer patient trusts in a robot

Wed Jan 30, 2008 11:04pm EST



1 of 2 Full Size

MARKET NEWS
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Douglas Hamilton has been a correspondent for Reuters for many years and is currently the Bureau Chief for the Balkans, based in Belgrade. In this story, he relates how a diagnosis of cancer led him to the United States for robotic surgery, a new procedure using advanced technology to save lives with less pain, fewer complications, and a better chance of a full return to normal.

By Douglas Hamilton

NEW YORK (Reuters) - Scary as it sounds, robotic surgery is taking a lot of the dread out of prostate cancer.

My experience of the 21st century treatment began at New York Presbyterian Hospital a few days into 2008, with an introduction by surgically masked Chip Berryhill.

"There's the robot, and over there is the console where Dr. Tewari will operate," he instructed casually, as I climbed onto a precariously narrow operating bench halfway between them.

Faintly menacing, the four-armed da Vinci machine stood against the wall, waiting to be moved into position once I had lost consciousness under the anesthetic.

Berryhill is physician assistant to Dr. Ash Tewari, who is recognized as one of the world's top practitioners of a procedure changing the face of modern medicine.

Prostate cancer is the second leading cancer killer for men, after lung

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cancer. A simple blood test now helps detect it, before it spreads. But eradication of the threat through surgery carries risks men dread -- incontinence and impotence.

"It's a tough call," admitted Prof. Wolfgang Aulitzky of Vienna's Confraternitaet clinic, after diagnosing my cancer in October. There were no symptoms, just a high score on the PSA (prostate specific antigen) blood test.

The test is not perfect. It may indicate cancer where there is none, or miss it where it exists. Men with high PSA and nerves of steel may chose to ignore it. Others have a biopsy.

Little cores are cut from the walnut-sized gland. Even if the biopsy does detect some evidence of cancer the procedure can miss aggressive tumors that kill quickly.

There are a range of treatments for the cancer. But given my biopsy results the doctors said the only real choice was decisive action.

"Radiotherapy to slow the cancer is an option for older men," said Aulitzky when he reviewed my biopsy results. "In a healthy man of 60 we go for longevity and that means radical prostatectomy to remove it."

COMPETING AIMS

I embarked on a frenzy of reading, then accepted the need to choose: risk surgery or risk early death.

For the prostate surgeon, the challenge lies in two fundamentally competing goals: eradicating the cancer while preserving to the maximum the patient's quality of life. **Continued...**

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While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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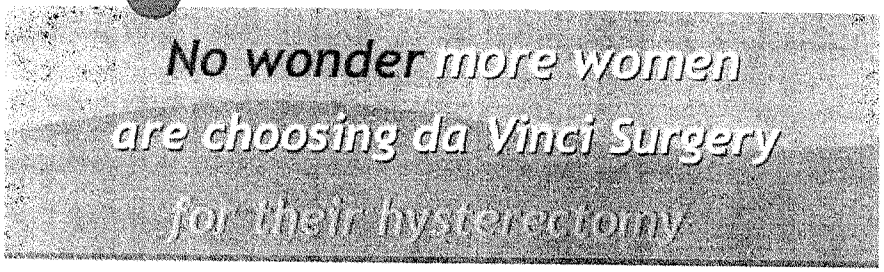
EXHIBIT 24



One in three women in the U.S. will have a hysterectomy before she turns 60. While no woman wants to face surgery, today the vast majority of gynecologic conditions - from endometriosis to uterine fibroids, heavy menstrual bleeding to cancer - can now be treated effectively without a big incision. With *da Vinci*® Surgery, a hysterectomy requires only a few small incisions, so you can get back to life faster - within days rather than the usual weeks required with traditional surgery.

da Vinci Surgery enables gynecologists to perform the most precise, minimally invasive hysterectomy available today. For most women, *da Vinci* Hysterectomy offers numerous potential benefits over traditional open surgery, including:

- Significantly less pain[2]
- Minimal blood loss and need for transfusion[11,3]
- Fewer complications[11,12]
- Shorter hospital stay[11,12]
- Quicker recovery and return to normal activities[1,2]
- Small incisions for minimal scarring
- Better outcomes and patient satisfaction, in many cases[11]

Surpassing the limits of conventional laparoscopic surgery, *da Vinci* is revolutionizing gynecologic surgery for women. **No wonder** more and more women are choosing *da Vinci* Surgery for their hysterectomy.

If you have been putting off surgery to resolve a gynecologic problem, it's time to ask your doctor about *da Vinci* Surgery.

Learn why *da Vinci* Hysterectomy may be your best treatment option.

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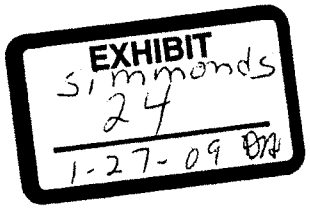

While clinical studies support the effectiveness of the da Vinci® System when used in minimally invasive surgery, individual results may vary. Surgery with the da Vinci Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

According to the US Department of Health and Human Services, one in three women in the United States has had a hysterectomy by age 60. Source: http://www.womenshealth.gov/faq/hysterectomy.htm

[1] http://www.merck.com/mmhe/sec22/ch242/ch242b.html#sec22-ch242-ch242b-83
[2] http://www.nccn.org/patients/patient_gls/_english/_pain/2_assessment.asp
[3] http://www.merck.com/mmhe/sec22/ch252/ch252f.html?qt=pain%20during%20intercourse&alt=sh
[11] Boggess JF. Robotic surgery in gynecologic oncology: evolution of a new surgical paradigm. J Robotic Surg 2007 1:31-3
[12] Payne TN, et al. A comparison of total laparoscopic hysterectomy to robotically assisted hysterectomy: surgical outcomes in a community practice. J Minim Invasive Gynecol. 2008 May-June;15(3):286-91

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Common Gynecologic Symptoms

Two of the most common gynecologic symptoms that women experience are pain and excessive or irregular menstrual bleeding[1]. Before a medical appointment, it is helpful to track and document your symptoms - the location, frequency, intensity, etc. The more specific you can be in describing your symptoms, the more helpful this will be for your doctor in diagnosing your condition. Bring this information to your appointment. It will help your doctor diagnose your gynecologic condition and offer you the most appropriate treatment options for your condition.

Pain

Pain can be described in many ways. Intensity of pain is commonly measured with a simple 0-10 point scale where 0 equals no pain and 10 is the worst pain imaginable[2]. Describing your pain can help your doctor pinpoint the condition. Each of the following descriptions of pain may indicate a different gynecologic condition:

- Pelvic discomfort
- Pelvic pressure
- Abdominal tenderness
- Abdominal cramps
- Back ache
- Back pain
- Painful urination and/or bowel movements
- Pain during intercourse[3,4]

Bleeding

Monthly menstrual bleeding (your period) is different for each woman. It is important to describe what is normal for you, how often you have your

period, how long it usually lasts and how heavy it usually is. Remember that bleeding patterns can be different before and after childbirth, with age, and with any medications you regularly take. Abnormal bleeding must be compared to what is normal for you. The following are examples of bleeding patterns that may be patterns of specific gynecologic conditions:

- Excessively heavy or abnormal bleeding
- Bleeding longer than 7 days
- Periods more frequent than 21 days
- Periods more than 35 days apart
- Spotting/bleeding between periods
- Spotting/bleeding after menopause
- Passing blood clots
- Painful bleeding
- Bleeding after intercourse
- Vaginal bleeding (vs. uterine bleeding)
- Vaginal discharge tinged with blood[5]

Other Symptoms

There are other symptoms that can stand alone or accompany pain and bleeding. They also need to be described, in order for your doctor to accurately diagnose your condition:

- Difficulty with urination or bowel movements
- Improper bowel/bladder function
- Infertility
- Feeling of pressure on your bladder or rectum
- Slipping or dropping of your vagina or uterus
- Feeling heaviness or pressure in your pelvis
- Constant abdominal pressure
- Swelling or bloating
- Urinary urgency (feeling the need to go)
- Recurrent urinary tract infections
- Pain while standing or walking[6]

Talk to Your Doctor

If something doesn't seem right, see your doctor. The symptoms listed above can occur alone or in combination with each other. These symptoms may potentially indicate the presence of endometriosis / adenomyosis, uterine fibroids, uterine prolapse or, possibly, cancer.

You can learn more about each of those conditions here on this site. However, this information is not a substitute for your doctor's advice. Communicating your symptoms in detail with your doctor will help your doctor make an accurate diagnosis and provide you with the most appropriate treatment options for your condition.

- **Find out more about hysterectomy options**

[1] http://www.merck.com/mmhe/sec22/ch242/ch242b.html#sec22-ch242-ch242b-83
[2] http://www.nccn.org/patients/patient_gls/_english/_pain/2_assessment.asp
[3] http://www.merck.com/mmhe/sec22/ch252/ch252f.html?qt=pain%20during%20intercourse&alt=sh
[4] http://www.merck.com/mmhe/sec22/ch249/ch249a.html?qt=vaginal%20vault%20prolapse&alt=sh
[5] http://www.merck.com/mmhe/sec22/ch242/ch242b.html?qt=Vaginal%20discharge%20tinged%20with%20blood&alt=sh
[6] http://www.merck.com/mmhe/sec22/ch249/ch249a.html?qt=vaginal%20vault%20prolapse&alt=sh

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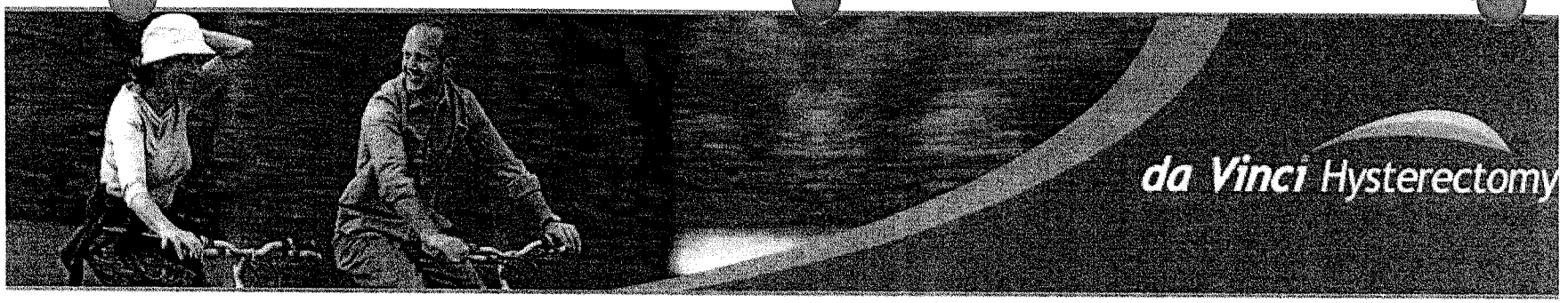

Conditions & Treatments

A wide variety of benign (non-cancerous) conditions may affect a woman's reproductive system, which consists of the uterus, vagina, ovaries and fallopian tubes. Most of these conditions affect the uterus, which is the hollow, muscular organ that holds a baby as it grows inside a pregnant woman. Common types of gynecologic conditions – such as fibroids (non-cancerous growths in the uterine wall), endometriosis (non-cancerous growths of the uterine lining) or prolapse (falling or slipping of the uterus) – can cause chronic pain and heavy bleeding, as well as other disabling symptoms.

When medication and other treatments are unable to relieve symptoms, hysterectomy – the surgical removal of the uterus – is often recommended to provide a more effective, definitive, long-term solution. In fact, this procedure is the second most common surgical procedure for women in the United States, and an estimated one third of all U.S. women will have a hysterectomy by age 60.[1]

Read more about gynecologic conditions:

- Uterine Fibroids Treatment
- Endometriosis / Adenomyosis
- Uterine Prolapse
- Excessive Menstrual Bleeding

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

1. http://www.womenshealth.gov/faq/hysterectomy.htm

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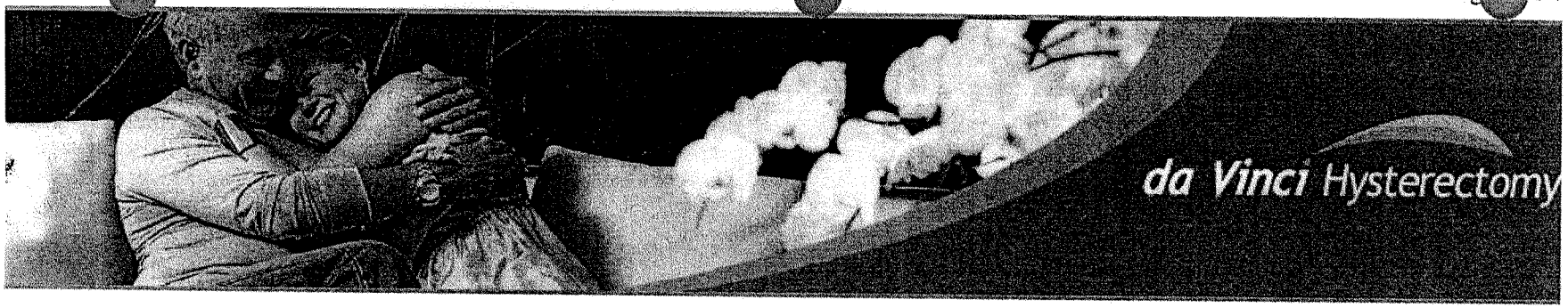
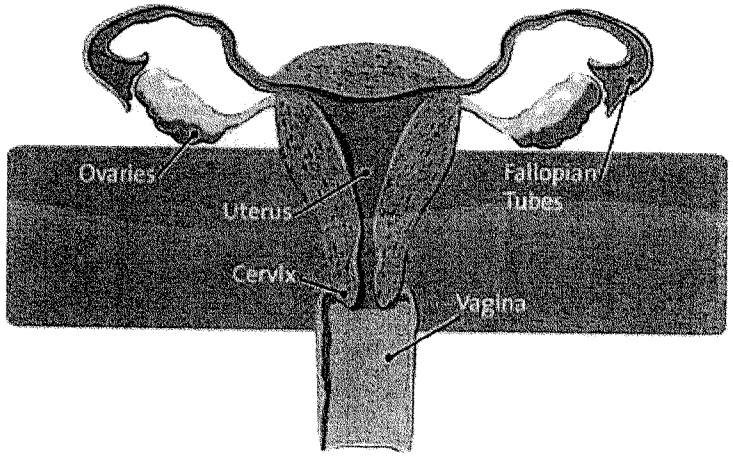


Hysterectomy Options

Physicians perform hysterectomy – the surgical removal of the uterus – to treat a wide variety of uterine conditions. Each year in the U.S. alone, doctors perform approximately 600,000 hysterectomies, making it the second most common surgical procedure for women.[1]



Types of Hysterectomy

There are various types of hysterectomy that are performed depending on the patient's diagnosis. All hysterectomies involve removal of the uterus. What can vary are which additional reproductive organs and other tissues that may be removed. Types of hysterectomy include:

- **Partial or subtotal hysterectomy:** This is also known as a supracervical hysterectomy. This procedure involves removing the uterus, but leaves the cervix intact. This decision is often based upon patient preference. Some women feel that leaving the cervix intact will preserve sexual function following surgery.[2]

- **Total hysterectomy:** This procedure involves removing the uterus and the cervix. The vagina remains entirely intact. This is the most common type of hysterectomy performed.
- **Removal of lymph nodes:** For hysterectomies performed for malignant conditions – such as uterine, cervical, or ovarian cancer – the surgeon will also remove certain lymph nodes. This procedure is often referred to as a lymph node dissection or lymphadenectomy. Lymph nodes will be removed in certain areas, depending upon the location and extent of the disease. Lymph node removal also helps your surgeon determine the extent or stage of your cancer, and can guide further adjuvant treatment, such as radiation therapy or chemotherapy.
- **Removal of the fallopian tubes and ovaries:** These organs may or may not be removed during your hysterectomy procedure. This will depend upon your condition, age, and other factors. Often, the ovaries and fallopian tubes are left intact.[3] Removal of the ovaries is called an oophorectomy. Removal of fallopian tubes and ovaries is called a salpingo-oophorectomy.
- **Radical hysterectomy:** Removes the uterus and cervix
- **Total hysterectomy:** This procedure is most often performed for cervical cancer, and involves removal of the uterus, tissues next to the uterus, the upper part (about 1 inch) of the vagina and pelvic lymph nodes. The fallopian tubes and ovaries may also be removed.

Approaches to Hysterectomy

Surgeons perform the majority of hysterectomies using an "open" approach, which is through a large abdominal incision. An open approach to the hysterectomy procedure requires a 6-12 inch incision.

A second approach is vaginal hysterectomy, which involves the removal of the uterus through the vagina, without any external incision or subsequent scarring. Surgeons most often use this minimally invasive approach if the patient's condition is benign, when the uterus is normal size and the condition is limited to the uterus.

In laparoscopic hysterectomies, the uterus is removed using instruments inserted through small tubes into the abdomen, resulting in 3-5 small incisions in the abdomen. One of these instruments is an endoscope – a small miniaturized camera – which allows the surgeon to see the target anatomy on a standard 2D video monitor. A laparoscopic approach offers surgeons better visualization of affected structures than either vaginal or abdominal hysterectomy.

You may encounter shorthand abbreviations describing different approaches to hysterectomy. Some of these are as follows:

- **Total Laparoscopic Hysterectomy (TLH):** The uterus and cervix are removed using laparoscopic instrumentation through 3-5 small incisions made in the abdomen.
- **Laparoscopic Supracervical Hysterectomy (LSH):** The uterus is removed, but the cervix is left in tact, using laparoscopic instrumentation through 3-5 small incisions made in the abdomen. The uterus is removed through one of the small incisions using an instrument called a morcellator.
- **Total Vaginal Hysterectomy (TVH):** The uterus and cervix are removed through an incision deep inside the vagina. This is often the surgical approach to treat uterine prolapse.
- **Total Abdominal Hysterectomy (TAH):** The uterus and cervix are removed through a large abdominal incision. The incision size can vary

from 6-12 inches, depending upon the patient's condition.

While minimally invasive vaginal and laparoscopic hysterectomies offer important potential advantages to patients over open abdominal hysterectomy – including reduced risk for complications, a shorter hospitalization and faster recovery – there are inherent drawbacks. With vaginal hysterectomy, surgeons are challenged by a small working space and lack of view to the pelvic organs. Additional conditions can make the vaginal approach difficult, including when the patient has:

- A narrow pubic arch (an area between the hip bones where they come together)[4]
- Thick adhesions due to prior pelvic surgery, such as C-section[5]
- Severe endometriosis[6]
- Non-localized cancer (cancer outside the uterus) requiring more extensive tissue removal, including lymph nodes

With laparoscopic hysterectomies, surgeons may be limited in their dexterity (since the instruments are straight and rigid) and by 2D visualization, both of which can potentially reduce the surgeon's precision and control when compared with traditional abdominal surgery.

da Vinci Hysterectomy

One in three women in the U.S. will have a hysterectomy before she turns 60.[1] While no woman wants to face surgery, today the vast majority of gynecologic conditions - from endometriosis to uterine fibroids, heavy menstrual bleeding to cancer - can now be treated effectively without a big incision. With *da Vinci*® Surgery, a hysterectomy requires only a few small incisions, so you can get back to life faster - within days rather than the usual weeks required with traditional surgery.

da Vinci Surgery enables gynecologists to perform the most precise, minimally invasive hysterectomy available today. For most women, *da Vinci* Hysterectomy offers numerous potential benefits over traditional open surgery, including:

- Significantly less pain[5]
- Minimal blood loss and need for transfusion[6,7]
- Fewer complications[7,8]
- Shorter hospital stay[7,8]
- Quicker recovery and return to normal activities[4,5]
- Small incisions for minimal scarring
- Better outcomes and patient satisfaction, in many cases[6]

Surpassing the limits of conventional laparoscopic surgery, *da Vinci* is revolutionizing gynecologic surgery for women. **No wonder** more and more women are choosing *da Vinci* Surgery for their hysterectomy.

If you have been putting off surgery to resolve a gynecologic problem, it may be time to ask your doctor about *da Vinci* Surgery.

Learn why *da Vinci* Hysterectomy may be your best treatment option.

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

1. http://www.womenshealth.gov/faq/hysterectomy.htm
2. http://medical-dictionary.thefreedictionary.com/partial+hysterectomy
3. http://www.cancer.org/docroot/CRI/content/CRI_2_4_4X_Surgery_8.asp
4. http://www.merck.com/mmhe/sec22/ch242/ch242b.html#sec22-ch242-ch242b-83
5. http://www.nccn.org/patients/patient_gls/_english/_pain/2_assessment.asp
6. http://www.merck.com/mmhe/sec22/ch252/ch252f.html?qt=pain%20during%20intercourse&alt=sh
7. Boggess JF. Robotic surgery in gynecologic oncology: evolution of a new surgical paradigm. J Rob Surg 2007 1:31-3
8. Payne TN, et al. A comparison of total laparoscopic hysterectomy to robotically assisted hysterectomy: surgical outcomes in a community practice. J Minim Invasive Gynecol. 2008 May-June;15(3):286-91

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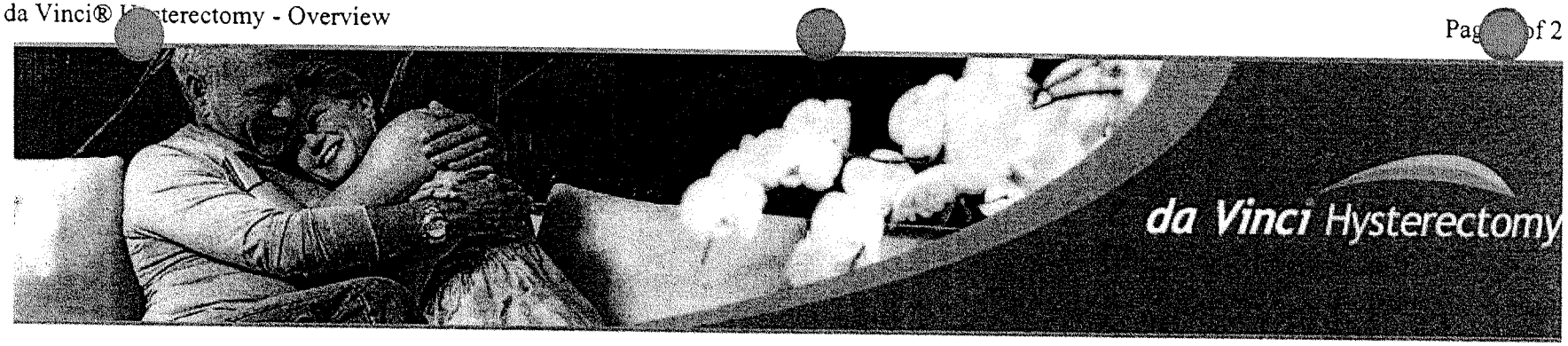
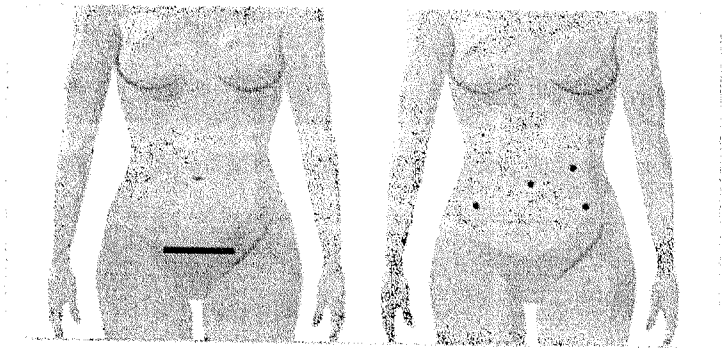


da Vinci Hysterectomy

When medication and other treatments are unable to relieve symptoms, hysterectomy is often recommended to provide a more effective, definitive and long-term solution for excessive menstrual bleeding. If you are considering or your doctor has recommended a hysterectomy, you are not alone - one in three women in the U.S. will have a hysterectomy before turning 60.[1]



Open Hysterectomy Incision *da Vinci* Hysterectomy Incisions

da Vinci Hysterectomy offers numerous potential benefits over traditional approaches, including:

- Significantly less pain[2]
- Minimal blood loss and need for transfusion[11,3]
- Fewer complications[11,12]
- Shorter hospital stay[11,12]
- Quicker recovery and return to normal activities[1,2]

- Small incisions for minimal scarring
- Better outcomes and patient satisfaction, in many cases[11]

This procedure is performed using the *da Vinci* Surgical System, a breakthrough surgical platform which enables gynecologists to operate with unmatched precision, dexterity and control. By overcoming the limitations of both traditional open and laparoscopic surgery, *da Vinci* is revolutionizing gynecologic surgery for women. Read about how *da Vinci* Surgery enables gynecologists to perform the most precise, minimally invasive hysterectomy available today - *da Vinci* Hysterectomy.

- The *da Vinci* Surgical System
- FAQs
- Am I A Candidate?
- Important Safety Information

1. http://womenshealth.gov/faq/hysterectomy.htm
2. Boggess JF. Robotic surgery in gynecologic oncology: evolution of a new surgical paradigm. J Robotic Surg 2007 1:31-3
3. Payne TN, et al. A comparison of total laparoscopic hysterectomy to robotically assisted hysterectomy: surgical outcomes in a community practice. J Minim Invasive Gynecol. 2008 May-June;15(3):286-91

While clinical studies support the effectiveness of the da Vinci® System when used in minimally invasive surgery, individual results may vary. Surgery with the da Vinci Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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Am I a Candidate for *da Vinci* Surgery?

Most people are candidates for *da Vinci*® Surgery, but it may not be right for everybody. Only you and your doctor can decide whether *da Vinci* Surgery is right for you. Before making your decision, you should make sure you are aware of all the options available to you, as well as your physician's experience as a *da Vinci* surgeon.

To determine if you are a candidate for *da Vinci* Surgery, and to ensure you get the information you need from a consultation with your physician, we have put together a brief questionnaire that you can take into your doctor's appointment with you.

If you'd like to print this page first, just click here. You can also download this questionnaire as a pdf.

My symptoms or conditions are:

- ☐ Pelvic Pain
- ☐ Abnormal Bleeding
- ☐ Uterine Fibroids
- ☐ Endometriosis
- ☐ Falling Uterus or Bladder (Prolapse)
- ☐ Infertility
- ☐ Cancer
- ☐ Other/Not Sure

Please Check All That Apply:

- ☐ I would like to avoid a large incision and scar.
- ☐ It is important that I am able to return to my normal activities (e.g., driving) as soon as possible after surgery.
- ☐ I would like to minimize the length of time I am in the hospital to just one night, if possible.
- ☐ I would like to minimize my blood loss and need for blood transfusion(s) during surgery.

- ☐ I would like to limit the amount/duration of pain medications I take after surgery.
- ☐ I would like to minimize my risk of infection after the surgery.

- Find a *da Vinci* Surgeon

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After the Hysterectomy

After you recover from your hysterectomy, you may feel better than you have in a long time. An active, healthy lifestyle and regular medical care can help you continue to feel good.

The small incisions from your robotic-assisted surgery may heal much faster than an incision created during open surgery hysterectomy. Although individual results will vary, some patients report a return to normal daily activities without any pain or discomfort within 1-2 weeks.

Being Intimate
After a hysterectomy, sex can be as pleasurable as it was before. Follow your surgeon's instructions on when you can resume having intercourse. This is usually within 4–8 weeks after the procedure. Other types of sexual activity may be possible sooner. If you experience vaginal dryness during sex, use a lubricant. Be aware that a hysterectomy prevents pregnancy but does not protect you against sexually transmitted diseases. If you have any concerns, discuss them with your partner and your doctor.

Being Aware of Your Emotions
After a hysterectomy, you may feel relieved to be free of symptoms. You may also feel sad about the changes in your body. If your ovaries were removed, you may go through some natural mood swings as your hormones adjust. Note how you are feeling from day to day. Talk to your doctor if you're concerned about emotions you are feeling.

Ongoing Healthcare
Regular physical exams help to ensure your general health and well-being.

- You will continue to need routine breast exams and pelvic exams. This includes Pap tests.
- If you're taking HT (Hormone Therapy), you will need follow-up visits with your doctor to fine-tune your dosage.

What to Know About Hormone Therapy
Hormone therapy (HT) is medication to replace the hormones made by your ovaries. It may be advised if your ovaries are removed and you have not yet gone

through natural menopause. HT helps decrease hot flashes, vaginal dryness, and other symptoms of menopause. It may help reduce bone loss and lessen your risk of developing osteoporosis. But HT may also increase the risk of certain types of health problems in some women. Discuss the pros and cons of HT with your doctor.

- **Meet *da Vinci* Patients**
- **Meet *da Vinci* Surgeons**

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Experiences & Testimonials

In this section, you can watch first-hand accounts from *da Vinci* patients, hear from *da Vinci* surgeons, and find out what your experience with *da Vinci* surgery may be like.

- After The Hysterectomy
- Meet *da Vinci* Patients
- Meet *da Vinci* Surgeons

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Meet *da Vinci* Patients

These stories reveal the real-life experiences of people who have faced potentially life-threatening conditions. Each one provides a window into the potential benefits of minimally invasive surgery with the *da Vinci*® Surgical System.

da Vinci Hysterectomy patient testimonials:

Patient: Dara M.
Procedure: Hysterectomy
Surgeon: Dr. Lynn Kowalski
Institution: Sunrise Hospital and Medical Center, Las Vegas, NV

"When I woke up, the first thing that occurred to me was that I didn't hurt. I went home the next day. The first week I felt tired, but my kids had massive stomach bugs that first week, and I was able to care for them. Within two weeks, I was driving and my husband and I went out on a date night.

Nobody wants to have a surgery done, but if you have to have it, why not take advantage of the technology that's out there to reduce the impact it has on your life? The whole goal is to get back to your life."

Watch video

Patient: Lillian E.
Procedure: Hysterectomy
Surgeon: Dr. Lynn Kowalski

Institution: Sunrise Hospital and Medical Center, Las Vegas, NV

"(Dr. Kowalski) came the next morning and she said, 'Did I do surgery on you yesterday?', and I said, 'Yeah. I want to go home.' It was just too easy. What really amazed me ... I went to see the girls at work Tuesday, and they all said to me, 'What are you doing here?' because a lot of them had had hysterectomies and they were still in bed after 10 days.

I never took a pain pill at all. I didn't have any pain. By not being opened, and not losing that much blood, I felt marvelous. I would not even consider using the old method. I like that robotic (method), I really do. Everybody says, 'I want what you had.' They would look at me and say, 'Didn't you have surgery?'"

Watch video

Patient: Christina Clark-Zoltec
Procedure: Hysterectomy
Surgeon: Dr. John F. Boggess
Institution: N.C. Women's Hospital at the University of North Carolina Hospitals, Chapel Hill, NC

"I had my son's 3rd birthday party, with the works, 4 days (after the procedure). I was a little slow, but, you know, I would have still been in the hospital if I'd had a traditional hysterectomy."

Watch video

Patient: Brenda G.
Procedure: Hysterectomy
Surgeon: Dr. John F. Boggess
Institution: N.C. Women's Hospital at the University of North Carolina Hospitals, Chapel Hill, NC

"(With *da Vinci* surgery) I could stay in shape for the next bout of treatment that was coming. With cancer, you're already at a deficit. A big one. And there's another deficit just waiting around the corner. I would say, "Give yourself every break you possibly can." And, of course, for me, the robot was the very first step."

Watch video

Patient: Karena O'Connell
Procedure: Hysterectomy
Surgeon: Dr. Mark Zepeda
Institution: St. Joseph Hospital, Orange, CA

"This isn't your mom's hysterectomy, and it's not your grandma's hysterectomy. It's the blink of an eye. It's nothing."

Watch video

Patients: Jet St. L; Tonia D.; Sheela M.
Procedure: Hysterectomy & Myomectomy
Surgeons: Colleen Feltmate, MD; Antonio R. Gargiulo, MD; Serene Srouji, MD
Institution: Brigham & Women's Hospital, Boston, MA

Jet: "It was just a small chapter out of my life ... I can't say enough about the care that I got."

Tonia: "I was able to go back to work after a week, and today I feel 150%. I have more energy. And we found out the other day that we *are* pregnant, and we're very excited ... it's almost a miracle."

Sheela: "It was an easy decision. There wasn't much to discuss, because it was the best of all options for me. The recovery has been very, very good. I've been very pleased with laparoscopic surgery."

Watch video

Patient: Shula B.
Procedure: Hysterectomy
Surgeon: Dr. John F. Boggess
Institution: N.C. Women's Hospital at the University of North Carolina Hospitals, Chapel Hill, NC

"My idea of surgery is a lot of pain and lengthy recovery and a lot of discomfort, and that's not really been my experience. I wasn't expecting to feel this spry the next morning, I feel great. What I thought it meant was six weeks of no activity, taking a long time to get back to my work and to my life. If anything, I may need to go back to work sooner than I would like."

Watch video

Patient: Sylvia Tippett
Procedure: Hysterectomy
Surgeon: Dr. John F. Boggess
Institution: N.C. Women's Hospital at the University of North Carolina Hospitals, Chapel Hill, NC

"It's mind-boggling to me that I had a total hysterectomy and in less than 24 hours I was headed home and in less than two weeks I was back to normal activities. I don't even feel like I've had surgery. As a nurse, I'm thinking every woman should receive this type of care."

Watch video

Learn More
If you are a candidate for hysterectomy, talk to a gynecologist or gynecologic oncologist (a cancer specialist) who performs da Vinci Hysterectomy. To find a da Vinci gynecologic surgeon, use our surgeon locator.

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Meet *da Vinci*® Surgeons

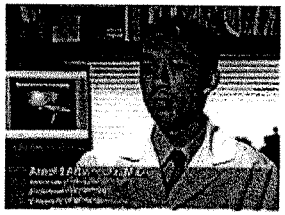
Surgeon perspective on minimally invasive surgery and the enabling characteristics of the *da Vinci*® Surgical System.

Dr. John Boggess *on the experiences of patients undergoing da Vinci Surgery versus traditional open surgery.*

John F. Boggess, M.D.
Associate Professor of OB/GYN
University of North Carolina Hospital
Chapel Hill, NC

Watch Video: Dr. Boggess & Three Patients Discuss Their Experience
Watch Video: Dr. Boggess One-on-One Interview

Dr. Arnold Advincula *on benefits to surgeons in using da Vinci surgery for completion of myomectomies and how the difficulties of traditional laparascopic removal of the uterus are overcome.*



Arnold Advincula, M.D.
Associate Professor
Department of OB/GYN
University of Michigan Health System
Ann Arbor, MI

Watch Video

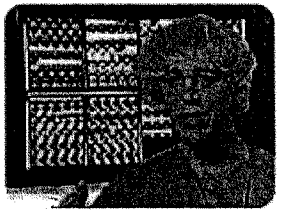
Dr. Lynn Kowalski *on the experiences of and benefits to patients undergoing gynecologic surgery using the da Vinci Surgical System®.*

Lynn Kowalski, M.D., FACOG, FACS
Gynecologic Oncologist
Sunrise Hospital & Medical Center
Las Vegas, NV

Watch Video

Dr. Kowalski's patient education seminar

Dr. Mark Talamini *on the advantages that da Vinci's 3D visualization and wristed instruments bring to the surgeon.*



Mark Talamini, M.D., F.A.C.S
Professor of Surgery
Chairman, Department of Surgery
University of California San Diego

Watch Video

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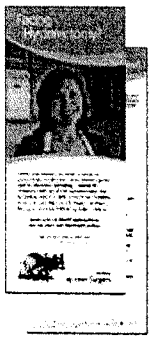
Educational Materials

To help you complete your understanding of gynecologic conditions, hysterectomy and robotic-assisted surgery, we have made a few additional resources available for you on this site.

These resources are broken into three categories:

- Online Seminars & Podcasts
- Surgery Webcasts
- Useful Links to Hysterectomy Sites

Printable Brochures



- da Vinci Hysterectomy Leaflet, with physician

- da Vinci Surgery for Gynecologic Conditons

- da Vinci Surgery for Gynecologic Cancer

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Online Seminars & Podcasts

Patient Education seminars

Dr. Lynn Kowalski narrates this informative patient education seminar on gynecologic conditions. The presentation provides an overview of common conditions and discusses various treatment options and their respective advantages.

View and listen to the seminar here
(a new browser window will open).

Lynn Kowalski, M.D., FACOG
Gynecologic Oncologist
Nevada Surgery
& Cancer Care
Las Vegas, Nevada

Patient Education Podcasts

da Vinci Surgery Podcasts for patient education
(Will launch iTunes)

Gynecologic Patient Education Seminar Podcast
(Requires Quicktime be installed to download and play)

da Vinci S HD Technical Overview Video Podcast
(Requires Quicktime be installed to download and play)

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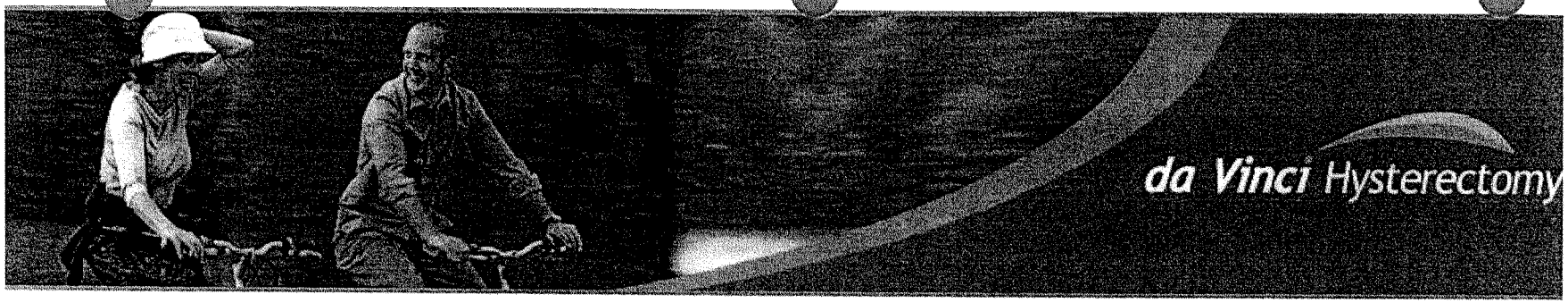

Find a *da Vinci* Surgeon

Please enter your zip code and select whether you would like to search surgeons or hospitals.

Search for	◉ Surgeons ○ Hospitals
Search by ZIP	Enter zip code
State	Or select a state...
International	Or select a country...

Important Information about this locator:
Your Information
While Intuitive Surgical is happy to provide a service that easily connects potential *da Vinci* Surgery patients with practicing *da Vinci* surgeons, you should be aware, per our privacy policy, that Intuitive Surgical may actively collect any information submitted via its web sites for the purposes of diagnostic monitoring. This means that any message you submit to physicians via this physician finder may be read by members of the Intuitive Surgical team and/or its representatives during the course of ensuring that the physician locator is being used appropriately. This information is stored in a way to prevent identifying the message comment with any individual person, but to protect your safety you should not provide any personal medical history via this site and instead discuss that history in person with your physician. Although Intuitive Surgical does not use the details of these messages for any sales or marketing purpose, by using this form you agree that you are permitting Intuitive Surgical to use any information provided under the Health Insurance Portability and Accountability Act.

Surgeon Training
The *da Vinci* Surgical System should be used only by surgeons who have developed adequate robotic skills to perform the tasks associated with each procedure and who have received specific training in the use of the *da Vinci* Surgical System. Training provided by Intuitive Surgical is limited to product education on the *da Vinci* Surgical System and does not replace the necessary medical training and experience required to perform surgery.

Intuitive Surgical makes no claims as to the competency, training or licensing of the physicians listed or identified on this site. We encourage patients to investigate your surgeon's training and experience by searching the American Medical Association's (AMA) "Directory of Physicians in the U.S." and the American Board of Medical Specialties

(ABMS) "Official Directory of Board Certified Medical Specialists".

While every reasonable effort is made to validate that surgeon listings are accurate at the time of entry, this directory may become out-of-date over time. To ensure that the information provided is accurate, patients should call the provider. Patients should also ask whether the provider accepts their insurance and should contact their insurance providers to determine whether coverage is available before pursuing treatment.

Neither Intuitive Surgical, who sponsors this site, nor any of its partners or licensees shall be liable for any losses, damages, or unrecovered charges as a result of using this directory or receiving care from a provider listed in this web site.

While clinical studies support the effectiveness of the *da Vinci*® System when used in minimally invasive surgery, individual results may vary. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual. Always ask your doctor about all treatment options, as well as their risks and benefits.

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EXHIBIT 25

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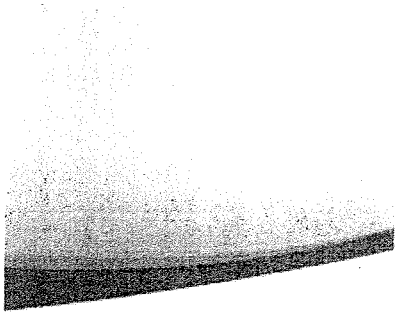
EXHIBIT
Simmonds
25
1-27-09 DR



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1. Share Your Story: Personal Consent

SHARE YOUR STORY
PERSONAL CONSENT AND RELEASE

IMPORTANT NOTICE TO "SHARE YOUR STORY" PARTICIPANTS. Please read this personal consent and release ("Consent") carefully before agreeing to its terms and participating in the "Share Your Story" program ("Program"). This is a legal and binding contract between you and the Intuitive Surgical, Inc., daVinciSurgery.com's sponsor ("Intuitive"). This Consent contains information related to the use and ownership of your story, images and other information you provide to Intuitive and your participation in the Program. By selecting the "I Agree" button below and participating in the Program you acknowledge that you understand and agree to be bound by the terms set forth in this Consent. You may print this Consent by clicking on the link below or may request a written copy from Intuitive at any time. If you do not agree to the terms of this Consent you will not be authorized to participate in the Program.

By signing this Consent, I grant Intuitive Surgical (Intuitive) and its representatives permission to use my story/photo/video for promotional purposes and, if applicable, to disclose my health information.

1. I authorize Intuitive Surgical's publication of my name/my child's name, photo/likeness/video and all or part of my/his/her testimonial/quotes.
2. I authorize this use in various Intuitive Surgical-sponsored literature such as, but not limited to, newsletters, brochures, web pages and videos promoting the company's products and/or services.
3. I authorize Intuitive Surgical's release of this information to media representatives for the purpose of promoting Intuitive Surgical products and/or services.
4. I understand that Intuitive Surgical will not receive any direct payments for the disclosures.
5. I understand that this authorization is voluntary and that I may refuse to sign this authorization. My refusal to sign will not affect my ability to obtain Intuitive Surgical's products, services, other treatment, or otherwise affect my healthcare eligibility.
6. This authorization will remain in effect until I revoke it by providing written notice to Intuitive.
7. I understand that if I request it, Intuitive will provide me a copy of this authorization.
8. (Where applicable) As a patient, I understand that this use potentially discloses personal health information, as covered in my testimonial
9. **I understand that I may revoke this authorization at any time by providing written notice as set for in Intuitive Surgical's Privacy Policy. However, I understand and agree that if I revoke this authorization, Intuitive Surgical is not responsible for notifying those to whom it has disclosed this information, including media representatives.**
10. **I understand that once disclosed, my health information may be subject to re-disclosure, at which point it is no longer subject to federal privacy laws.**

I represent and warrant that I am legally entitled to enter into this Consent and that I acknowledge that this Consent constitutes a legal, valid and binding obligation.

Next/Accept >>

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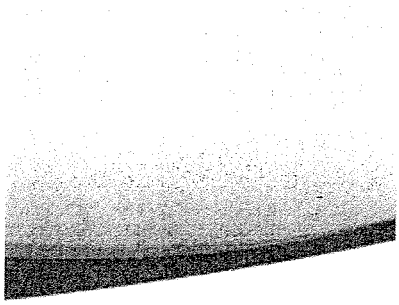

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da Vinci Surgery Patient Stories

2. Share Your Story: About You

* Fields marked with an asterisk are required.

*First Name: _____

*Last Name: _____

☐ I do not want my last name displayed.

*Your Email: _____

☐ I would like to help prospective patients make their decision. Allow them to contact me.

Gender: ○ Male ○ Female

*Age: _____

Occupation: -- Please Select Your Occupation --

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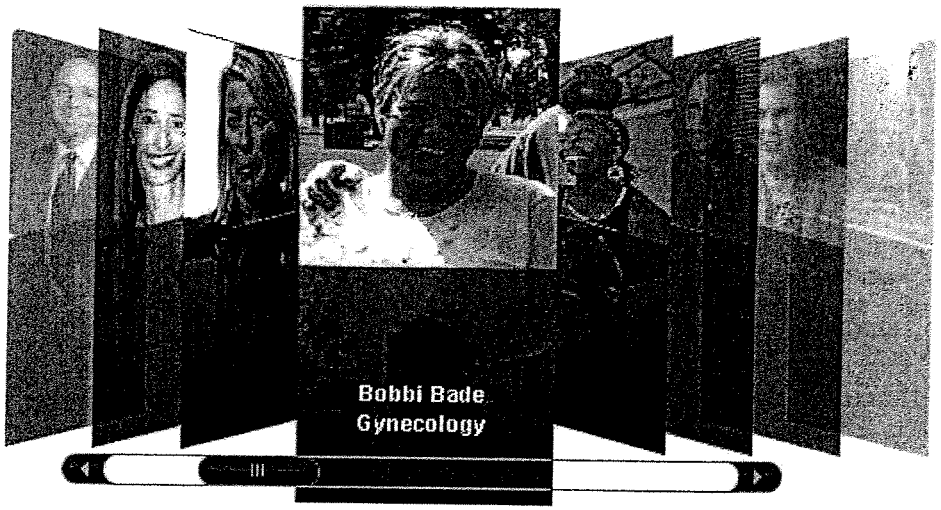


On daVinciSurgery.com, you can read all about the da Vinci Surgical System, the medical conditions surgeons have used it to treat and how da Vinci Surgery compares to other forms of treatment. But nothing will provide you as rich an understanding of what a *da Vinci* Surgery experience is like as hearing directly from *da Vinci* patients themselves. On daVinciStories.com, you can browse all patient stories, flip through highlighted stories, watch video testimonials or search for specific stories that may match your own circumstances.

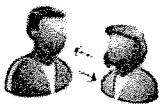
FIND PATIENT STORIES

Looking for *da Vinci* patient experience stories from people like you?
Here you can search through stories by a number of different crtieria; by location, by medical condition, and more.

Search by: Additional Search Options:
Condition:
Gender: ○ Male ○ Female
Procedure:
Age Range:
Country:
Occupation:
State:
Hospital:

Search Stories

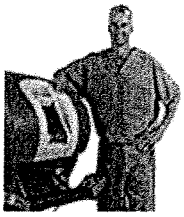
SHARE YOUR STORY



Did you have a *da Vinci* procedure?
Want others to benefit from your knowledge of what undergoing a *da Vinci* experience really means?

Share Your Story

LEARN MORE ABOUT *DA VINCI* SURGERY



New to *da Vinci* Surgery? Learn more about *da Vinci* procedures, the enabling technology of the *da Vinci* Surgical System, and how *da Vinci* Surgery compares to other treatment options.

daVinciSurgery.com daVinciProstatectomy.com daVinciHysterectomy.com

IMPORTANT NOTICE

While clinical studies support the effectiveness of the *da Vinci* Surgical System when used in minimally invasive surgery, individual results may vary. There are no guaranties of outcome. Surgery with the *da Vinci* Surgical System may not be appropriate for every individual; it may not be applicable to your condition. The individual opinions of previous *da Vinci* Surgery patients stated here do not reflect the opinions of Intuitive Surgical, Inc., and should not be considered as medical advice. Always ask your doctor about all treatment options, as well as their risks and benefits. Only your doctor can determine whether *da Vinci* surgery is appropriate for your situation.

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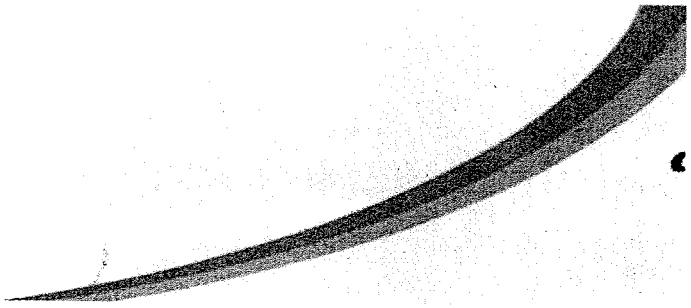

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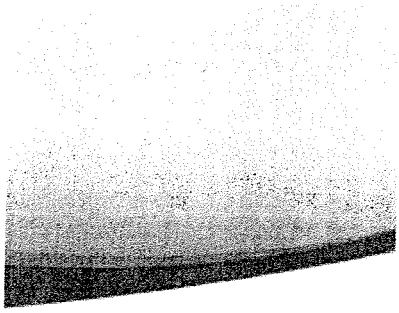

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da Vinci Surgery Patient Stories

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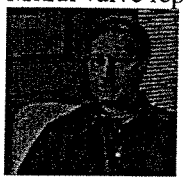
Showing 1 - 3 of 6 Results
PATIENT NAME:
Ray Spurlin
LOCATION:
Atlanta, Georgia
PROCEDURE:
Mitral valve repair



"The idea of being able to go in there at twelve times the scale (magnification) means that you can be so much

more accurate and so much more careful. That's got to lead to a better outcome."

Read Ray's Full Story
This story contains: Personal Story
PATIENT NAME:
Jane Robelot
LOCATION:
Greenville, South Carolina
AGE:
49
PROCEDURE:
Mitral valve repair

Read Jane's Full Story
This story contains: Personal Story
PATIENT NAME:
Lawrence
LOCATION:
Santa Barbara, California
AGE:
67
PROCEDURE:
Mitral valve repair

"There is absolutely no sense - if you are a viable candidate - to go in through the chest and all the pain, invasiveness, recovery time and everything else involved in that surgery. You may get a slightly better closure of the valve, but certainly not worth the aggravation, pain and recovery time that that involves. This is absolutely the best procedure."

Read Lawrence's Full Story
This story contains: Personal Story
Browse Stories: 1 , 2

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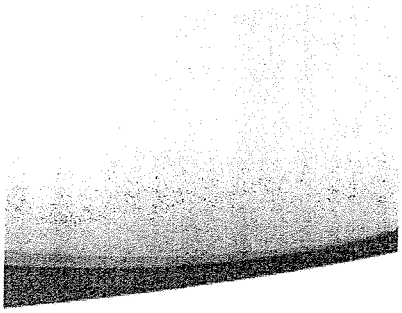

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da Vinci Surgery Patient Stories

Browse Stories: 1 , 2

Showing 4 - 6 of 6 Results
PATIENT NAME:
Kurt Salziger
LOCATION:
Corpus Christi, Texas
AGE:
52
PROCEDURE:
Mitral valve repair

"Instead of a fatal heart condition, I now have a corrected heart that is expected to provide 'significantly more energy' than I had before the operation. And recovery in a fraction of the normal time. Some people have all the luck. That would be me, fishing just 16 days after heart surgery."

Read Kurt's Full Story
This story contains: Personal Story
PATIENT NAME:
Terry Robinson
LOCATION:
N/A, California
AGE:
59
PROCEDURE:
Cardiac revascularization

"Robotic surgery, minimally-invasive surgery, was perfect for me for a couple of reasons: it fixed the problem in a way that seemed to be more permanent and sure than a stent ... and it gave me a different option than full open heart surgery."

Read Terry's Full Story
This story contains: Personal Story
PATIENT NAME:
Marianne
LOCATION:
Atlanta, Georgia
PROCEDURE:
Mitral valve repair

"I left the hospital without any staples or any stitches. I was totally free to go home and actually didn't have another appointment for another 6 weeks. This is the way to do it, if you can do it this way."

Read Marianne's Full Story
This story contains: Personal Story
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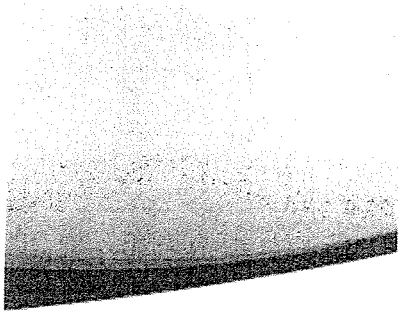

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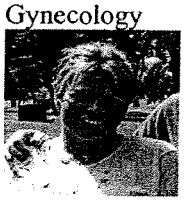
PATIENT NAME:
Dara M
LOCATION:
Las Vegas, Nevada
AGE:
37
PROCEDURE:
Hysterectomy

"I went home the next day, which was a Saturday. Basically, the first week I felt tired, I slept a lot. But, you know, kids, they don't stop, even though you've had a surgery. Both my kids had a massive stomach bugs that first week and I was able to care for them and be up and dealing with them."

Read Dara's Full Story
This story contains: Personal Story
PATIENT NAME:
Sharon Butz
LOCATION:
Canton, Ohio
AGE:
43
PROCEDURE:
Hysterectomy

I had a number of friends who had (traditional) hysterectomies, but I was holding out because I didn't want the lengthy recovery period, I didn't want to be laid up. I didn't see how I was going to be able to fit it into my schedule. Once I had it (da Vinci Hysterectomy), it was amazing!

Read Sharon's Full Story
This story contains: Personal Story
PATIENT NAME:
Bobbi
LOCATION:
Oakdale, Minnesota
AGE:
35
PROCEDURE:
Gynecology



"I have been struggling with tubal blockage for years, which has taken my fertility. (My physician) told me about the da Vinci Surgical System and told me that he was very optimistic that he could restore my fertility by repairing my tubes."

Read Bobbi's Full Story
This story contains: Personal Story
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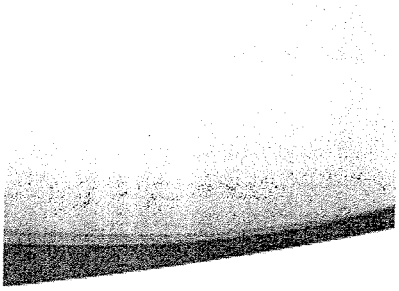

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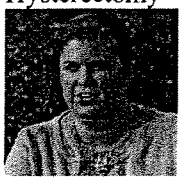
Showing 4 - 6 of 9 Results
PATIENT NAME:
DeLisa
LOCATION:
Albany, California
AGE:
45
PROCEDURE:
Hysterectomy

"For an active working woman, wife, mother and dancer, this was the way to go. I stayed one night in the hospital. Went home the next day and was on short road to recovery very quickly. I felt discomfort, not real pain. I couldn't believe it. After 3 weeks I was back to work as a surgical nurse, going to dance rehearsal, and trick-or-treating with my children. I had no complications, I was truly blessed."

Read DeLisa's Full Story
This story contains: Personal Story
PATIENT NAME:
Julia
LOCATION:
Orlando, Florida
AGE:
37
PROCEDURE:
Trachelectomy
Read Julia's Full Story
This story contains: Personal Story
PATIENT NAME:
Christina Clark Zoltec
LOCATION:
Kingston, North Carolina
AGE:
36
PROCEDURE:
Hysterectomy



"I had my son's birthday party, with the works, four days later. I was a little slow, but you know, I would have still been in the hospital if I'd had a traditional hysterectomy."

Read Christina Clark's Full Story
This story contains: Personal Story
Browse Stories: 1 , 2 , 3

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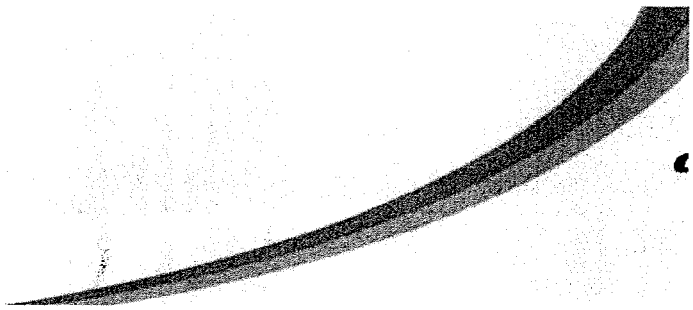

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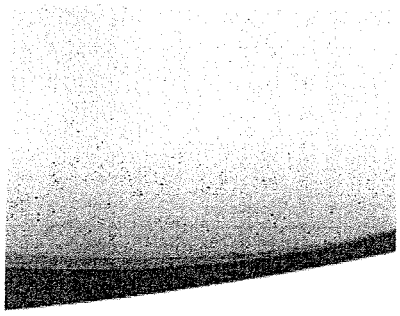

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PATIENT NAME:
Brenda Gordon
LOCATION:
Raleigh, North Carolina
AGE:
56
PROCEDURE:
Hysterectomy

"Technologic advances that limit healing time, blood loss, and what I consider to be a more 'sterile' approach to surgery gave me a tremendous advantage post surgery."

Read Brenda's Full Story
This story contains: Personal Story
PATIENT NAME:
Lillian
LOCATION:
,
PROCEDURE:
Hysterectomy

"I would not even consider going the old method. I like that robot, I really do. And, actually I have everybody saying, 'I want what you had!'"

Read Lillian's Full Story
This story contains: Personal Story
PATIENT NAME:
Sylvia Tippett
LOCATION:
,
AGE:
50
PROCEDURE:
Hysterectomy

"It's mind-boggling to me that I had a total hysterectomy and less than 24 hours later I was headed home and in less than 2 weeks I was back to normal activities."

Read Sylvia's Full Story
This story contains: Personal Story
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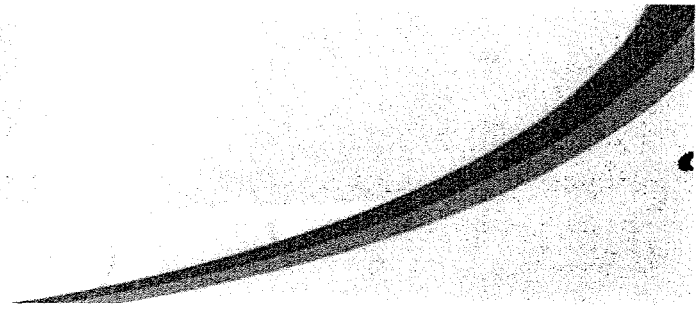

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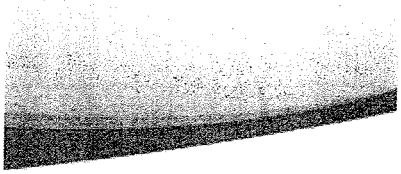

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da Vinci Surgery Patient Stories

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PATIENT NAME:
James Porter, M.D., da Vinci Surgeon
LOCATION:
Seattle, Washington
PROCEDURE:
Radical prostatectomy

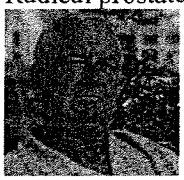
"The decision then was open surgery versus da Vinci Prostatectomy and when I looked at what I had been doing

and seeing the outcome of my patients, it was a no-brainer."

Read James's Full Story
This story contains: Personal Story
PATIENT NAME:
Dennis Murray
LOCATION:
Perris, California
PROCEDURE:
Radical prostatectomy

"It was pain-free. I was out of the hospital in a day and a half. Literally two weeks into my recovery I was building bird houses in my garage just to pass the time so I could get to the point were I would be released to go back to work."

Read Dennis's Full Story
This story contains: Personal Story
PATIENT NAME:
Pete Rabbitt
LOCATION:
Irvine, California
AGE:
63
PROCEDURE:
Radical prostatectomy



"When I woke up from the procedure, my pain level was minimal; just a little discomfort. I was surprised. I was quite surprised that I felt as good as I did. The quality of life with this procedure was fabulous."

Read Pete's Full Story
This story contains: Personal Story
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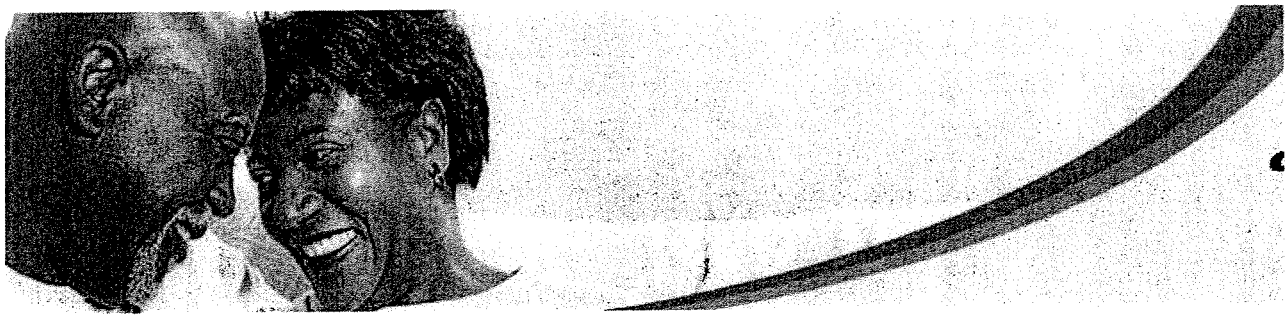

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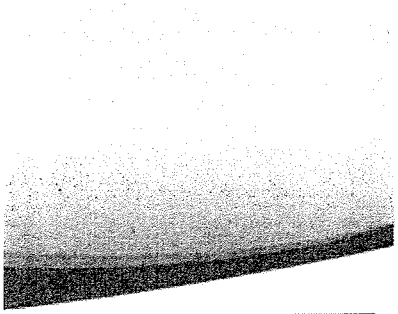

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PATIENT NAME:
Raymond
LOCATION:
Phoenixville, Pennsylvania
AGE:
56
PROCEDURE:
Radical prostatectomy

"Comparing this surgery to previous surgeries I have had, the recovery period was much quicker and with less pain and discomfort. I would definitely recommend the da Vinci surgery to others who are facing a similar problem."

Read Raymond's Full Story
This story contains: Personal Story
PATIENT NAME:
Sheldon Hough
LOCATION:
Yucca Valley, California
PROCEDURE:
Radical prostatectomy

"I feel as if have completely cheated cancer. I expected to experience a time where I would be completely incapacitated, followed by a prolonged period of healing, but that was never the case."

Read Sheldon's Full Story
This story contains: Personal Story
PATIENT NAME:
Howard Mandeville
LOCATION:
Smithfield, Virginia
AGE:
61
PROCEDURE:
Radical prostatectomy

"It appears to be the apex of technology."

Read Howard's Full Story
This story contains: Personal Story
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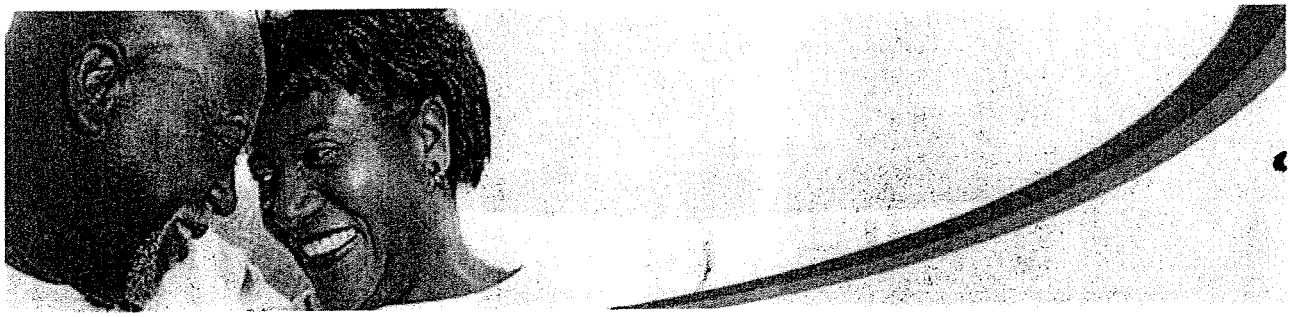

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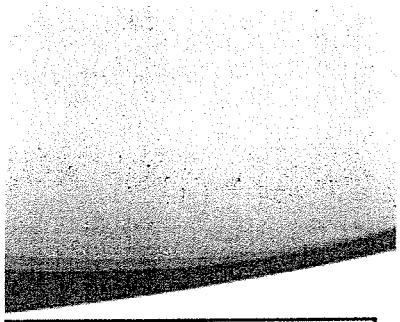

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da Vinci Surgery Patient Stories

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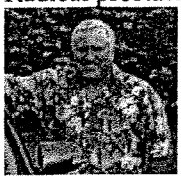
Showing 7 of 7 Results
PATIENT NAME:
Jon Gillis
LOCATION:
Issaquah, Washington
AGE:
59
PROCEDURE:
Radical prostatectomy



"The da Vinci robotic procedure for prostate removal, in this man's opinion, is the only way to go, in instances where a prostatectomy is chosen."

Read Jon's Full Story
This story contains: Personal Story
Browse Stories: 1 , 2 , 3

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da Vinci Surgery
Patient Stories

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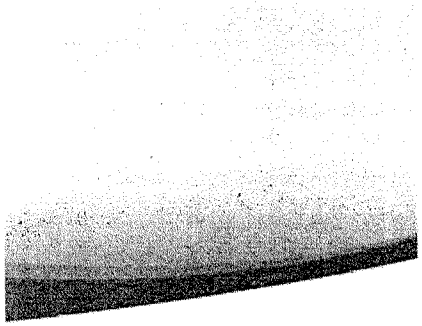

› IMPORTANT SAFETY INFORMATION

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Ray Spurlin

ABOUT RAY

PATIENT NAME:Ray Spurlin
LOCATION:Georgia
OCCUPATION:Other

IN THIS STORY:

- Ray's Situation
- About Ray's Surgical Experience
- Ray's Full Story

▸ FULL VIDEO & TRANSCRIPT

RAY'S SITUATION

MY RELATIONSHIP TO DA VINCI SURGERY: Patient

MY CONDITION: Heart Murmur / Irregular Heartbeart

TYPE OF PROCEDURE I HAD: *da Vinci* Mitral valve repair

ABOUT RAY'S SURGERY EXPERIENCE

HOW LONG I WAS IN THE HOSPITAL:
My surgery was on a thursday; they started about 11:30, finished about 3:30. By 8:30 that evening I was awake; by 11:30 that evening I was standing next to my bed; they had me sitting in a chair. Less than 24 hours after the surgery, I was in a private room, no longer connected to several tubes and so on, able to get up out of bed, ready for real food, ready to get on with it. Three and a half days after surgery I was released to go home, and it would have actually been a little bit faster if the releasing surgeon hadn't been called to an emergency and was unavailable.

ABOUT MY RECOVERY TIME:
I'm just short of five weeks out today. Four and a half. When I say I'm completely healed, I'm not ready to go out and go swimming. I still have, obviously, some minor wounds that are there. Most people, if they see me at a swimming pool this coming summer, won't be aware I had surgery.

HOW DA VINCI SURGERY COMPARED TO MY PREVIOUS EXPERIENCES OR PRECONCEPTIONS OF SURGERY:

I was in ICU (Intensive Care Unit) with people who'd had the traditional procedure where they went straight through the chest and split the rib cage, and I can tell you that those people who were in the ICU when I was there didn't seem to be in as good shape as I was, and they seemed to be in a good bit more pain and have a good bit more issues to work through in terms of trying to get better.

I WOULD RECOMMEND DA VINCI SURGERY TO MY FRIENDS OR FAMILY MEMBERS!

RAY'S FULL STORY

There are things that you can't do or that you must do because you have a procedure that cuts through your rib cage that just don't apply when no bone is involved.

Everybody that I've talked to (I've told that) this is really the way to do it, if there's any possible way to do it. It amplifies the surgeon's abilities, because of the computer controls it dampens any tremors that might be there. That makes them more sure and more confident. The idea of being able to go in there at twelve times the scale (magnification) means that you can be so much more accurate and so much more careful. That's got to lead to a better outcome.

I am just so happy. It has made a major change in my life.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

--o0o--

INTUITIVE SURGICAL, INC.,	)	
	)	
Opposer,	)	
	)	
vs.	)	Opposition No. 91175319
	)	Serial No. 78/728,786
DAVINCI RADIOLOGY	)	Published: 12-19-06
ASSOCIATES, P.L.,	)	
	)	
Applicant.	)	
_____	)	

CERTIFIED COPY

TESTIMONY DEPOSITION OF

STEVEN ANNEN

Wednesday, January 28, 2009

REPORTED BY: DEBRA ALLUSTIARTI CSR 10929 JOB 416322

I N D E X

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EXHIBITS MARKED FOR IDENTIFICATION

No. Description Page

(None offered.)

--o0o--

--o0o--

Deposition of STEVEN ANNEN, taken by the Opposer, at 1266 Kifer Road, Sunnyvale, California, commencing at 10:05 a.m., on Wednesday, January 28, 2009, before DEBRA ALLUSTIARTI, CSR, pursuant to notice.

--o0o--

A P P E A R A N C E S

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By: MATTHEW T. VANDEN BOSCH, Attorney at Law

--o0o--

SUNNYVALE, CALIFORNIA; Wednesday, January 28, 2009

10:05 a.m.

--o0o--

STEVEN ANNEN

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called as a witness by the Opposer, who, having been first duly sworn, was examined and testified as follows:

EXAMINATION BY MS. HIRTH

MS. HIRTH: Q. Please state your name for the record.

A. Steven Annen.

Q. Who is your current employer?

A. Intuitive Surgical.

Q. Could you state your current business address, if you know?

A. Yeah. 1266 Kifer Road, Sunnyvale, California 94086, I think, is the zip. I'm not sure of the zip.

Q. Have you ever had your deposition taken?

A. No.

Q. Have you ever given testimony at trial?

A. No.

Q. So I'm going to generally kind of go through some ground rules; some of which I forgot yesterday, so I'll try to get them all.

A. Okay.

Q. You've taken an oath, so --

A. Yes.

Q. -- we want your honest and best testimony.

A. Okay.

Q. We want to make sure that the court reporter and Mr. Vanden Bosch can hear your answers. So rather than nodding your head or shaking your head, make sure to make audible answers.

A. Okay.

Q. Also, because the court reporter has to be able get down everything that you and I say --

A. Right.

Q. -- I'm going to try not to step on your words and --

A. Okay.

Q. -- if you could try to do the same, that will help. We'll try to remind you if that happens to me or you.

A. Okay.

Q. I'm going to ask for your best memory, but I don't want you to guess.

A. Okay.

Q. If you have an estimate in answer to something, then, certainly, you can give an estimate.

Just let us know you're doing that.

A. Okay.

Q. The most important thing is, if you need to take a break, let us know. And I've also mentioned this in the past to the court reporter, if she needs to take a break as well.

And I think the only other thing is that if, as we go along later on in the testimony, you suddenly remember something that you want to add with regard to a question that was asked previously, certainly, don't hesitate to interject and tell us what that is. So that's perfectly fine.

A. Okay.

Q. Have you taken any medication in the last 24 hours?

A. No.

Q. Is there anything else that you're aware of that could somehow affect your memory or your ability to testify today?

A. No.

Q. Okay. Could you just describe for us, briefly, your educational background?

A. Sure. I have a bachelor's degree in mechanical engineering and a master's degree in mechanical engineering. My master's had a focus on

robotics.

Q. And from where did you obtain your bachelor's degree?

A. Bachelor's degree was from Rutgers University in New Jersey, and my master's was from the University of Wisconsin in Madison, Wisconsin.

Q. Have you had any other significant training with regard to your job here?

A. No.

Q. When I say "here," I should apologize and say I mean Intuitive Surgical.

A. Right. No. A seminar here and there, but nothing significant.

Q. Can you briefly describe your work history prior to joining Intuitive Surgical?

A. Yes. I worked at an industrial robotics company named Adept Technology -- which was based in San Jose, California -- for about 10 years from 1988 to '97. I left there -- and I had a number of positions in the company through application engineering, product marketing and sales management.

I left there and worked for some small companies in the automated vision-system inspection area.

Went back to Adept Technology for

approximately four years. During that time, I was the director of marketing.

And then I left there, worked for a scientific instrumentation company, Veeco Instruments, in Santa Barbara, California.

And then moved back here to the Bay Area and obtained the job at Intuitive Surgical.

Q. When did your employment with Intuitive Surgical begin generally? You don't have to give me a specific date.

A. It was October of 2005.

Q. And what was your job title at that time?

A. Same job title I have today: director of marketing for product development.

Q. Is there any other job title that you have held or by which you are known at Intuitive?

A. I think my card actually says "director of product development," but -- because that is, you know, a term that other people use inside the company -- I like to specify by director of product development, product marketing -- director of product marketing.

Q. So if I refer to you as the director of product marketing and the director of product development, that would be okay?

A. It's basically the same, yes.

Q. What are your job duties as the director of product marketing and the director of product development?

A. My job duties are to manage the product management group and also the technical publications group that creates the user manuals and instructions for use of all our products. So the product management group is that group that works as a focal group within the company to understand what new products customers would like to see, what product improvements or enhancements customers would like to see. We define those.

And then we, basically, document those requirements, work with engineering to define a product, and then when the product is ready, we then roll that out and do training to our sales force and our customers.

So we help define the products at the front end, and then we help roll them out to the customer at the back end.

Q. You mentioned training of the sales force.

A. Yes.

Q. Can you describe for me your duties, specifically, with regard to the sales force?

A. We -- yes. We create marketing material,

product documentation, and we distribute that to the sales force through e-mail communications, through conferences, and then also at our worldwide sales meetings -- we have two of those a year -- so we put on product training events at those meetings to train them on all of the product features, enhancements, capabilities of our system.

Q. Just so I understand, is the sales force under your direction?

A. No, it's not. It's under a sales management team.

Q. Are you familiar with the work that the sales force does?

A. Very much so. I communicate with them probably every day.

Q. Now, let me ask you -- I'm going to change topics slightly -- are you familiar with Intuitive's surgical systems?

A. Very much so, yes.

Q. Can you briefly just describe the systems for me?

A. Sure. So today our system is called the da Vinci S -- we have da Vinci S surgical system and the da Vinci S HD surgical system. The reason there's a difference is, the HD means high definition vision. So

customers can buy a version without the HD or with high definition; that's with HD.

Those are basically the two systems we sell today, and they consist of three components: The surgeon console, where the surgeon sits to manipulate what we call masters or joysticks; the vision cart, which is where the vision electronic components are stored; and then the third component is called the patient-cart manipulator that basically holds the EndoWrist instruments, which are the wristed instruments that the surgeon controls from his or her surgeon console, which goes inside the patient and basically performs the surgery.

Q. You said that the da Vinci S and the da Vinci SD --

A. HD.

Q. -- are the systems you sell today.

A. Yes.

Q. In the past, have there been any other systems sold?

A. Yes. The original system was -- basically, started selling in 1999. It was called a da Vinci surgical system. Now that we have the da Vinci S system, we refer to it as the "standard system." So you'll hear people saying, I have the standard; or, I

have the S; or, I have the S HD. So, basically, there's three systems out in the field installed at customer sites.

Q. Are there any other names or brands -- other than, I think, you've mentioned da Vinci S, da Vinci S HD and da Vinci -- under which the systems are known?

A. The EndoWrist instruments are -- is the brand for our wristed instruments. Our -- the vision system that goes with the standard system is called the InSite Vision, I-n-S-i-t-e. We also use the da Vinci brand for a new system. It's an instrument-cleaning system called the da Vinci SonicPro.

Q. Is there -- well, let me ask you this: Are the da Vinci S, da Vinci S HD and the da Vinci system similar enough that when we talk today, that I can refer to them all as "da Vinci"?

A. That's what we do internally, and that's what customers do as well.

Q. I just want to make sure I can do that, and I will do that throughout the testimony today. But if there is a reason to distinguish them when we're discussing these things, just let us know.

A. I will.

Q. As the -- well, I think I've already asked you that, so let me back up.

Can you just briefly tell us the differences between -- and very basically, obviously -- between the da Vinci system and the da Vinci S system?

A. Yes. So the da Vinci S system enhancements were primarily to make it easier for the -- what we call the OR staff -- the operating room staff -- to use the system. So the standard da Vinci system had to be pushed into place -- it was quite heavy -- and so we reduced the height and weight of the system. We also put a motorized control, so it could be easily moved inside of the operating room so that -- typically, there are small nurses being asked to move this into place -- so the motorized control makes it easier to move towards the patient.

In addition to that, we increased the range of motion of the arms of the da Vinci and extended the lengths of the instruments so that surgeons could reach into -- have a larger range of motion to do surgery without having to make changes to the setup arms of the da Vinci, and we made it easier to, basically, position the arms for surgery.

We also did -- again, to make it easier for the OR staff to use the system, we improved the user interface, the icons; and we also put LED status lights on each arm, so the people interfacing with the arms

themselves could identify the status of the arms.

For the surgeon console, we created a technology we call TilePro, which allows for up to two video inputs to be connected to the system, so that the surgeon could see, basically, these auxiliary video inputs -- typically, they're ultrasound or patient hemodynamics -- and they can see that within the console -- they could be pre-op imaging; I think I mentioned ultrasound -- so that surgeons would not have to move their head out of the console, but could do a quick click with their left foot on a pedal, and then they could see these auxiliary images at the same time as the surgical field.

So they could bring information -- this eliminates the need to pull their head out of the console, which is removing their eyes from the surgical field, to go look at monitors that are in the room. So we're basically taking monitors that were in the room and putting them inside the view of the surgeon console.

Q. Is the system -- the da Vinci surgical system that I think you referred to as the "standard system," is that still in use?

A. It is still in use in the field. Many surgeries are being done -- many, many surgeries are being done with the standard version in the field.

That's right, yes.

Q. And, of course -- well, I shouldn't say "of course" -- is da Vinci S system also in use currently?

A. Absolutely, da Vinci S and HD. All three are in use and doing -- performing all the same surgeries. So all the same kinds of surgeries are being done with the three different platforms.

Q. Okay. Now, do you have an understanding -- well, let me back up.

You use -- you've told us that you use the term "da Vinci" for the surgical systems.

A. Yes.

Q. Do you have an understanding that, at some point in time, Intuitive Surgical adopted that term for use with its surgical systems?

A. Yes.

Q. Do you have an understanding of the basis upon which that term, or mark, was adopted?

A. Yes.

Q. Can you tell us what that understanding is?

A. Sure. My understanding is that, you know, Leonardo da Vinci -- it was based on Leonardo da Vinci. The reason was -- he was, obviously, considered a Renaissance man; that he was a mathematician, a scientist, an engineer, an inventor; he studied anatomy;

obviously, he was an artist as well -- but because he had some of the early designs of machinery and robotics, but also studied the human body, it was just very logical that the -- this system, which is a master-slave robotic system used for surgery, you know, be called -- be attributed to him or use his name.

Q. Great. As the director of product marketing and director of product development, are you generally familiar with all of the items that Intuitive offers under "da Vinci" or otherwise?

A. I'm responsible for all of them, right.

Q. What other products, other than the surgical systems, does Intuitive offer? Some of these you may have touched on already.

A. So in addition to the da Vinci surgical systems, we have the EndoWrist instruments, which are the instruments that work on the system. We have accessories, which are disposal drapes and disposal accessories, that are used in every procedure that the da Vinci is used with. We have the da Vinci SonicPro instrument-cleaning system, which is used in a different part of the hospital -- it's used in the central processing group, or department, in the hospital -- and that has the da Vinci name.

We also have basic services product -- I

would call these -- they're not official products, but they're basically services and initiatives. So we have a da Vinci online community where -- this is open to surgeons and nurses, who are called, what we call, "da Vinci coordinators," who are basically the focal point inside of a hospital to make sure that the da Vinci systems are working properly -- and it's an online community where everyone joins and shares ideas; an online forum. We have da Vinci robotic coordinator courses. Then we have -- I think that that's what -- and then we have -- no, that's it. That's what I can remember.

Q. Okay. That's perfectly fine.

Can you tell me -- you said da Vinci SonicPro is somehow used in the central processing area of a hospital?

A. Yes.

Q. Can you tell me how it's used?

A. Sure. So our instruments are reusable up to a number of lives. Some 10 lives; some 20 lives. So they have to be, basically, flushed out and cleaned through a certain process before they can be used again. And so there is a manual process -- which is documented -- which requires flushing, putting in an ultrasonic cleaner, then flushing again, and, basically,

drying.

The da Vinci SonicPro instrument-cleaning system basically automates the majority of that process, so people in the department can load it into a rack, close the door, and all of those steps I described are done automatically. So that is marketed to, in this case, where da Vinci is marketed to surgeons and hospital administrators, the SonicPro is marketed towards central processing managers and hospital administrators. So additional folks inside of a hospital.

Q. I wanted to ask you, also, if you can: Do you know when Intuitive started offering da Vinci SonicPro or goods under da Vinci SonicPro?

A. Yes, we made that available for quotation in November 2008.

Q. What does that mean, when you said "made available for quotation"?

A. Basically, we went to our sales force and said, You can basically now promote this product to the customers -- to the hospitals, and we can now generate quotations so that they can basically start to budget for this product. And we have shipped -- since then, we have shipped multiple systems.

Q. When you say "shipped," does that mean

you've sold --

A. We've sold and installed multiple SonicPro systems.

Q. With regard to the da Vinci online community, is that -- how does that work? How do people, I assume, take part in that?

A. Yes.

MR. VANDEN BOSCH: Objection, personal knowledge.

MS. HIRTH: Q. Well, let me ask you: Are you familiar with the da Vinci online community that you described for us previously?

A. Oh, yes.

Q. How are you familiar with it?

A. Basically, I've been involved with the marketing group when it was created and sort of tested, and I'm basically -- my group has a log-in that my group -- members of my group can log in and look at the discussions that are happening.

Q. So can you describe how the da Vinci online community works?

A. Yes. Basically, it's like some of the other forums that exist -- like a FaceBook, where people join and they have a profile -- and then people can come on, and there's different forum discussions about, say, OR

efficiency; or surgeons may talk about cardiac surgery, or urologists may talk about urologic surgery.

So that's, you know, basically -- what we do as product managers, as product development people, we go in and look at what people are saying about how the products are working.

Q. Have you logged on to --

A. I have.

Q. -- the online community?

A. Yes.

Q. Sorry. When one logs on, is there a screen that comes up once you log in?

A. Yeah, there's basically like a home page, if you will.

Q. What does one see on the home page?

A. Basically, it just shows the various areas of interest you could join; the different groups you could join. Again, if you are interested in how to be a coordinator, there's a whole area about being a da Vinci coordinator; if you're interested in cardiac surgery or gynecology surgery; there's, basically, just different forums you can join.

Q. Is there something identifying it as this online community?

A. Oh, yeah, very top -- da Vinci online

community at the very top.

Q. I think you mentioned the term "da Vinci coordinator" earlier?

A. Yes.

Q. Can you tell us what that is?

A. So a da Vinci coordinator at a hospital -- the hospitals that are very well organized around da Vinci surgery will identify a nurse, who is an expert using the da Vinci system -- sometimes it's just one person or other times it's a person per specialty; one for urology, one for gynecology, one for cardiac -- and that person's job is just to, basically, make sure that everything runs smoothly. That the robotic surgery time -- you know, scheduling is correct; that the equipment is running properly; that all of the instruments and accessories that are needed are running properly; that all the instruments and accessories are processed properly.

So a da Vinci coordinator -- so that person is a focal point and responsible -- accountable -- for the success of the da Vinci system. So the hospitals that are very well organized, really understand the investment, will have a person -- promote a person to be a da Vinci coordinator.

Q. You said something about training of

da Vinci coordinators. Can you tell me about that?

A. Yes. So we conduct training for da Vinci coordinators here in Sunnyvale and also in Hackensack, New Jersey, at one of our training centers. It's about once a quarter. It's very well attended. I, personally, go to every one of those trainings for a short time and meet the robotics coordinators. There is at least one of my group members in every training course, and we basically talk about our products. They learn a lot about -- they learn about anatomy, about troubleshooting, and my group will come in and talk about new products.

Q. Who attends those training sessions, other than you and your group?

A. Yeah, so it is -- the da Vinci coordinator courses are coordinated or facilitated by our training department. Then we have people from our field service organization to do troubleshooting training. From my group, we have surgeons that come and do training. So it's a wide variety of presenters.

Q. You said "presenters." Are there attendees that aren't presenters?

A. No, all the attendees are da Vinci coordinators.

Q. Okay. Understood. I'm going to switch

gears a little bit.

A. Sure.

Q. Are you familiar with when Intuitive began using the term "da Vinci"?

A. What I'm familiar with is, that back in '99 and 2000, is when we started to get some of the approvals -- from CE mark approval and FDA approval -- and our first systems were shipped in mid to late 1999.

Q. When you say your "first systems," which of the systems we've talked about are you referring to?

A. The standard system.

Q. So the standard da Vinci system?

A. The standard da Vinci system, yes.

Q. Has Intuitive continuously offered that standard da Vinci system since that time?

A. Yes, yes.

Q. When did Intuitive begin offering goods under the brand "da Vinci S"?

MR. VANDEN BOSCH: Objection, personal knowledge.

MS. HIRTH: Q. Let me ask you this way: Do you have an understanding of when any of the da Vinci surgical systems were launched by Intuitive?

A. Yes, I have -- I mean, I know the history of the product launches because that's my job.

Q. Okay.

A. And I joined the company in October of 2005, and I was personally responsible for launching the da Vinci S, in January of 2006, at the January 2006 worldwide sales meeting.

Q. So when did Intuitive Surgical begin offering surgical systems under the term "da Vinci S"?

A. January 2006. There is a press release in the first week of January that launches -- basically stated that we launched the da Vinci S system.

Q. Has Intuitive continuously offered goods under the "da Vinci S" brand name since that time?

A. Yes.

MR. VANDEN BOSCH: Objection, leading.

MS. HIRTH: Q. When did Intuitive begin -- let me ask you this: Do you have an understanding of when Intuitive began offering goods under "da Vinci S HD"?

A. Yes.

Q. When was that?

A. That was in January of 2007. We announced da Vinci S HD at our worldwide sales meeting.

Q. Does Intuitive continue to offer goods under the "da Vinci S HD" brand?

A. Yes.

Q. Has that continued throughout the time -- from the time it was offered initially to date?

A. Yes.

Q. Now, can you just sort of give me a general understanding of -- for what the da Vinci surgical systems are used?

A. Yes. So all da Vinci surgical systems are used for minimally invasive surgeries in several specialties. Our highest volume specialty is urology, and the highest volume procedure inside of urology is prostatectomy, which is removal of the prostate gland. In addition, it is used in urology for total nephrectomy, total removal of the kidney; or partial nephrectomy, which is removal of a tumor from a kidney. It's also used in pyeloplasty, which is a reconstruction of the ureter as it connects to the kidney. There's some other smaller volume urology procedures; some in pediatrics.

In gynecology, procedures da Vinci is used for are: Hysterectomy, both for cancer-related hysterectomy and also for benign conditions. Another procedure in gynecology is a myomectomy, which is removal of uterine fibroids. A third procedure in gynecology is sacrocolpopexy, which is a therapy for vaginal prolapse. And then there's some other smaller

gynecology procedures.

In cardiac surgery -- cardiothoracic -- the da Vinci is used for mitral valve repair. Also used for revasc or coronary bypass surgery and also used for lobectomy, which is basically a resection of lung. And then there's several other smaller procedures.

In colorectal surgery, the da Vinci is used in low interior resection, which is a resection of the colon for colon cancer.

Then in general surgery -- again, there are a number of pediatric surgeries -- but in general surgery, it's used for gastric bypass, and a surgery called Nissen's fundoplication; and that's basically a surgery having to do with fixing the esophagus. So that's basically the vast majority of the procedures that are done with the da Vinci system.

Q. Great. Thank you.

Now, as the director of product marketing and director of product development, are you familiar with the sales of da Vinci surgical systems?

A. Yes, I am.

Q. And I think you told us a little bit about that earlier.

A. Right.

Q. How are da Vinci surgical systems offered

for sale?

A. So we have a direct sales through the U.S. and part of the rest of the world, where we market to surgeons and to hospital administrators, basically showing them the clinical capability of the da Vinci system and basically getting their help and basically encouraging them to invest in a da Vinci system to improve surgery and surgery outcomes at their hospital.

So we have a sales force that exists of a capital-equipment selling group, and another part of the sales force that is what we call the clinical sales group, which works with the surgeons -- once they have, basically, purchased the system -- to train them and bring them up to speed and have them start doing procedures.

Q. Can you describe for me how -- I think you called it -- the capital-equipment sales group works?

A. Yes. So it's a group of people that are focused in -- again, we have the U.S. and outside the U.S. -- and they, basically, have targeted hospitals that they work on. And they basically develop -- it's really two possible ways. One way is that they work with surgeon champions and have the surgeon champions help them sell the idea of buying a da Vinci to the administration. In other cases, our folks work directly

with the administration -- and there are many high-level executives at hospitals that feel very strongly about investing in the da Vinci -- and then they, basically, convince the surgeons in the hospital to adopt da Vinci. So it works either of those two ways. Or everyone in the hospital wants to buy da Vinci, and it's easier.

Q. You also mentioned the clinical sales group. Can you describe how the clinical sales group does their work?

A. So the clinical sales group is responsible, once a da Vinci is installed at a site, is to work -- basically work with urology surgeons, gynecology surgeons, cardiac surgeons and colorectal surgeons to train them. We have what we call a "clinical pathway," which is a defined path to take to learn how to use da Vinci, and, basically, go through that process. They work shoulder to shoulder with the surgeons to take them through the training, to help them -- we bring in outside experts, outside proctors to help the surgeons go through their learning curve and then support the surgeons as they, you know, continue on to use the da Vinci. And then those surgeons may branch out and do other procedures within their specialties.

Q. You said the force helps support surgeons; how is that done?

A. How the clinical sales force?

Q. Yes, I'm sorry. Yes.

A. They basically do that by training them on the system, attending training with them, going to conferences with them, showing them the clinical papers that show the better outcomes with da Vinci. They also help them -- they also help them, basically, market themselves in the community because it's important for the surgeons -- they have to, obviously, get patients to perform surgery on, so our salespeople help them.

We have a marketing tool kit that, basically, helps surgeons, basically, create a web presence, whether it be a hospital -- so in some cases, the hospital does the da Vinci marketing and uses materials that we've created; templates that we've created. Sometimes the surgeon practice -- there will be a group of surgeons that have a practice, and they will market their practice using the da Vinci surgery materials that we've created.

And then our salespeople also help them go out to the community and do, basically, you know, sessions, where they are trying to get -- they're trying to educate referring physicians -- urologists to refer patients to them -- for whatever their surgery specialty might be. So they're out there in the community

marketing da Vinci along with the surgeon and surgeon's practice.

Q. I think you said they are trying to get referring surgeons to --

A. Yes.

Q. How is that part of it done?

A. Basically, just, you know, public awareness. We will bring one of our -- we have mobile systems that go out. We have mobile systems throughout the country. So if a surgeon, who wants to develop his da Vinci practice, wants to have an event, we'll try to bring our mobile system into the area so that these referring physicians can test-drive the system to appreciate the key benefits of the da Vinci system.

Q. You said the mobile systems go out to the area. Where do they go?

A. To a hospital. We have sent them to public events as well; to sporting events, to a -- I believe there was a metro stop somewhere. I've just heard stories, but ...

Q. Okay. Now, you may have described this earlier, although I want to sort of make it clear: To whom are the da Vinci surgical systems sold?

A. They are sold to hospitals, and they are -- basically, the hospitals are buying the da Vinci systems

and --

Q. And who -- I'm sorry.

A. Go.

Q. Who are the actual end users of the systems themselves?

A. So the surgeons are the actual end users and the OR staff that supports the surgeon. For da Vinci SonicPro, the end user is the central processing departments inside of the hospital.

Q. Can you -- if you know, can you explain what a central processing -- I think you called it a department -- is in a hospital?

A. Yes. Basically, it's a location where all of the instruments and accessories that are reusable that need to be cleaned and sterilized -- so they can be used again for surgery -- basically, it all comes to the central processing department. And, again, these instruments and accessories are cleaned, flushed, sterilized, so that there is -- all of the -- any biomaterial is completely flushed out and killed, and the instruments can be used again.

Q. Through your work at Intuitive, do you have an understanding of who works in a central processing department of a hospital?

A. Yes. I mean, basically, they are hospital

staff that are trained to follow these cleaning and sterilization tools. I don't know their degrees or anything like that.

Q. Do you know whether they're physicians or not?

A. They are absolutely not physicians.

Q. Now, other than what you've already mentioned, are there any health-care professionals to whom Intuitive sells its da Vinci surgical systems?

A. Only -- again, in the hospitals, to surgeons -- to surgeons and to hospital administrators.

Q. Are these systems used by dentists?

A. No.

Q. Are they marketed to dentists?

A. No.

Q. Now, once the da Vinci system has been sold, I think you said, to hospitals --

A. Yes.

Q. -- does Intuitive remain in contact with the purchaser?

A. Oh, absolutely, yes.

Q. For what purpose?

A. For several purposes. So as I said, the clinical salespeople work shoulder to shoulder with the surgeons to train them. Our clinical salespeople also

work shoulder to shoulder with the operating room staff to make sure they understand how to use the system on a day-to-day basis. The clinical sales force works shoulder to shoulder with the da Vinci coordinator to provide any sort of additional support or training to make sure that person is as successful as possible.

We also have a field engineering organization which repairs the system, if there's any issues with the system, and they are locally based. And so there is a relationship between our field engineering people and the da Vinci coordinator and also other staff within the hospital that's responsible for upkeep of equipment.

Q. You mentioned, I think, a field engineering staff. I'll use that term.

A. Yes.

Q. You said they're locally based.

A. Yes.

Q. When you say "locally based," locally based where?

A. Near the systems. So our clinical sales people and our field engineering people are basically located throughout the country nearby the systems so that they can, basically, get to the hospitals -- nearby hospitals -- so they can get to the hospitals, you know,

within minutes and hours.

Q. Okay. Are these field engineering staff -- are they -- do -- are they always present in a local area that has a da Vinci system? What I mean by that, I don't mean "always" in time. Is there always a field engineering staff somewhere in the locale where a da Vinci system is currently in use?

MR. VANDEN BOSCH: Objection, leading and compound.

MS. HIRTH: Q. You can go ahead and answer.

MR. VANDEN BOSCH: Vague.

THE WITNESS: That's the way that the service organization is designed; is to have local sales people and local field engineering people be assigned to be able to support the hospitals.

MS. HIRTH: Q. Do you know if there are any local field engineering staff persons in Florida?

A. Yes.

Q. Do you know -- if you don't, that's okay -- do you know where they're located in Florida?

A. No. I know where the -- no, I don't. I know where the clinical sales people are located. I don't know where the field engineering people are located.

Q. Are there clinical sales people for da Vinci

surgical systems based in Florida?

A. Yes, that's right. There is.

Q. Do you know where they're located?

A. I know where some of them are located. Some are located in Boca Raton; some in Tampa; some in Orlando. Some of the people that I personally know.

Q. Now, you mentioned training of physicians. I think you mentioned maintenance and training of the da Vinci coordinator as ways in which Intuitive stays in touch with the purchasers of da Vinci systems.

A. Right.

Q. Are there any other purposes for which Intuitive stays in touch with the purchasers?

MR. VANDEN BOSCH: Objection, asked and answered.

MS. HIRTH: Q. You can answer.

A. We have a -- for each system, there is an annual service contract. And so each year, when the service contract is up for renewal, we will contact them directly from the field or here from our customer service organization.

Q. You also mentioned a -- I think you said a marketing kit?

A. Yes.

Q. Can you explain to whom that's given?

A. So the marketing -- when a hospital invests in a da Vinci system, our sales force encourages them to take the opportunity to market da Vinci as part of their new technology that the hospital has and to market surgeons that they have that are now da Vinci surgeons. So we've created a -- materials and a CD, which includes templates for all of the different marketing materials.

So the answer is: We work directly with the marketing department of the hospital, and we basically give them a lot of the sample advertisements, sample press releases. We give them what is called "B-roll" -- which are, basically, video clips -- that they can use to facilitate a local news story about the hospital and da Vinci.

Q. Who is the target audience for these materials?

A. It would be the administration and the marketing department of a hospital.

Q. In your role, are you familiar with what it is that the administration and the marketing department of the hospital does with these materials?

A. I've seen the end results. I've seen the commercials, and -- I've seen the commercials and the advertisements and sample billboards that have been created through the use of the tool kit.

Q. To whom are the billboards that you've seen targeted?

A. Patients, right.

Q. To whom are the advertisements that you've seen marketed?

A. Patients, right.

Q. And I'm trying to remember what the third thing is you mentioned. I want to say you said TV commercials?

A. Yeah. There's TV commercials, radio commercials, billboards, newspaper advertisements.

Q. To whom are all of these items targeted?

A. These items are all targeted to patients to build patient awareness; or, basically, family members of patients.

Q. Does Intuitive intend to continue its work with hospitals in terms of marketing?

A. Absolutely, yes.

Q. Now, when -- what is provided upon sale of an Intuitive da Vinci surgical system to the purchaser?

A. What's provided is a da Vinci system. They also order a set of instruments and accessories, so they can immediately begin performing procedures, and the -- we provide documentation of all of the equipment. We also provide the marketing tool kit, so that they can

begin -- or we have already provided that to them -- so that they can begin their marketing efforts.

Q. You mentioned "documentation." What documentation is provided?

A. With all of the systems that we provide, we provide a user manual, and then we also provide documentation for the instruments. We have developed, in my group, quick-reference guides, which are attached to the system, which provide an easier way to understand how the equipment works.

Q. What do -- I think you called them -- user manuals look like?

A. They're -- the user manual for the da Vinci S HD is approximately 150 to 200 pages, goes in a big three-ring binder, and it's available on the system. So if people have any questions how to use it, they can use that.

Q. Is there a way that people can tell it's the user manual that has been provided with the system?

A. Yes, it's -- we use the da Vinci logo in everything for the -- to identify it as da Vinci user manual.

Q. Where is that logo used?

A. Right on the front cover and throughout the document.

Q. You mentioned reference guides. What do they look like?

A. So quick-reference guides are usually laminated cards -- they can be one or two or three cards -- and they have the da Vinci and Intuitive Surgical logos, and they, basically, will highlight a particular aspect of the system. So it could be for what we call a presurgery checklist. It could be for TilePro quick-reference guide -- the video input feature that I explained -- that has a quick-reference guide. And we have a troubleshooting flow chart that the training department has put out which basically has the same branding.

Q. Great. Who uses the troubleshooting flow chart?

A. So that is used, basically, by the da Vinci coordinator and the OR staff.

Q. Who uses the quick-reference guides?

A. The same people: the OR staff and the da Vinci coordinator.

Q. Who uses the user manual?

A. The same -- the same group of people.

Q. Now, you mentioned earlier that the da Vinci surgical systems are sold to hospitals.

A. Yes.

Q. Where are the hospitals, to which these systems are sold, located?

A. We target hospitals everywhere that we have clearance, so we have clearance in the U.S., of course, and in many of the countries of the world; most of the European countries. Because we have CE approval, we can market it to the EU. And now we're also selling into Asia in those countries that we have approval -- say, Korea -- and other countries. So, basically, around the world.

Q. You say you target hospitals. How do you go through the process of targeting the hospital? And I don't want details, but in general.

A. In general, what I understand from the capital sales force is, they target hospitals of a certain size, have a certain number of beds --

MR. VANDEN BOSCH: No personal knowledge.

MS. HIRTH: Q. You can answer.

A. -- and have a certain number of operating rooms.

Q. Let me ask you this, Mr. Annen: Are you here today testifying as an employee of Intuitive Surgical?

A. Yes.

Q. So you're here testifying, is it your

understanding, as a representative of Intuitive Surgical for these purposes?

A. Yes.

MR. VANDEN BOSCH: Objection, leading.

MS. HIRTH: Q. Now, you mentioned that hospitals in metropolitan areas, I think you said, are targeted.

A. Yes.

Q. Are there particular areas of the United States that are targeted more than others?

A. No, they're all -- everyone in the United States is targeted equally.

Q. Do you have an understanding of where, generally, in the United States da Vinci surgical systems are currently in use?

A. Yes, I do.

Q. And are there areas that have more systems than other areas in the United States?

A. I'm sure there are. I don't know -- I don't know the details.

Q. Okay. Do you have an understanding of the frequency of use of the da Vinci surgical systems in the United States? When I say that, I mean numbers of procedures.

A. Yes, I do. I have that in -- I do have

knowledge of that, and, also, is information that has been available -- for 2008, has been available publicly.

Q. Can you give me an idea of your understanding of that?

A. The information that I've seen that's public information is that -- for prostatectomy procedures and for gynecology procedures. Prostatectomy procedures were somewhere around 70,000 procedures in 2008, and gynecology procedures for hysterectomy were somewhere in the 30,000 range.

Q. Do you have an understanding of whether these procedures -- the numbers of these procedures are fairly uniform throughout the United States?

A. Yeah, I can't say that one way or the other.

Q. Do you have an understanding -- well, let me back up and ask it to you this way: Can you give me an example of, if you know, of areas around the country that are -- that have, say, a higher volume of procedures than others, if you know?

A. Yeah, I don't know exactly. I know some areas. You know, we have our U.S. broken up into different regions, in six regions. So I know that some regions have been growing faster than other regions.

Q. And what is your knowledge with regard to some regions growing faster than others?

A. I know that the southeast region -- southeast part of the country -- has been growing well -- been growing more than other parts of the country.

Q. Do you know what states are included in that southeast region?

A. Florida, Georgia, South Carolina, Mississippi, Alabama.

Q. Do you have an understanding of how many da Vinci surgical systems are currently in use in Florida?

A. Yes.

MR. VANDEN BOSCH: Objection, asked and answered.

MS. HIRTH: Q. And how do you have that understanding?

A. I have information about the installed systems in the country. It's actually public information on our Intuitive Surgical web site.

Q. How many da Vinci surgical systems are currently in use in Florida?

A. There are 55 da Vinci systems in Florida.

Q. When you say "da Vinci systems," are we talking about all three of the types we've discussed?

A. All three, yes.

Q. Do you have any understanding of the number of procedures done on those systems -- I don't know -- let's say in 2008?

A. I do, but that's -- I can't share that publicly.

Q. I'm glad you said that. Okay. No problem.

Do you have an understanding of where some of the da Vinci systems in Florida are located?

A. I do. They are throughout the state.

Q. How do you have that understanding?

A. There's -- again, through our web site, once a hospital purchases a da Vinci system and surgeons go through a certain number of cases, they can basically post on our public web site. So you can go in and select by zip code, and you can get a listing of where hospitals are.

So, again, this is for the patients and patient family members to be able to search out hospitals with da Vinci or search out a surgeon who can perform da Vinci surgery.

Q. Do you know where some of the da Vinci systems that are located in Florida are specifically located?

A. Yes. There's a number in Orlando. There are some in Tampa. There are some in Miami. There are

some in Palm Beach County.

Q. Do you know where those in Palm Beach County are located?

A. Yes. There's two I'm aware of: One at West Boca Medical Center and another one at JFK Medical Center.

MS. HIRTH: I'm sorry, Counsel. We think you may have objected there, but we couldn't hear you.

MR. VANDEN BOSCH: It was an objection on hearsay.

MS. HIRTH: Q. Let me ask you how you're aware of where the systems are located in Palm Beach County are located. How did you become aware of them?

A. I basically found them on our public web site, Intuitive Surgical web site.

Q. Did you yourself go and look that up?

A. Yes.

Q. I think we're almost there. Are there areas of the United States in which Intuitive invests in marketing of these systems more than in other areas?

MR. VANDEN BOSCH: Objection, leading.

MS. HIRTH: Q. Let me back up. I'll start the question a little bit differently.

A. Okay.

Q. Are you familiar with Intuitive's marketing

of da Vinci surgical systems?

A. Yes.

Q. And are you aware of the amount of marketing that Intuitive -- or promotion -- that Intuitive does with regard to these surgical systems in the United States?

A. Yes.

Q. Are you -- do you have an understanding of whether there any differences in the amount of marketing done in different areas of the United States?

MR. VANDEN BOSCH: Objection. Leading, no foundation.

MS. HIRTH: Q. You can answer.

A. This is my understanding. So Intuitive Surgical --

Q. Just to back up, so you do have an understanding?

A. I do have an understanding.

Q. Feel free to continue.

A. Intuitive Surgical markets the da Vinci system to surgeons and hospital administrators through surgical conferences. We rely on hospitals to market da Vinci surgery to patients locally, and we support them in those marketing efforts. We have a web site -- daVincisurgery.com -- which markets to patients, but we

then, basically, direct patients to local hospitals.

And so the -- again, back to the hospitals, we are really the main marketers of da Vinci locally. And Florida Hospital in Orlando is a worldwide, well-known da Vinci hospital, and they do a lot of marketing; as an example of one hospital in Florida that does a lot of marketing inside of Florida.

MR. VANDEN BOSCH: Objection to the characterization as "world renowned" or "worldwide." There's no foundation.

MS. HIRTH: Q. Let me ask you this: How is it that you're aware of Florida Hospital and its marketing?

A. The surgeon who -- one of our highest volume urology surgeons, Dr. Vip Patel, has moved from Ohio State to Florida Hospital -- Celebration Health Hospital to be exact -- and he is well-known in the urology -- in the da Vinci surgery community as a -- basically, a top surgeon, and he conducts a conference once a year, WRUS, which brings in surgeons from all over the world.

Q. How is it --

MR. VANDEN BOSCH: Objection to the characterization of the doctor as a "top" -- no foundation for that. No foundation laid for an opinion like that.

MS. HIRTH: Q. How is it that you're aware of Dr. Patel?

A. We track the number of surgeries performed by all of our surgeons, and Dr. Patel is in the top five of all da Vinci surgeons.

MR. VANDEN BOSCH: Objection, no personal knowledge.

MS. HIRTH: Q. When you say that Dr. Patel is "top five," what do you mean by "top five"?

A. Top five in procedure volume. It's something we track here inside of Intuitive Surgical.

Q. How do you do that tracking, if it's not confidential?

A. It's not. Basically, we track all of the surgeries performed by all da Vinci surgeons -- and for obvious reasons, we track how many surgeries all of our da Vinci surgeons do -- and he is in the top five of da Vinci surgeries performed year after year.

Q. How is it that you personally are aware of this tracking of him?

A. There is a weekly report that comes out that I monitor every week.

Q. Is that part of your job duty?

A. It's part of my job duty, yes.

Q. You mentioned that Dr. Patel is world

renowned, I think you said; what do you mean by that?

A. I just mean that he's well-known throughout the urology surgery community as a leading da Vinci surgeon.

Q. And how is it that you -- that you know that?

A. Because of the number of people that visit his hospital to learn da Vinci surgery and the attendance of the conference that he holds once a year.

MR. VANDEN BOSCH: No personal knowledge.

MS. HIRTH: Q. And how are you aware of the attendance, I think you said, and the number of people that visit his hospital?

A. From the reports that we have from when the conferences are, the registration of the people that have signed up for the conferences, and the reports after the conferences are held, and my attendance at different conferences.

Q. Do you receive those reports?

MR. VANDEN BOSCH: Hearsay.

THE WITNESS: Yes.

MS. HIRTH: Q. You mentioned "WRUS," I think.

A. Yes, that's correct.

Q. What is the WRUS?

A. It's the World Robotic Urology Symposium, which will be held in the beginning of March 2009.

Q. Where is it located?

A. Orlando, Florida; Celebration Hospital.

Q. Is that the same hospital you mentioned Dr. Patel is?

A. Yes.

Q. And are you aware of who the attendees are at that WRUS conference in general?

A. In general.

Q. I don't want names.

A. In general, they will be urology surgeons --

MR. VANDEN BOSCH: Objection, no foundation.

MS. HIRTH: Q. You can answer.

A. My understanding is that, based on my knowledge of conferences and previous conferences, they will be urology surgeons, hospital administrators and other OR staff people that are associated with da Vinci surgery.

Q. Do you have an understanding of how attendees become aware of this WRUS conference?

MR. VANDEN BOSCH: No foundation, no personal knowledge.

MS. HIRTH: I'm actually asking if he has personal knowledge.

Q. So you can answer that question.

A. I have seen -- yes, I have an understanding.

Q. How do you have that understanding?

A. I have seen Dr. Patel's video advertisements for the conference.

Q. How did you come to see that video advertisement?

A. It was shown at our worldwide sales meeting in January.

Q. And through seeing that video advertisement, what is your understanding of how attendees come to learn of the WRUS?

A. Is that they can visit the web site and find out themselves. Our salespeople -- our clinical salespeople and our capital salespeople, who are working on accounts that may be interested in purchasing a da Vinci system, our salespeople will encourage them to attend this conference --

MR. VANDEN BOSCH: Objection, hearsay.

THE WITNESS: -- to meet with peers to discuss the use of da Vinci.

MS. HIRTH: Q. How is it that you know your salespeople encourage this attendance?

A. It is a directive from the sales management which was communicated at the worldwide sales meeting.

MR. VANDEN BOSCH: Objection, hearsay.

MS. HIRTH: Q. Did you attend the worldwide sales meeting?

A. Yes, every day.

MS. HIRTH: I believe those are the only questions I have for you -- you'll be happy to know -- so we can go off the record for a minute.

(Discussion held off the record.)

EXAMINATION BY MR. VANDEN BOSCH

MR. VANDEN BOSCH: Q. Mr. Annen, do you report to Mr. Christopher Simmonds?

A. No, I do not.

Q. Do you guys -- do the two of you work together?

A. Very closely, yes.

Q. Does Intuitive Surgical still manufacture the da Vinci standard?

A. We -- we -- we manufacture it, and we also repair it and refurbish it.

Q. So the answer to my question is: You still manufacture the da Vinci standard?

A. In my -- the answer is yes. I guess we are still building the da Vinci standard system, yes.

Q. Okay. And that's the same thing as the da Vinci classic; is that right?

A. Some people refer to it as the da Vinci classic; da Vinci classic or da Vinci standard.

MR. VANDEN BOSCH: Can we go off the record for one second?

MS. HIRTH: Sure.

(Discussion held off the record.)

MR. VANDEN BOSCH: Q. Is the da Vinci logo on -- let me back up.

What does the SonicPro look like again? If you testified, I don't remember what it looked like.

A. The SonicPro -- da Vinci SonicPro instrument-cleaning system is a stainless steel box about the size of a large washing machine with a top cover.

Q. So it resembles almost like what you would see in a restaurant washing machine?

A. Yeah, that's -- that's fair.

Q. And does -- is the da Vinci logo appear on the SonicPro?

A. Yes.

Q. What is the cost of a da Vinci standard system? I mean, there's probably a range because you might be purchasing the EndoWrist -- different EndoWrist attachments, but what's the general range of the cost of a da Vinci classic?

MS. HIRTH: Objection, outside the scope of the direct.

But you can answer.

THE WITNESS: You know, I can only refer you to the numbers on our frequently asked questions on the public web site. I'm not at liberty to give you the pricing of our da Vinci systems.

MR. VANDEN BOSCH: Q. Is that your answer, also, for the cost of the da Vinci S?

MS. HIRTH: Objection, outside the scope of the direct.

THE WITNESS: Yes, that's the same answer. I refer you to the frequently asked questions on our web site.

MR. VANDEN BOSCH: Q. Will there appear on your frequently asked questions a money amount for the systems?

MS. HIRTH: Same objection.

THE WITNESS: To my understanding, there's a rough -- rough number for the price to the customer of the da Vinci system.

MS. HIRTH: I'm also going to belatedly object to lack of foundation.

MR. VANDEN BOSCH: Q. Do you know what the costs of the three da Vinci surgical systems is?

MS. HIRTH: Objection, outside the scope of the direct.

You can answer.

THE WITNESS: So let me -- can I ask you a question? Do you mean the price to the customer?

MR. VANDEN BOSCH: Q. That's right.

A. Okay. We use the term "cost" differently in the company.

MS. HIRTH: I guess I'll belatedly object to vague and ambiguous as well.

MR. VANDEN BOSCH: Q. What does it cost a customer to purchase a da Vinci classic?

MS. HIRTH: Same objections, except for the vague and ambiguous.

THE WITNESS: Again, I have to refer you to numbers that I believe -- rough numbers, estimates -- that are either in our public web site or that are mentioned in papers that other people have written about da Vinci.

MR. VANDEN BOSCH: Q. Do you have personal knowledge of those prices, however?

MS. HIRTH: Objection, outside the scope of the direct.

You can answer.

THE WITNESS: Yes, I have personal knowledge

of a range of price.

MR. VANDEN BOSCH: Q. And you have personal knowledge of the range of price for the da Vinci S?

MS. HIRTH: Same objection.

THE WITNESS: Yes, I have personal knowledge.

MR. VANDEN BOSCH: Q. And do you have personal knowledge of the range of prices for the da Vinci S HD?

MS. HIRTH: Same objection.

THE WITNESS: Yes, I have personal knowledge.

MR. VANDEN BOSCH: Q. What's the cost of a da Vinci S HD system?

MS. HIRTH: I'm going to object as to outside the scope of direct, and I also believe that Mr. Annen has made it somewhat clear that this is information that he's unable to give, as it's confidential business information at this point. So I'm going to instruct him not to answer that.

MR. VANDEN BOSCH: I would point out that if it's public information -- it's on the web site -- it's not confidential information.

MS. HIRTH: That's fine. Then I will let him answer as he has previously because, clearly,

there's a range, as he's mentioned; to give you the precise cost probably is somewhat confidential.

So you can answer the question as you see fit.

MR. VANDEN BOSCH: Q. Can you give me a range of cost for these systems that, as you've testified, is public information?

MS. HIRTH: Same objections.

THE WITNESS: So the -- again, I can't give you a range. I refer you to information that's in the public domain on our -- I believe on our web site and in papers. Just to be clear, we're talking about the price to the customer.

MR. VANDEN BOSCH: Q. And the customers are hospitals; is that right?

A. That is correct.

Q. Have you sold any of the da Vinci surgery systems to surgeons?

A. Not to my knowledge.

Q. Have you sold the da Vinci surgical system to any -- the only customers of the da Vinci surgical systems are hospitals; is that right?

MS. HIRTH: I would just ask you -- object that it's vague and ambiguous. Can you define what you mean by "customer"?

MR. VANDEN BOSCH: Q. Could you tell me what your understanding of what "customer" is, Mr. Annen?

A. My understanding of customer of the da Vinci system -- the purchaser of the da Vinci system is a hospital.

Q. Okay. And it's your testimony that only hospitals purchase -- have purchased so far the da Vinci surgical systems; is that right?

A. That is correct, to my knowledge.

Q. Now, on these -- do you remember you testified about marketing kits that are provided to your purchasers?

A. Yes.

Q. Again, those purchasers are hospitals; is that correct?

A. Yes.

MS. HIRTH: Asked and answered.

MR. VANDEN BOSCH: Q. And the hospital -- with respect to the billboards, would the hospital's name appear in the billboard?

A. The sample billboard advertisements that I have seen have included the hospital name.

Q. Do -- and you're familiar with some radio samples, also, that are part of the marketing kit; is

that right?

MS. HIRTH: Vague and ambiguous as to "radio samples."

MR. VANDEN BOSCH: Q. You said that in your marketing kit there are templates or models for radio marketing for the purchaser; is that right?

A. That's my understanding.

Q. And are you familiar with those radio templates?

A. I have not heard one myself.

Q. Do you know whether or not the name "da Vinci" appears on those radio -- if it's encouraged to use the name "da Vinci"?

A. I do not know that.

Q. Are you familiar with the content of the TV -- the TV templates for the marketing kits that are given to purchasers?

A. No, I'm not familiar with the content.

Q. So you don't know whether those TV templates encourage the purchaser to include the name "da Vinci"?

MS. HIRTH: Lack of foundation, asked and answered.

You can answer.

THE WITNESS: I am not familiar with the content.

MR. VANDEN BOSCH: Q. But you are familiar with the content of the billboard?

A. I have seen samples.

Q. What percentage of the universe of samples have you seen?

MS. HIRTH: I'm going to object that that's vague and ambiguous. Can you explain what you mean by "universe of samples"?

MR. VANDEN BOSCH: Q. Of all the sample billboards that -- do you know how many billboard samples there are available to your purchasers in the marketing kit?

MS. HIRTH: I'm just going to object, again, vague and ambiguous as to "samples." What do you mean by "samples"?

MR. VANDEN BOSCH: I'm referring --

Q. You used the term "sample," did you not, Mr. Annen; that you'd seen samples of billboards?

A. Examples. I'm not sure if I used the word "sample" or "example."

Q. I must have heard -- I didn't hear you right.

How many -- do you know how many billboard examples there are in the marketing kit?

A. No, I do not.

Q. How many -- do you remember how many you've seen?

A. Less than five.

Q. Do you remember if -- I believe you may have answered this -- do you remember how many have accorded space within the billboard to put the name of the hospital; the purchaser of the da Vinci surgery system?

A. No, I do not.

Q. Is it fair to say that at least one of them provides space for the hospital to put its name on the billboard?

A. I recall one sample having the name of the hospital.

Q. The other four you don't remember?

A. No, I don't know.

Q. And do you remember whether these examples have the name "da Vinci" on them?

A. I do not know.

MR. VANDEN BOSCH: I have no further questions right now.

MS. HIRTH: Thank you. I have no further questions, either, so I think we're done and can go off the record.

--o0o--

(Whereupon, the deposition was adjourned at 11:20 a.m.)

--o0o--

I declare under penalty of perjury that the foregoing is true and correct. Subscribed at _____, California, this ____ day of _____, 2009.

_____

Signature of Witness

CERTIFICATE OF REPORTER

I, DEBRA ALLUSTIARTI, a Certified Shorthand Reporter, hereby certify that the witness in the foregoing deposition was by me duly sworn to tell the truth, the whole truth, and nothing but the truth in the within-entitled cause;

That said deposition was taken down in shorthand by me, a disinterested person, at the time and place therein stated, and that the testimony of the said witness was thereafter reduced to typewriting, by computer, under my direction and supervision;

That before completion of the deposition, review of the transcript [ ] was [X] was not requested. If requested, any changes made by the deponent (and provided to the reporter) during the period allowed are appended hereto.

I further certify that I am not of counsel or attorney for either or any of the parties to the said deposition, nor in any way interested in the event of this cause, and that I am not related to any of the parties thereto.

DATED: February 9, 2009.

Debra Allustiarti

DEBRA ALLUSTIARTI, CSR No. 10929

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INSTRUCTIONS FOR READING/CORRECTING YOUR DEPOSITION

To assist you in making corrections to your deposition testimony, please follow the directions below. If additional pages are necessary, please furnish them and attach the pages to the back of the errata sheet.

This is the final version of your deposition transcript.

Please read it carefully. If you find any errors or changes you wish to make, insert the corrections on the errata sheet beside the page and line numbers.

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Do NOT change any of the questions.

After completing your review, please sign the last page of the errata sheet, above the designated "Signature" line and return the transcript to your attorney.

ERRATA SHEET

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_____ Subject to the above changes, I certify that the transcript is true and correct.

_____ No changes have been made. I certify that the transcript is true and correct.

_____ _____

(signature) (date)

--o0o--

(Whereupon, the deposition was adjourned at 11:20 a.m.)

--o0o--

I declare under penalty of perjury that the foregoing is true and correct. Subscribed at Sunnyvale, California, this 9th day of March, 2009.

Signature of Witness

State of California
County of Santa Clara

Subscribed and sworn to (or affirmed) before me, Angela M. Wilcock, on this 9th day of March 2009 by Steven Annen who proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

(seal)

ANGELA M. WILCOCK
Commission # 1559682
Notary Public - California
Santa Clara County
My Comm. Expires Mar 15, 2009

Signature