

ESTTA Tracking number: **ESTTA670884**

Filing date: **05/06/2015**

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

Proceeding	91215699
Party	Plaintiff Boston Scientific Corporation, on behalf of itself and its subsidiaries, Asthmatx, Inc.
Correspondence Address	BRADLEY J WALZ WINTHROP & WEINSTINE PA CAPELLA TOWER SUITE 3500, 225 SOUTH SIXTH STREET MINNEAPOLIS, MN 55402 UNITED STATES trademark@winthrop.com, sbaird@winthrop.com, tsitzmann@winthrop.com, jbriley@winthrop.com
Submission	Plaintiff's Notice of Reliance
Filer's Name	Timothy D. Sitzmann
Filer's e-mail	trademark@winthrop.com, sbaird@winthrop.com, bwalz@winthrop.com, tsitzmann@winthrop.com, jbriley@winthrop.com
Signature	/Timothy D. Sitzmann/
Date	05/06/2015
Attachments	Notice of Reliance with Cert of Service.pdf(268173 bytes ) Notice of Reliance - Exhibits 1-17.pdf(3123230 bytes ) Notice of Reliance - Exhibits 18-25.pdf(2481344 bytes )

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

In the matter of Application Serial No.: 85/806,379  
Filed: December 19, 2012  
For the mark: HOLAIRA  
Published in the Trademark Official Gazette on December 3, 2013

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Boston Scientific Corp. and  
Asthmatx, Inc.

Opposers,

v.

Opposition No. 91215699

Holaira, Inc.

Applicant.

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**OPPOSER'S NOTICE OF RELIANCE**

Boston Scientific Corp. and Asthmatx, Inc. ("Opposers") hereby make the following documents of record and notify Applicant of their reliance on the following:

1. Pursuant to 37 C.F.R. § 2.122(d)(1); TBMP § 704.03(b)(1)(A), Opposers submit copies of the following Trademark Registrations prepared and issued by the U.S. Patent and Trademark Office showing both the current status of and current title to the registrations.

<b><u>Mark</u></b>	<b><u>Registration No.</u></b>	<b><u>Exhibit</u></b>
ALAIR	2,856,168	1
ALAIR	3,380,080	2

2. Pursuant to 37 C.F.R. § 2.122(e); TBMP § 704.07, Opposers submit the following Notices of Acknowledgement under Section 15 for Opposers' ALAIR registrations that were obtained from the United States Trademark Status & Document Retrieval online database. These Notices are relevant as conclusive evidence of the validity of the

registrations for the ALAIR® mark, of Opposers’ ownership of the registrations, and of Opposers’ exclusive right to use the registered marks in commerce.

<b>Mark</b>	<b>Registration No.</b>	<b>Notice of Acknowledgement Under Section 15</b>	<b>Exhibit</b>
ALAIR	2,856,168	Aug. 24, 2014	3
ALAIR	3,380,080	Sept. 12, 2013	4

3. Pursuant to 37 C.F.R. § 2.120(j)(3)(i); TBMP § 704.10, Opposers submit the following definitions for Opposers’ discovery requests and Applicant’s Supplemental Answers to Opposers’ First Set of Interrogatories attached as Exhibit 5.
4. Pursuant to 37 C.F.R. § 2.120(j)(3)(i); TBMP § 704.10, Opposers submit the following Objections and Responses to Opposers’ First Set of Requests for Admission attached as Exhibit 6.
5. Pursuant to 37 C.F.R. § 2.120(j)(3)(i); TBMP § 704.10, Opposers submit the following Supplemental Responses to Opposers’ First Set of Requests for Admission attached as Exhibit 7.
6. Pursuant to 37 C.F.R. § 2.122(e) and TBMP 704.08, Opposers submit the following excerpts from printed publications and dictionary definitions from internet sources. The documents are relevant to the similarity of the marks and the relatedness of the goods.

<b>Document</b>	<b>Exhibit</b>
American Heritage Dictionary of the English Language, Third Edition 1996, definition of “all,” Page 47	8
American Heritage Dictionary of the English Language, Third Edition 1996, definition of “whole,” Page 2038	9
West’s Legal Thesaurus / Dictionary, Special Deluxe Edition 1993, entry for “apparatus,” Page 54	10
West’s Legal Thesaurus / Dictionary, Special Deluxe Edition, entry for “device,” Page 232	11
Printout from Merriam-Webster.com, dictionary entry for “all”	12
Printout from Merriam-Webster.com, dictionary entry for “whole”	13
Printout from Merriam-Webster.com, thesaurus entry for “whole”	14
Printout from Merriam-Webster.com, dictionary entry for “hola”	15

7. Pursuant to 37 C.F.R. § 2.122(e); TBMP 704.08(a), Opposers submit as Exhibit 16 a true and correct copy of Page 100 of the printed periodical Popular Science, Vol. 269, No. 6, Dec. 2006 Issue. The evidence is relevant to the channels of trade, the classes of consumers, and the strength of Opposers' ALAIR® mark.
8. Pursuant to 37 C.F.R. § 2.122(e); TBMP § 704.07, Opposers submit as an official record the Stipulated Withdrawal of Application with Prejudice for the mark ALLAIRE as Exhibit 17. The evidence is relevant to the strength of Opposers' ALAIR® mark and Opposers' exclusive ownership of the ALAIR® mark.
9. Pursuant to 37 C.F.R § 2.122(e); TBMP § 704.08(b), Opposers submit the following printouts from third-party websites. The relevance of these third-party website printouts is set forth below.

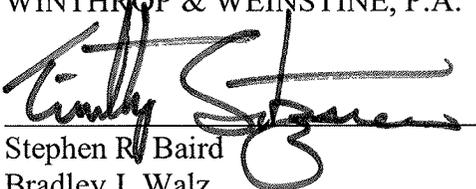
<u>Title</u>	<u>Relevance</u>	<u>Website</u>	<u>Date Printed</u>	<u>Ex.</u>
Pulmonology – Overlake Medical Clinics: Introducing: Bronchial Thermoplasty	Relatedness of the goods, channels of trade, classes of consumers	<a href="http://www.overlakehospital.org/services/medical-clinics/specialty/pulmonology/">www.overlakehospital.org/services/medical-clinics/specialty/pulmonology/</a>	Sept. 10, 2014	18
Obstructive and Restrictive Lung Diseases	Relatedness of goods, channels of trade, classes of consumers	<a href="http://www.webmd.com/lung/obstructive-and-restrictive-lung-disease">www.webmd.com/lung/obstructive-and-restrictive-lung-disease</a>	Dec. 8, 2014	19
Obstructive lung disease – Wikipedia	Relatedness of goods, channels of trade, classes of consumers	<a href="http://en.wikipedia.org/w/index.php?title=Obstructive_lung_disease&amp;printable=yes">http://en.wikipedia.org/w/index.php?title=Obstructive_lung_disease&amp;printable=yes</a>	May 28, 2014	20
Johns Hopkins Obstructive Lung Disease Clinic – Asthma	Relatedness of goods, channels of trade, classes of consumers	<a href="http://www.hopkinsmedicine.org/pulmonary/clinics/obstructive_lung_disease.html">http://www.hopkinsmedicine.org/pulmonary/clinics/obstructive_lung_disease.html</a>	Dec. 8, 2014	21
Health After 50: Lung Disorders including COPD, asthma...	Relatedness of goods, channels of trade, classes of consumers	<a href="http://www.johnshopkinshealthalerts.com/alerts_index/lung_disorders/22-1.html?zkPrintable=true">http://www.johnshopkinshealthalerts.com/alerts_index/lung_disorders/22-1.html?zkPrintable=true</a>	Dec. 8, 2014	22

Asthma & COPD Center: Refractory Obstructive Lung Disorders Clinic	Relatedness of goods, channels of trade, classes of consumers	<a href="http://www.uchospitals.edu/specialties/pulmonary/asthma-copd/rold.html">http://www.uchospitals.edu/specialties/pulmonary/asthma-copd/rold.html</a>	Dec. 8, 2014	23
The Link between Asthma & COPD	Relatedness of goods, channels of trade, classes of consumers	<a href="http://www.lung.org/associations/sates/illinois/news/the-link-between-asthma.html?print=t">http://www.lung.org/associations/sates/illinois/news/the-link-between-asthma.html?print=t</a>	Dec. 5, 2014	24

10. Pursuant to 37 C.F.R. § 2.122(e); TBMP §§ 704.07 and 704.08(b), Opposers submit as an official record and as a publication publically available on the internet a website printout from the National Institute of Health 2015 Medical Subject Heading database entitled “MeSH Browser Record – Lung Diseases, Obstructive,” printed on May 5, 2015, available at [http://www.nlm.nih.gov/cgi/mesh/2015/MB\\_cgi?field=uid&term=D008173](http://www.nlm.nih.gov/cgi/mesh/2015/MB_cgi?field=uid&term=D008173). The evidence is relevant to the relatedness of the goods.

Respectfully submitted,

WINTHROP & WEINSTINE, P.A.



Stephen R. Baird  
Bradley J. Walz  
Timothy D. Sitzmann

Date: May 6, 2015

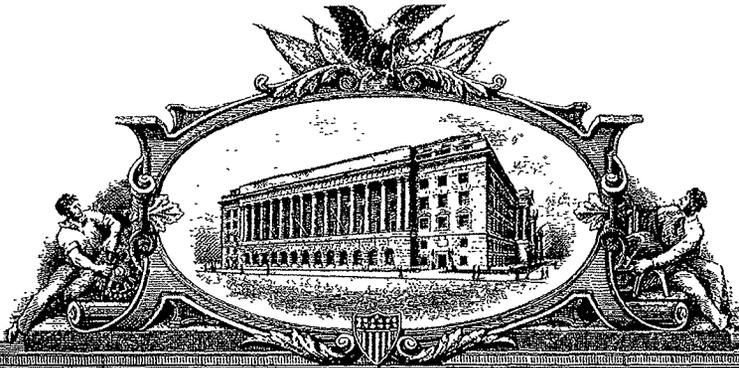
3500 Capella Tower  
225 South Sixth Street  
Minneapolis, MN 55402  
Telephone: (612) 604-6725  
Facsimile: (612) 604-6825

*Attorneys for Boston Scientific Corp. and  
Asthmatx, Inc.*



Exhibit 1

7502455



# THE UNITED STATES OF AMERICA

**TO ALL TO WHOM THESE PRESENTS SHALL COME:**

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

November 03, 2014

THE ATTACHED U.S. TRADEMARK REGISTRATION 2,856,168 IS CERTIFIED TO BE A TRUE COPY WHICH IS IN FULL FORCE AND EFFECT WITH NOTATIONS OF ALL STATUTORY ACTIONS TAKEN THEREON AS DISCLOSED BY THE RECORDS OF THE UNITED STATES PATENT AND TRADEMARK OFFICE.

REGISTERED FOR A TERM OF 10 YEARS FROM *June 22, 2004*

*1st* RENEWAL FOR A TERM OF 10 YEARS FROM *June 22, 2014*

SECTION 8 & 15

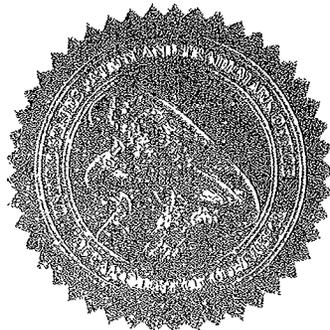
SAID RECORDS SHOW TITLE TO BE IN:

*ASTHMATX, INC.*

*A CALIFORNIA CORPORATION*

By Authority of the

Under Secretary of Commerce for Intellectual Property  
and Director of the United States Patent and Trademark Office



*W. Montgomery*  
W. MONTGOMERY  
Certifying Officer

BSC000867

Int. Cl.: 10

Prior U.S. Cls.: 26, 39, and 44

United States Patent and Trademark Office

Reg. No. 2,856,168

Registered June 22, 2004

TRADEMARK  
PRINCIPAL REGISTER

ALAIR

ASTHMATX, INC. (CALIFORNIA CORPORATION)  
1340 SPACE PARK WAY  
MOUNTAIN VIEW, CA 94043

ELECTRODES, IN CLASS 10 (U.S. CLS. 26, 39 AND 44).

FIRST USE 8-9-2001; IN COMMERCE 8-9-2001.

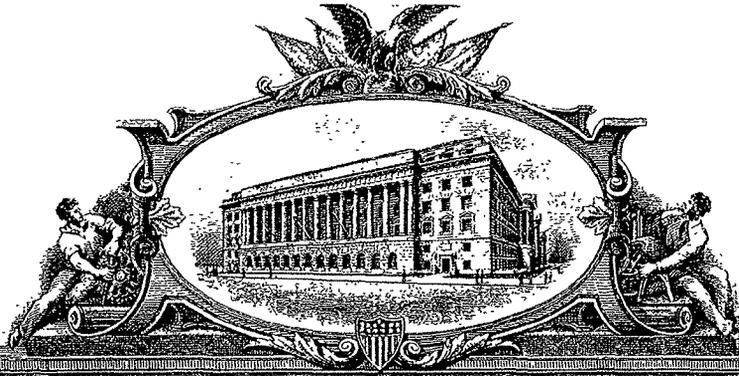
FOR: MEDICAL THERAPEUTIC DEVICES FOR USE IN THE TREATMENT OF PULMONARY DISEASES, NAMELY, CATHETERS, PROBES, GENERATORS, BRONCHOSCOPES, AND

SN 75-863,338, FILED 12-3-1999.

RONALD AIKENS, EXAMINING ATTORNEY

## Exhibit 2

7502455



**THE UNITED STATES OF AMERICA**

**TO ALL TO WHOM THESE PRESENTS SHALL COME:**

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

October 31, 2014

THE ATTACHED U.S. TRADEMARK REGISTRATION 3,380,080 IS CERTIFIED TO BE A TRUE COPY WHICH IS IN FULL FORCE AND EFFECT WITH NOTATIONS OF ALL STATUTORY ACTIONS TAKEN THEREON AS DISCLOSED BY THE RECORDS OF THE UNITED STATES PATENT AND TRADEMARK OFFICE.

REGISTERED FOR A TERM OF 10 YEARS FROM *February 12, 2008*  
SECTION 8 & 15

SAID RECORDS SHOW TITLE TO BE IN:

*REGISTRANT*

By Authority of the  
Under Secretary of Commerce for Intellectual Property  
and Director of the United States Patent and Trademark Office

T. LAWRENCE  
Certifying Officer



BSC000865

Int. Cl.: 41

Prior U.S. Cls.: 100, 101 and 107

United States Patent and Trademark Office

Reg. No. 3,380,080

Registered Feb. 12, 2008

SERVICE MARK  
PRINCIPAL REGISTER

ALAIR

ASTHMATX, INC. (CALIFORNIA CORPORATION)  
1340 SPACE PARK WAY  
MOUNTAIN VIEW, CA 94043

FIRST USE 10-6-2006; IN COMMERCE 10-6-2006.

FOR: TRAINING AND TEACHING IN THE FIELD OF SURGERY AND TREATMENT OF PULMONARY DISEASES, NAMELY TRAINING AND TEACHING IN THE USE AND OPERATION OF MEDICAL DEVICES FOR BRONCHIAL SURGERY OR TREATMENT, AND DISTRIBUTION OF COURSE MATERIALS, NAMELY PRINTED MATERIALS AND ELECTRONIC MEDIA, IN CONNECTION THEREWITH, IN CLASS 41 (U.S. CLS. 100, 101 AND 107).

THE MARK CONSISTS OF STANDARD CHARACTERS WITHOUT CLAIM TO ANY PARTICULAR FONT, STYLE, SIZE, OR COLOR.

OWNER OF U.S. REG. NO. 2,856,168.

SER. NO. 77-019,259, FILED 10-11-2006.

ROBIN MITTLER, EXAMINING ATTORNEY

Exhibit 3

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**From:** TMOOfficialNotices@USPTO.GOV  
**Sent:** Sunday, August 24, 2014 11:19 PM  
**To:** bssitmdocketing@stwiplaw.com  
**Cc:** michelle.anderson@stwiplaw.com  
**Subject:** Official USPTO Notice of Acknowledgement Section 15: U.S. Trademark RN 2856168: ALAIR:  
Docket/Reference No. 1001.4646101

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**U.S. Registration Number:** 2856168                      **U.S. Serial Number:** 75863338  
**U.S. Registration Date:** Jun 22, 2004  
**Mark:** ALAIR  
**Owner:** ASTHMATX, INC.

Aug 24, 2014

### NOTICE OF ACKNOWLEDGEMENT UNDER SECTION 15

The declaration of incontestability filed for the above-identified registration meets the requirements of Section 15 of the Trademark Act, 15 U.S.C. §1065. **The Section 15 declaration is acknowledged.**

TRADEMARK SPECIALIST  
POST-REGISTRATION DIVISION  
571-272-9500

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### REQUIREMENTS FOR MAINTAINING A FEDERAL TRADEMARK REGISTRATION

**WARNING: Your registration will be canceled if you do not file the documents below during the specified time periods.**

#### Requirements in the First Ten Years

##### What and When to File:

**First Filing Deadline:** You must file a declaration of use (or excusable nonuse) between the 5th and 6th years after the registration date. See 15 U.S.C. §§1058, 1141k. If the declaration is accepted, the registration will continue in force for the remainder of the ten-year period, calculated from the registration date, unless canceled by an order of the Commissioner for Trademarks or a Federal Court.

**Second Filing Deadline:** You must file a declaration of use (or excusable nonuse) and an application for renewal between the 9th and 10th years after the registration date.\* See 15 U.S.C. §§1058, 1059.

#### Requirements in Successive Ten-Year Periods

**What and When to File:** You must file a declaration of use (or excusable nonuse) and an application for renewal between every 9th and 10th-year period, calculated from the registration date.\* See 15 U.S.C. §§1058, 1059.

#### Grace Period Filings

The above documents will be considered as timely if filed within six months after the deadlines listed above with the payment of an additional fee.

BSC000720

**\*ATTENTION MADRID PROTOCOL REGISTRANTS:** The holder of an international registration with an extension of protection to the United States under the Madrid Protocol must timely file the declarations of use (or excusable nonuse) referenced above directly with the USPTO. The time periods for filing are based on the U.S. registration date (not the international registration date). The deadlines and grace periods for the declarations of use (or excusable nonuse) are identical to those for nationally issued registrations. See 15 U.S.C. §§1058, 1141k. However, owners of international registrations do not file renewal applications at the USPTO. Instead, the holder must file a renewal of the underlying international registration at the International Bureau of the World Intellectual Property Organization, under Article 7 of the Madrid Protocol, before the expiration of each ten-year term of protection, calculated from the date of the international registration. See 15 U.S.C. §1141j. For more information and renewal forms for the international registration, see <http://www.wipo.int/madrid/en/>.

**\*\*\*The USPTO WILL NOT SEND ANY FURTHER NOTICE OR REMINDER OF THESE REQUIREMENTS. THE REGISTRANT SHOULD CONTACT THE USPTO ONE YEAR BEFORE THE EXPIRATION OF THE TIME PERIODS SHOWN ABOVE TO DETERMINE APPROPRIATE REQUIREMENTS AND FEES.\*\*\***

To view this notice and other documents for this application on-line, go to <http://tdr.uspto.gov/search.action?sn=75863338>.  
NOTE: This notice will only be available on-line the next business day after receipt of this e-mail.

Exhibit 4

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**From:** TMOOfficialNotices@USPTO.GOV  
**Sent:** Thursday, September 12, 2013 11:00 PM  
**To:** BSSltdocketing@stwiplaw.com  
**Subject:** Trademark RN 3380080: Official Notice of Acceptance and Acknowledgement under Sections 8 and 15 of the Trademark Act

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**Serial Number:** 77019259  
**Registration Number:** 3380080  
**Registration Date:** Feb 12, 2008  
**Mark:** ALAIR(STANDARD CHARACTER MARK)  
**Owner:** Asthmatx, Inc.

Sep 12, 2013

### NOTICE OF ACCEPTANCE UNDER SECTION 8

The declaration of use or excusable nonuse filed for the above-identified registration meets the requirements of Section 8 of the Trademark Act, 15 U.S.C. §1058. **The Section 8 declaration is accepted.**

### NOTICE OF ACKNOWLEDGEMENT UNDER SECTION 15

The declaration of incontestability filed for the above-identified registration meets the requirements of Section 15 of the Trademark Act, 15 U.S.C. §1065. **The Section 15 declaration is acknowledged.**

**The registration will remain in force for the class(es) listed below for the remainder of the ten-year period, calculated from the registration date, unless canceled by an order of the Commissioner for Trademarks or a Federal Court.**

**Class(es):**  
041

TRADEMARK SPECIALIST  
POST-REGISTRATION DIVISION  
571-272-9500

### REQUIREMENTS FOR MAINTAINING REGISTRATION

**WARNING:** Your registration will be canceled if you do not file the documents below during the specified time periods.

#### Requirements in the First Ten Years

**What and When to File:** You must file a declaration of use (or excusable nonuse) and an application for renewal between the 9th and 10th years after the registration date. See 15 U.S.C. §§1058, 1059.

#### Requirements in Successive Ten-Year Periods

**What and When to File:** You must file a declaration of use (or excusable nonuse) and an application for renewal between every 9th and 10th-year period, calculated from the registration date. See 15 U.S.C. §§1058, 1059.

**BSC000717**

**Grace Period Filings**

The above documents will be considered as timely if filed within six months after the deadlines listed above with the payment of an additional fee.

**\*\*\*The USPTO WILL NOT SEND ANY FURTHER NOTICE OR REMINDER OF THESE REQUIREMENTS. THE REGISTRANT SHOULD CONTACT THE USPTO ONE YEAR BEFORE THE EXPIRATION OF THE TIME PERIODS SHOWN ABOVE TO DETERMINE APPROPRIATE REQUIREMENTS AND FEES.\*\*\***

To view this notice and other documents for this application on-line, go to <http://tdr.uspto.gov/search.action?sn=77019259>.

NOTE: This notice will only be available on-line the next business day after receipt of this e-mail.

## Exhibit 5

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

In the matter of Application Serial No.: 85/806,379  
Filed: December 19, 2012  
For the mark: HOLAIRA  
Published in the *Trademark Official Gazette* on December 3, 2013

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Boston Scientific Corporation and  
Asthmatx, Inc.

Opposers,

v.

Opposition No. 91215699

Holaira, Inc.

Applicant.

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**OPPOSERS' FIRST SET OF INTERROGATORIES**

TO: Holaira, Inc., through its attorney Barbara J. Grahn, 200 Campbell Mithun Tower, 222 South Ninth Street, Minneapolis, MN 55402-3338.

Boston Scientific Corporation and Asthmatx, Inc. (collectively "Opposers"), in accordance with Rule 33 and other applicable rules of the Federal Rules of Civil Procedure and Rule 2.120 of the Trademark Rules of Practice, submits the following written interrogatories to be answered by Holaira, Inc. ("Applicant") in writing, under oath within 30 days, with such answers being served upon Opposers at the law offices of Winthrop & Weinstine, P.A., 3500 Capella Tower, 225 South Sixth Street, Minneapolis, MN 55402.

**INTRODUCTION**

These interrogatories seek answers as of the date hereof and, as to any interrogatories addressed to matters falling within Rules 26(e)(1) and 26(e)(2) of the Federal Rules of Civil Procedure, shall be deemed to be continuing, requiring Applicant to serve on Opposers such

further supplemental or amended answers seasonably after Applicant has acquired additional knowledge or information relating in any way to interrogatories. For the convenience of the Board and the parties, Opposers' request that Applicant quote each Interrogatory immediately before Applicant's Answer to the Interrogatory.

### **DEFINITIONS**

A. As used in these interrogatories, the following definitions apply:

1. Applicant's Goods. The term "Applicant's Goods" means the goods identified in United States Application Serial No. 85/806,379; namely, "Medical devices for treating lung diseases; medical apparatus and instruments for treating obstructive lung diseases" in International Class 10.

2. Applicant's Application. The term "Applicant's Application" means United States Application Serial No. 85/806,379.

3. Applicant's Mark. The term "Applicant's Mark" means the mark displayed in Applicant's Application; namely, HOLAIRA.

4. Communication. The term "communication" means the transmittal of information (in the form of facts, ideas, inquiries, or otherwise).

5. Concerning. The term "concerning" means related to, referring to, describing, evidencing, or constituting.

6. Describe. The term "describe" means, in general, to give the fullest description known or ascertainable by Applicant, whether or not in the possession of Applicant and whether or not alleged to be privileged.

7. Document. The term "document" is defined to be synonymous in meaning and equal in scope to the usage of this term in Federal Rules of Civil Procedure 34(a). For example,

the term “document” means all writings of any kind, including the originals and all nonidentical copies, including without limitation, correspondence, memoranda, notes, diaries, statistics, data, letters, e-mails, attachments, telegrams, minutes, contracts, reports, studies, checks, statements, receipts, returns, summaries, pamphlets, books, interoffice and intra-office communications, notations of any sort of conversations, telephone calls, meetings or other communications, bulletins, printer matter, computer printouts, electronic data, teletypes, telefax, invoices, worksheets, all drafts, alterations, modifications, notations, changes and amendments of any of the foregoing, graphic or oral records or representations of any kind (including, without limitation, photographs, charts, graphs, microfiche, microfilm, disks, electronic storage, video tapes, recordings, motion pictures) and any electronic, mechanical, or electric records or representations of any kind (including, without limitation, tapes, cassettes, discs, recordings, and computer memories).

8. Identify (With Respect to Documents). When referring to documents, to “identify” means to give, to the extent known, the (A) type of document; (B) general subject matter; (C) date of the document; and (D) author(s), addressee(s), and recipient(s).

9. Identify (With Respect to Persons). When referring to a person, to “identify” means to give, to the extent known, the person’s full name, present or last known address, and when referring to a natural person, additionally, the present or last known place of employment and title. Once a person has been identified in accordance with this subparagraph, only the name of that person need be listed in response to subsequent discovery requesting the identification of that person.

10. Parties. The terms “Applicant” and “Opposer” as well as a party’s full or abbreviated name or a pronoun referring to a party mean the party and, where applicable, its

officers, directors, employees, partners, corporate parent, subsidiaries, or affiliates. This definition is not intended to impose a discovery obligation on any person who is not a party to the litigation.

11. Person. The term “person” is defined as any natural person or any business, legal, or governmental entity or association.

12. Opposers’ Mark. The term “Opposers’ Mark” means the mark identified by Opposer in paragraphs 8 and 9 on pages 2 and 3 of the Notice of Opposition.

13. Opposers’ Registrations. The term “Opposers’ Registrations” means Registration Nos. 2,856,168 and 3,380,080 for Opposers’ Mark in paragraphs 8 and 9 on pages 2 and 3 of the Notice of Opposition.

14. Opposers’ Goods. The term “Opposer’s Goods” means the goods identified in Opposers’ Registrations in paragraph 8 on page 2 of the Notice of Opposition.

15. Opposers’ Services. The term “Opposers’ Services” means the services identified in Opposers’ Registrations in paragraph 9 on page 2 of the Notice of Opposition.

16. Or. The term “or” is intended to be used in the clarifying sense and not in the inclusive sense.

17. Number. The use of the singular form of any word includes the plural and vice versa.

18. You and Your. The use of “You” and “your” means Applicant.

### **INTERROGATORIES**

**INTERROGATORY NO. 1 :** Identify all persons involved in the selection, clearance, or adoption of Applicant’s Mark.

**INTERROGATORY NO. 2 :** Describe the pronunciation of Applicant’s Mark.

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

In the matter of Application Serial No.: 85/806,379  
Filed: December 19, 2012  
For the mark: HOLAIRA  
Published in the *Trademark Official Gazette* on December 3, 2013

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Boston Scientific Corporation and  
Asthmatx, Inc.

Opposition No. 91215699

Opposers,

v.

Holaira, Inc.

Applicant.

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**HOLAIRA, INC.'S  
SUPPLEMENTAL ANSWERS TO  
OPPOSERS' FIRST  
SET OF INTERROGATORIES**

TO: Boston Scientific Corporation and Asthmatx, Inc., above named, and Stephen R. Baird, Bradley, J. Walz and Timothy D. Sitzmann of Winthrop & Weinstine, P.A., 3500 Capella Tower, 225 South Sixth Street, Minneapolis, Minnesota 55402, their attorneys.

Holaira, Inc., ("Holaira") for its supplemental responses to Opposers' First Set of Interrogatories, served June 10, 2014, states:

**GENERAL OBJECTIONS**

1. The following responses are made without in any way waiving or intending to waive:

- a. All questions as to competency, relevancy, materiality, privilege and admissibility as evidence for any purpose, of the responses or subject matter thereof, in any subsequent proceeding in, or the trial of, this or any other action.
- b. The right at any time to the use of any of said responses, or their subject matter, in any subsequent proceeding in this or in any other action;
- c. The right to object on any ground at any time to a demand for further response to this or any other request for production of documents and statements or other

discovery procedures involving or relating to the subject matter of this Request for Production of Documents; and,

- d. The right at any time to revise, correct, add to, or clarify any of the responses herein.
2. Holaira objects to each and every request to the extent it seeks to discover information protected by work product or privilege, as defined by statute, rule or common law.
3. Holaira objects to the extent any request seeks production of documents not in the custody, possession or control of Holaira.
4. Holaira objects to the extent any request seeks to impose an obligation to respond beyond that required by Federal Rules of Civil Procedure or applicable rules.
5. Holaira objects to the extent any request seeks to discover documents used in preparing these responses on the grounds that such request is overly broad, not reasonably calculated to lead to the discovery of admissible evidence, and seeks work product and privileged information or information prepared in anticipation of litigation.

Subject to and without waiver of the foregoing General Objections, Holaira responds and asserts specific objections in response to Opposers' Interrogatories, Set One:

### **ANSWERS TO INTERROGATORIES**

**INTERROGATORY NO. 6:** Were you aware of Opposers' use of Opposers' Marks prior to your adoption of Applicant's Mark? If your answer is yes, when and under what circumstances did you become aware of Opposers' use of Opposers' Marks.

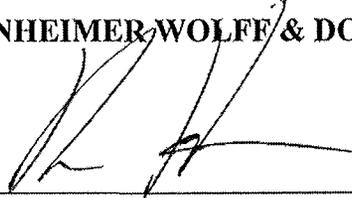
**ANSWER:** Holaira objects to this Interrogatory as vague and ambiguous with respect to the phrases "Opposers' use" and "Opposers' Marks." Subject to and without waiving the foregoing general and specific objections, Holaira was aware of that Opposers used the mark identified in paragraphs 8 and 9 of the Notice of Opposition. Holaira was aware of this through the knowledge of its employees.

**SUPPLEMENTAL ANSWER:** Subject to and without waiving the foregoing general and specific objections, Holaira was aware of Opposers' Mark at all times relevant, including when undergoing the process of selecting the Holaira name.

**AS TO OBJECTIONS:**

Dated: August 27, 2014

**OPPENHEIMER WOLFE & DONNELLY LLP**

By:   
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Dennis E. Hansen

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**ATTORNEYS FOR APPLICANT  
HOLAIRA, INC.**

Exhibit 6

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

In the matter of Application Serial No.: 85/806,379  
Filed: December 19, 2012  
For the mark: HOLAIRA  
Published in the *Trademark Official Gazette* on December 3, 2013

---

Boston Scientific Corporation and  
Asthmatx, Inc.

Opposition No. 91215699

Opposers,

v.

**HOLAIRA, INC.'S RESPONSES TO  
OPPOSERS' FIRST SET OF REQUESTS  
FOR ADMISSIONS**

Holaira, Inc.

Applicant.

---

TO: Boston Scientific Corporation and Asthmatx, Inc., above named, and Stephen R. Baird, Bradley, J. Walz and Timothy D. Sitzmann of Winthrop & Weinstine, P.A., 3500 Capella Tower, 225 South Sixth Street, Minneapolis, Minnesota 55402, their attorneys.

Holaira, Inc. ("Holaira") for its responses to Opposers' First Requests for Admissions, served June 10, 2014, states as follows:

**RESPONSE TO REQUEST FOR ADMISSIONS**

**REQUEST NO. 1:** Admit that Applicant's Mark was not used in commerce prior to December 19, 2012.

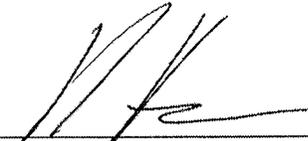
**RESPONSE: Admit.**

**REQUEST NO. 2:** Admit that the identification of goods description in Applicant's Application; namely, "[m]edical devices for treating obstructive lung diseases," does not identify a specific channel of trade.

**RESPONSE: Admit that the identification of "medical devices for treating obstructive lung diseases" in Applicant's Application does not identify a specific channel of trade except to the extent the goods, by their nature, are limited to specific trade channels.**

Dated: July 24, 2014

**OPPENHEIMER WOLFF & DONNELLY LLP**

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**ATTORNEYS FOR APPLICANT  
HOLAIRA, INC.**

Exhibit 7

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

In the matter of Application Serial No.: 85/806,379  
Filed: December 19, 2012  
For the mark: HOLAIRA  
Published in the *Trademark Official Gazette* on December 3, 2013

---

Boston Scientific Corporation and  
Asthmatx, Inc.

Opposition No. 91215699

Opposers,

v.

**HOLAIRA, INC.'S SUPPLEMENTAL  
RESPONSES TO OPPOSERS' FIRST SET  
OF REQUESTS FOR ADMISSIONS**

Holaira, Inc.

Applicant.

---

TO: Boston Scientific Corporation and Asthmatx, Inc., above named, and Stephen R. Baird, Bradley, J. Walz and Timothy D. Sitzmann of Winthrop & Weinstine, P.A., 3500 Capella Tower, 225 South Sixth Street, Minneapolis, Minnesota 55402, their attorneys.

Holaira, Inc. ("Holaira") for its supplemental responses to Opposers' First Requests for Admissions, served June 10, 2014, states as follows:

**RESPONSE TO REQUEST FOR ADMISSIONS**

**REQUEST NO. 2:** Admit that the identification of goods description in Applicant's Application; namely, "[m]edical devices for treating obstructive lung diseases," does not identify a specific channel of trade.

**RESPONSE:** Admit that the identification of "medical devices for treating obstructive lung diseases" in Applicant's Application does not identify a specific channel of trade except to the extent the goods, by their nature, are limited to specific trade channels.

**SUPPLEMENTAL RESPONSE:** Subject to all applicable presumptions, including, but not limited to, those identified or reflected in TEMP § 1207.01, admit.

**REQUEST NO. 3:** Admit that the identification of goods description in Applicant's Application; namely, "medical apparatus and instruments for treating obstructive lung diseases," does not identify a specific channel of trade.

**RESPONSE:** Admit that the identification of “medical apparatus and instruments for treating obstructive lung diseases” in Applicant’s Application does not identify a specific channel of trade except to the extent the goods, by their nature, are limited to specific trade channels.

**SUPPLEMENTAL RESPONSE:** Subject to all applicable presumptions, including, but not limited to, those identified or reflected in TEMP § 1207.01, admit.

**REQUEST NO. 4:** Admit that the identification of goods description in Registration No. 2,856,168 does not identify a specific channel of trade.

**RESPONSE:** Admit that the identification of “medical therapeutic devices for use in the treatment of pulmonary diseases” does not identify a specific channel of trade except to the extent the goods, by their nature, are limited to specific trade channels.

**SUPPLEMENTAL RESPONSE:** Subject to all applicable presumptions, including, but not limited to, those identified or reflected in TEMP § 1207.01, admit.

**REQUEST NO. 5:** Admit that the identification of services description in Registration No. 3,380,080 does not identify a specific channel of trade.

**RESPONSE:** Admit that the identification of “training and teaching in the use and operation of medical devices for bronchial surgery or treatment” does not identify a specific channel of trade except to the extent the services, by their nature, are limited to specific trade channels.

**SUPPLEMENTAL RESPONSE:** Subject to all applicable presumptions, including, but not limited to, those identified or reflected in TEMP § 1207.01, admit.

**REQUEST NO. 6:** Admit that the identification of goods description in Applicant’s Application; namely, “[m]edical devices for treating obstructive lung diseases,” does not identify a specific class of consumer.

**RESPONSE:** Admit that the identification of “medical devices for treating obstructive lung diseases” in Applicant’s Application does not identify a specific class of consumer except to the extent that the goods, by their nature, are limited to a specific class of consumer.

**SUPPLEMENTAL RESPONSE:** Subject to all applicable presumptions, including, but not limited to, those identified or reflected in TEMP § 1207.01, admit.

**REQUEST NO. 7:** Admit that the identification of goods description in Applicant’s Application; namely, “medical apparatus and instruments for treating obstructive lung diseases,” does not identify a specific class of consumer.

**RESPONSE:** Admit that the identification of “medical apparatus and instruments for treating obstructive lung diseases” in Applicant’s Application does not identify a specific class of consumer except to the extent that the goods, by their nature, are limited to a specific class of consumer.

**SUPPLEMENTAL RESPONSE:** Subject to all applicable presumptions, including, but not limited to, those identified or reflected in TEMP § 1207.01, admit.

**REQUEST NO. 8:** Admit that the identification of goods description in Registration No. 2,856,168 does not identify a specific class of consumer.

**RESPONSE:** Admit that the identification of “medical therapeutic devices for use in the treatment of pulmonary diseases” does not identify a specific class of consumer except to the extent that the goods, by their nature, are limited to a specific class of consumer.

**SUPPLEMENTAL RESPONSE:** Subject to all applicable presumptions, including, but not limited to, those identified or reflected in TEMP § 1207.01, admit.

**REQUEST NO. 9:** Admit that the identification of services description in Registration No. 3,380,080 does not identify a specific class of consumer.

**RESPONSE:** Admit that the identification of “training and teaching in the use and operation of medical devices for bronchial surgery or treatment” does not identify a specific class of consumer except to the extent that the services, by their nature, are limited to a specific class of consumer.

**SUPPLEMENTAL RESPONSE:** Subject to all applicable presumptions, including, but not limited to, those identified or reflected in TEMP § 1207.01, admit.

**REQUEST NO. 10:** Admit that Opposers’ right to use Opposers’ Mark in connection with Opposers’ Goods is incontestable.

**RESPONSE:** Holaira objects to this request as seeking a legal conclusion. Subject to and without waiving said objection, Holaira is without information sufficient to fully respond, and, accordingly, denies.

**SUPPLEMENTAL RESPONSE:** Subject to and without waiving the foregoing specific objection, Holaira is without information sufficient to fully respond and, accordingly, denies. However, based on information publically available, Holaira admits that Opposers’ Mark has been registered with the USPTO for longer than five years and Opposers filed an affidavit under 15 U.S.C. 1065.

**REQUEST NO. 11:** Admit that Opposers’ right to use Opposers’ Mark in connection with Opposers’ Services is incontestable.

**RESPONSE:** Holaira objects to this request as seeking a legal conclusion. Subject to and without waiving said objection, Holaira is without information sufficient to fully respond, and, accordingly, denies.

**SUPPLEMENTAL RESPONSE:** Subject to and without waiving the foregoing specific objection, Holaira is without information sufficient to fully respond and, accordingly, denies. However, based on information publically available, Holaira admits that Opposers' Mark has been registered with the USPTO for longer than five years and Opposers filed an affidavit under 15 U.S.C. 1065.

Dated: August 27, 2014

**OPPENHEIMER WOLFF & DONNELLY LLP**

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**ATTORNEYS FOR APPLICANT  
HOLAIRA, INC.**

Exhibit 8

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**al·kine** (äl'kīn') *n.* Variant of **alkyne**.  
**Alk·maar** (älk'mär') A town of northern Netherlands north-northwest of Amsterdam. Chartered in 1254, it has a famous cheese market. Population, 83,892.  
**alk·y** (äl'kē) *n., pl. -kies.* *Slang.* An alcoholic: "Nobody ever admitted we were alkies" (Dwight Espe). [Shortening and alteration of ALCOHOLIC + -Y.]  
**alky.** *abbr.* Alkalinity.  
**alk·kyd** (äl'kid) *n.* A widely used durable synthetic resin derived from glycerol and phthalic anhydride. Also called *alkyd resin*. [ALKY(L) + (AC)D.]  
**alk·kyl** (äl'käl) *n.* *Chemistry.* A monovalent radical, such as ethyl or propyl, having the general formula C<sub>n</sub>H<sub>2n+1</sub>. [German *Alkohol*, alcohol (from Medieval Latin *alcohol*, antimony; see ALCOHOL) + -YL.]  
**alk·kyl·ate** (äl'kä-lät') *tr.v. -at·ed, -at·ing, -ates.* *Chemistry.* To add one or more alkyl groups to (a compound).  
**alk·kyl·a·tion** (äl'kä-lä'shən) *n.* *Chemistry.* A process in which an alkyl group is added to or substituted in a compound, as in the reaction of alkenes with alkanes to make high-octane fuels.  
**alk·kyne** also **al·kine** (äl'kīn') *n.* Any of a series of open-chain hydrocarbons with a carbon-carbon triple bond and the general formula C<sub>n</sub>H<sub>2n-2</sub>. [ALKY(L) + -(I)NE<sup>2</sup>.]

**all** (äl) *adj.* 1. Being or representing the entire or total number, amount, or quantity: *All the windows are open. Deal all the cards.* See Synonyms at **whole**. 2. Constituting, being, or representing the total extent or the whole: *all Christendom*. 3. Being the utmost possible of: *argued the case in all seriousness*. 4. Every: *got into all manner of trouble*. 5. Any whatsoever: *beyond all doubt*. 6. *Pennsylvania.* Finished; used up: *The apples are all*. See Regional Note at **gum band**. 7. *Informal.* Being more than one: *Who all came to the party?* See Regional Note at **you-all**. — **all n.** The whole of one's fortune, resources, or energy; everything one has: *The brave defenders gave their all*. — **all pron.** 1. The entire or total number, amount, or quantity; totality: *All of us are sick. All that I have is yours*. 2. Everyone; everything: *justice for all*. — **all adv.** 1. Wholly; completely: *a room painted all white; directions that were all wrong*. 2. Each; apiece: *a score of five all*. 3. So much: *I am all the better for that experience*. — **Idioms.** **all along.** From the beginning; throughout: *saw through the disguise all along*. **all but.** Nearly; almost: *all but crying with relief*. **all in.** Tired; exhausted. **all in all.** Everything being taken into account: *All in all, the criticism seemed fair*. **all of.** *Informal.* Not more than: *a conversation that took all of five minutes*. **all that.** *Informal.* To the degree expected. **at all.** 1. In any way: *unable to walk at all*. 2. To any extent; whatever: *not at all sorry*. [Middle English *al*, from Old English *eall*. See **al**<sup>3</sup> in Appendix.]

**USAGE NOTE:** The construction *all that* is used informally in questions and negative sentences to mean "to the degree expected," as in *I know it won an Oscar, but the film is not all that exciting*. In an earlier survey, the Usage Panel rejected the use of this construction in formal writing. • Sentences of the form *All X's are not Y* may be ambiguous. *All of the departments did not file a report* may mean that some departments did not file, or that none did. If the first meaning is intended, it can be unambiguously expressed by the sentence *Not all of the departments filed a report*. If the second meaning is intended, a paraphrase such as *None of the departments filed a report* or *All of the departments failed to file a report* can be used. Note that the same problem can arise with other universal terms like *every* in negated sentences, as in the ambiguous *Every department did not file a report*. See Usage Note at **every**.

**all-** *pref.* Variant of **allo-**.  
**al·la breve** (äl'a brēv', ä'l'a brēv'ä) *adv. & adj.* *Music.* In triple or quadruple meter with the half note being the unit of time. [Italian: *alla*, according to the + *breve*, breve.]  
**Al·lah** (äl'a, a'la) *n.* God, especially in Islam. [Arabic *Allāh*.]  
**Al·la·ha·bad** (äl'a-hä-bäd', ä'l'a-hä-bäd') *n.* A city of north-central India at the junction of the Jumna and Ganges rivers east of Varanasi. It was built on the site of an ancient Indo-Aryan holy city and is still a pilgrimage site for Hindus. Population, 616,051.  
**Al·lais** (ä-lä'), **Maurice.** Born 1911. French economist. He won the 1988 Nobel Prize for his theories of market behavior and the efficient use of resources.  
**al·la·man·da** (äl'a-män'dä) *n.* Any of several tropical American evergreen shrubs of the genus *Allamanda*, widely cultivated in warm regions for their showy yellow or purple trumpet-shaped flowers. [New Latin *Allamanda*, genus name, after Jean-Nicholas Sébastien Allamand (1713-1787), Swiss scientist.]  
**all·A·mer·i·can** (äl'a-mēr'i-kən) *adj.* 1. Representative of the people of the United States or their ideals; typically American: *all-American family; their all-American generosity*. 2. *Sports.* As the best amateur in the United States at a particular sport or event: *an all-American fullback*. 3. Composed entirely of Americans or American materials: *an all-American negotiating team of all-American manufacture*. 4. Of all the American people: *an all-American conference*. — **all-American n.** Often

product, C<sub>5</sub>H<sub>4</sub>N<sub>4</sub>O<sub>3</sub>, of uric acid that is the metabolic end product of vertebrate purine oxidation and is used medicinally to promote tissue growth. [ALLANTO(S) + -IN.]  
**al·lan·to·is** (ä-län'tō-īs) *n., pl. al·lan·to·i·des (äl'en-tō'i-dēz'). A membranous sac that develops from the posterior part of the alimentary canal in the embryos of mammals, birds, and reptiles. It is important in the formation of the umbilical cord and placenta in mammals. Also called *allantoid*. [New Latin, from *allantoïdes*, from Greek *allantoïdēs*, sausage-shaped: *allas*, *allant-*, sausage + *-oidēs*, -oid.] — **al·lan·to·ic** (äl'en-tō'ik) *adj.**

**al·lar·gan·do** (ä'lär-gän'dō) *adv. & adj.* *Music.* In a gradually broadening style and slowing tempo. Used chiefly as a direction. [Italian, present participle of *allargare*, to broaden: *al-*, (from Latin *ad-*; see **AD-**) + *largare*, to broaden (from *largo*, broad, from Latin *largus*).]  
**all-a-round** (äl'a-round') also **all-round** (äl'round') *adj.* 1. Comprehensive in extent or depth: *a good all-around education*. 2. Able to do many things well; versatile: *an all-around athlete*. See Synonyms at **versatile**.

**al·lay** (ä-lä') *tr.v. -laid, -lay·ing, -lays.* 1. To reduce the intensity of; relieve. See Synonyms at **relieve**. 2. To calm or pacify; set to rest: *allayed the fears of the worried citizens*. [Middle English *aleien*, from Old English *aleccan*, to lay down: *ä-*, intensive pref. + *leccan*, to lay; see **LAY**<sup>1</sup>.] — **al·lay'er n.**

**all clear** *n.* A signal, usually by siren, that an air raid is over or a danger has passed.

**al·le·ga·tion** (äl'i-gä'shən) *n.* 1. Something alleged; an assertion: *allegations of disloyalty*. 2. The act of alleging. 3. A statement asserting something without proof: *The newspaper's charges of official wrongdoing were mere allegations*. 4. *Law.* An assertion made by a party that must be proved or supported with evidence. [French *allégation*, from Latin *allēgatiō*, *allēgatiōn-*, from *allēgatus*, past participle of *allēgare*, to dispatch, adduce: *ad-*, *ad-* + *lēgare*, to depute; see **LEGATE**.]

**al·lege** (ä-lēj') *tr.v. -leged, -leg·ing, -leg·es.* 1. To assert to be true; affirm: *alleging his innocence of the charge*. 2. To assert without or before proof: *The indictment alleges that the commissioner took bribes*. 3. To state (a plea or excuse, for example) in support or denial of a claim or accusation: *The defendant alleges temporary insanity*. 4. *Archaic.* To bring forward as an authority. [Middle English *alleggen*, from Old French *alegier*, to vindicate, justify (influenced by *aleguer*, to give a reason), from *esliger*, to pay a fine, justify oneself, from Late Latin \**exlitigare*, to clear at law: Latin *ex-*, out; see **EX-** + Latin *litigare*, to sue; see **LITIGATE**.] — **al·lege·a·ble adj.** — **al·leg'er n.**

**al·leged** (ä-lēj'əd, ä-lēj'id) *adj.* Represented as existing or as being as described but not so proved; supposed. — **al·leg'ed·ly** (ä-lēj'id-lē) *adv.*

**USAGE NOTE:** An *alleged* burglar is someone who has been accused of being a burglar but against whom no charges have been proved. An *alleged* incident is an event that is said to have taken place but has not yet been verified. In their zeal to protect the rights of the accused, newspapers and law enforcement officials sometimes misuse *alleged*. A man arrested for murder may be only an *alleged* murderer, for example, but he is a real, not an *alleged*, suspect in that his status as a suspect is not in doubt. Similarly, if the money from a safe is known to have been stolen and not merely mislaid, then we may safely speak of a theft without having to qualify our description with *alleged*.

**Al·le·ghe·ny Mountains** (äl'i-gä'nē) also **Al·le·ghe·nies** (-nēz). A mountain range forming the western part of the Appalachian Mountains. The range extends about 805 km (500 mi) from northern Pennsylvania to southwest Virginia and rises to approximately 1,483 m (4,862 ft) in northeast West Virginia.

**Allegheny River.** A river rising in north-central Pennsylvania and flowing about 523 km (325 mi) northwest into New York then southwest into Pennsylvania again, where it joins the Monongahela River at Pittsburgh to form the Ohio River.

**Allegheny spurge** *n.* A perennial herb (*Pachysandra procumbens*), native to the southeast United States and sometimes grown as an ornamental or ground cover for its usually mottled leaves. [After the ALLEGHENY (MOUNTAINS).]

**al·le·giance** (ä-lē'jāns) *n.* 1. Loyalty or the obligation of loyalty, as to a nation, sovereign, or cause. See Synonyms at **fidelity**. 2. The obligations of a vassal to a lord. [Middle English *allegiance*, alteration of *ligeance*, from Old French *ligeance*, from *lige*, *liege*. See **LEIGE**.] — **al·le'giant adj.**

**al·le·gor·i·cal** (äl'i-gör'ikäl, -gör'-) also **al·le·gor·ic** (-ik) *adj.* Of, characteristic of, or containing allegory: *an allegorical painting of Victory leading an army*. — **al'le·gor'i·cal·ly adv.**

**al·le·go·rize** (äl'i-gō-riz', -gō-, -gä-) *v. -rized, -riz·ing, -rizes.* — *tr.* 1. To express as or in the form of an allegory: *a story of barnyard animals that allegorizes the fate of Soviet socialism*. 2. To interpret allegorically: *allegorize the quest for the Holy Grail as an inner spiritual search*. — *intr.* To use or make allegory: *sculptors who rendered the moral world by alleorizing*.

ä pat	oi boy
ä pay	ou out
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ä father	öo boot
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ë be	ür urge
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ÿ pie	th this
ÿ pier	zh which
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Exhibit 9

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to the cod. **2.** Any of several marine food fishes of the genera *Menticirrhus* and *Merluccius*, including the corbina and the silver hake, of North American coastal waters. [Middle English *whitynge*, from Middle Dutch *wijting*. See *kwelt-* in Appendix.]

**whit-ish** (hwīt'fīsh, wīt'-) *adj.* Somewhat white.

**whit-leath-er** (hwīt'lēth'ər, wīt'-) *n.* Variant of **white leather**.

**whit-low** (hwīt'lō, wīt'-) *n.* See **felon**<sup>2</sup>. [Alteration of Middle English *whitflawe*: *white*, *white* (perhaps alteration of Middle Dutch *vijt*, abscess) + *flawe*, splinter, flaw; see **FLAW**<sup>1</sup>.]

**Whit-man** (hwīt'man, wīt'-), **Marcus**. 1802–1847. American frontier missionary who with his wife **Narcissa Prentiss** (1808–1847) established a missionary post in the Oregon region (1836), where they introduced Christianity, schooling, and medical advances to the Native Americans.

**Whitman, Walt**. 1819–1892. American poet whose great work *Leaves of Grass* (first published 1855), written in unconventional meter and rhyme, celebrates the self, universal brotherhood, and the greatness of democracy and the United States.

**Whit-mon-day** also **Whit-Mon-day** (hwīt'mūn'dē, -dā', wīt'-) *n.* The day after Whitsunday.

**Whit-ney** (hwīt'nē, wīt'-). **Eli**. 1765–1825. American inventor and manufacturer whose invention of the cotton gin (1793) revolutionized the cotton industry. He also established the first factory to assemble muskets with interchangeable parts, marking the advent of modern mass production.

**Whitney, Mount**. A peak, 4,420.7 m (14,494 ft) high, in the Sierra Nevada of east-central California. It is the highest elevation in the contiguous United States.

**Whit-sun** (hwīt'sən, wīt'-) *adj.* Of, relating to, or observed on Whitsunday or at Whitsuntide. [Middle English *whitsone*, back-formation from *whitsunday*, Whitsunday. See **WHITSUNDAY**.]

**Whit-sun-day** (hwīt'sən-dē, -dā', wīt'-) *n.* See **Pentecost** (sense 1). [Middle English *whitsunday*, from Old English *hwīta sunnandæg*, White Sunday (from the white ceremonial robes worn on this day): *hwīt*, white, see **WHITE**; *sunnandæg*, Sunday; see **SUNDAY**.]

**Whit-sun-tide** also **Whit-sun Tide** (hwīt'sən-tīd', wīt'-) *n.* The week beginning on Whitsunday, especially the first three days of this week.

**Whit-taker** (hwīt'a-kər, wīt'-), **Charles Evans**. 1901–1973. American jurist who served as an associate justice of the U.S. Supreme Court (1957–1962).

**Whit-ti-er** (hwīt'ē-ər, wīt'-). A city of southern California east-southeast of Los Angeles. Founded by Quakers in 1887, it is a residential community with varied industries. Population, 69,717.

**Whittier, John Greenleaf**. 1807–1892. American poet. His early works, such as *Voices of Freedom* (1846), reflect his opposition to slavery, but he is best known for his nostalgic poems about New England, including *Snow-Bound* (1866).

**Whit-ting-ton** (hwīt'ing-tən, wīt'-), **Richard**. 1358?–1423. English merchant and mayor of London (1397–1399, 1406–1407, and 1419–1420).

**whit-tle** (hwīt'l, wīt'l) *v.* -tled, -tling, -tles. —*tr.* **1.a.** To cut small bits or pare shavings from (a piece of wood). **b.** To fashion or shape in this way: *whittled a toy boat*. **2.** To reduce or eliminate gradually, as if by whittling with a knife: *whittled down the debt by making small payments*. —*intr.* To cut or shape wood with a knife. [From Middle English *whyttel*, knife, variant of *thwitel*, from *thwiten*, to whittle, from Old English *thwitan*, to strike, whittle down.] —**whittler** *n.*

**whiz** also **whizz** (hwīz, wīz) —*v.* **whizzed**, **whiz-zing**, **whiz-zes**. —*intr.* **1.** To make a whirring or hissing sound, as of an object speeding through air. **2.** To move swiftly with or as if with such a sound; rush: *whizzed past on a ten-speed bike; as the days whizzed by*. —*tr.* To throw or spin rapidly: *The pitcher whizzed the ball to first*. —*n.* **1.** A whirring or hissing sound, as of an object speeding through air. **2.** A rapid passage or journey. **3.** Informal. One who has remarkable skill: *a whiz at all sorts of games*. [Imitative.]

**whiz-bang** also **whizz-bang** (hwīz'bāng', wīz'-) Informal. —*n.* One that is conspicuously effective, successful, or skillful: *a whiz-bang of a speech*. —*adj.* **1.** Conspicuously effective, successful, or skillful: *a whiz-bang ad campaign*. **2.** Very rapid and eventful; rushed: *whiz-bang pacing; a whiz-bang schedule*. [From *whizzbang*, a shell used in World War I that was heard only an instant before landing and exploding: **WHIZ** + **BANG**<sup>1</sup>.]

**whiz kid** *n.* Informal. A young person who is exceptionally intelligent, innovatively clever, or precociously successful. [Alteration of *Quiz Kid*, a panelist on an early game show.]

**whizz-bang** (hwīz'bāng', wīz'-) *n.* & *adj.* Variant of **whiz-bang**.

**who** (hō) *pron.* **1.** What or which person or persons: *Who left?* **2.** Used as a relative pronoun to introduce a clause when the antecedent is a person or persons or one to whom personality is attributed: *the visitor who came yesterday; our child, who is gifted; informed sources who denied the story*. **3.** The person or persons that; whoever: *Who believes that will believe anything*. [Middle English, from Old English *hwā*. See **kwō-** in Appendix.]

**USAGE NOTE:** The traditional rules that determine the use of *who* and *whom* are relatively simple: *who* is used for a grammatical subject, where a nominative pronoun such as *I* or *he* would be

appropriate, and *whom* is used elsewhere. Thus, we write *The doctor who played Hamlet was there*, since *who* stands for the subject of *played Hamlet*; and *Who do you think is the best candidate?* where *who* stands for the subject of *is the best candidate*. But we write *To whom did you give the letter?* since *whom* is the object of the preposition *to*; and *The man whom the papers criticized did not show up*, since *whom* is the object of the verb *criticized*. Considerable effort and attention are required to apply the rules correctly in complicated sentences. To produce correctly a sentence such as *I met the man whom the government had tried to get France to extradite*, we must anticipate when we write *whom* that it will function as the object of the verb *extraditē*, several clauses distant from it. It is thus not surprising that writers from Shakespeare onward should often have interchanged *who* and *whom*. And though the distinction shows no signs of disappearing in formal style, strict adherence to the rules in informal discourse might be taken as evidence that the speaker or writer is paying undue attention to the form of what is said, possibly at the expense of its substance. In speech and informal writing *who* tends to predominate over *whom*; a sentence such as *Who did John say he was going to support?* will be regarded as quite natural, if strictly incorrect. By contrast, the use of *whom* where *who* would be required, as in *Whom shall I say is calling?* may be thought to betray a certain linguistic insecurity. When the relative pronoun stands for the object of a preposition that ends a sentence, *whom* is technically the correct form: the strict grammarians will insist on *Whom* (not *who*) *did you give it to?* But grammarians since Noah Webster have argued that the excessive formality of *whom* in these cases is at odds with the relative informality associated with the practice of placing the preposition in final position and that the use of *who* in these cases should be regarded as entirely acceptable. The relative pronoun *who* may be used in restrictive relative clauses, in which case it is not preceded by a comma, or in nonrestrictive clauses, in which case a comma is required. Thus, we may say either *The scientist who discovers a cure for cancer will be immortalized*, where the clause *who discovers a cure for cancer* indicates which scientist will be immortalized, or *The mathematician over there, who solved the four-color theorem, is widely known*, where the clause *who solved the four-color theorem* adds information about a person already identified by the phrase *the mathematician over there*. Some grammarians have argued that only *who* and not *that* should be used to introduce a restrictive relative clause that identifies a person. This restriction has no basis either in logic or in the usage of the best writers; it is entirely acceptable to write either *the man that wanted to talk to you* or *the man who wanted to talk to you*. The grammatical rules governing the use of *who* and *whom* apply equally to *whoever* and *whomever*. See Usage Notes at **else**, **that**, **whose**.

**WHO** *abbr.* World Health Organization.

**whod** (hwō, wō) *interj.* Used as a command to stop, as to a horse.

**who'd** (hōōd). **1.** Who would. **2.** Who had.

**who-dun-it** (hōō-dūr'it) *n.* Informal. A story dealing with a crime and its solution. [Alteration of *who done it?*]

**who-ev-er** (hōō-ēv'ər) *pron.* **1.** Whatever person or persons: *Whoever comes will be welcomed*. **2.** Who: *Whoever could have dreamed of such a thing?* See Usage Notes at **whatever**, **who**.

**whole** (hōl) *adj.* **1.** Containing all components; complete: *a whole wardrobe for the tropics*. **2.** Not divided or disjointed; in one unit: *a whole loaf*. **3.** Constituting the full amount, extent, or duration: *The baby cried the whole trip home*. **4.a.** Not wounded, injured, or impaired; sound or unharmed: *escaped the fire with a whole skin*. **b.** Having been restored; healed: *a whole person again*. **5.** Having the same parents: *a whole sister*. **6.** Mathematics. Not fractional; integral. —**whole** *n.* **1.** A number, group, set, or thing lacking no part or element; a complete thing. **2.** An entity or a system made up of interrelated parts: *treating the human body as a whole*. —**whole** *adv.* Informal. Entirely; wholly: *a whole new idea*. —**idioms**, *as a whole*. All parts or aspects considered; altogether: *disliked the acting but enjoyed the play as a whole*. **on the whole**. **1.** Considering everything: *on the whole, a happy marriage*. **2.** In most instances or cases; as a rule: *can expect sunny weather, on the whole*. [Middle English *hole*, unharmed, from Old English *hāl*. See **kallo-** in Appendix.] —**whole-ness** *n.*

**SYNONYMS:** *whole, all, entire, gross, total*. The central meaning shared by these adjectives is "including every constituent or individual": *a whole town devastated by an earthquake; all the class going on a field trip; entire freedom of choice; gross income; the total cost*.

**ANTONYM:** *partial*.

**whole blood** *n.* Blood drawn from the body from which no constituent, such as plasma or platelets, has been removed.

**whole cloth** *n.* Pure fabrication or fiction: *"He invented, almost out of whole cloth, what it means to be American"* (Ned Rorem). *"His account of being drugged, kidnapped and tortured was made up of whole cloth"* (George Carver). [From the fabrication of garments out of newly manufactured, full-sized pieces of cloth.]

**whole gale** *n.* Meteorology. A wind with a speed ranging from 55 to 63 miles (87 to 102 kilometers) per hour, according to the Beaufort scale.



Eli Whitney

Exhibit 10

S.P.

WEST'S

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*Special Deluxe*  
*Edition*

William P. Statsky

AUG 12 1993

West Publishing Company

St. Paul New York Los Angeles San Francisco

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## **Aplomb**

**Aplomb**, *n.* See self-confidence, restraint (2), balance (5), composure.

**Apocryphal**, *adj.* See fictitious, counterfeit (2), false, deceptive, deceitful.

**Apogee**, *n.* See apex.

**Apologetic**, *adj.* See contrite.

**Apologist**, *n.* See advocate (1).

**Apology**, *n.* See acknowledgment (1), amends, defense.

**Apoplexy**, *n.* A sudden loss of consciousness, sensation, and voluntary motion due to an escape of blood or serum into the brain or spinal cord.

**Apostasy**, *n.* A renunciation of principles. Defection, desertion, backsliding, abandonment, repudiation, falling away, treason, betrayal, disloyalty, heterodoxy, perfidy, withdrawal, secession. See also rebellion, defiance, insubordination; heresy.

**A posteriori** From the effect to the cause (a posteriori reasoning). Inductive, empirical, from the particular to the general. *Ant.* A priori.

**Apostle**, *n.* Missionary. Proselytizer, evangelist, minister, disciple, propagandist, witness, pioneer. See also deputy, messenger, advocate.

**Apothecary**, *n.* Pharmacist. Druggist, chemist.

**Appall**, *v.* See outrage (2)

**Appalled**, *adj.* See agape.

**Appalling**, *adj.* Frightening. Ghastly, alarming, intimidating, terrible, grim, horrible, awful. See also repulsive, odious.

**Apparatus**, *n.* Machinery. Appliance, contraption, paraphernalia, tool, outfit, gear, engine. See also instrument (2), equipment, device.

**Apparel**, *n.* Garments. Vestments, attire, wardrobe, uniform, cover, adornment, dress, outfit, costume "duds," array, robes, habit. See also clothes.

**Apparent**, *adj.* 1. Capable of being clearly seen or understood (an apparent defect). Perceptible, unmistakable, discernible, visible, unconcealed, clear, obvious, evident, distinct, manifest, overt, patent, plain, lucid, prominent, flagrant, blatant, noticeable, uncovered, glaring, unveiled, conspicuous, tangible, express, definite, identifiable, self-evident, recognizable. 2. Seeming (it was an apparent victory, although all of the facts are not yet in). Ostensible, probable, presumptive, presumable, likely, conceivable, expected, alleged, illusory, deceptive, pseudo, plausible, superficial, external, outward, unreal, hopeful, prospective, contemplated. *Ant.* Ambiguous; unlikely.

**Apparent authority** Authority of an agent that exists because the principal knowingly or negligently permits the agent to exercise it, or because the principal holds the agent out as possessing it.

**Apparition**, *n.* See ghost, demon.

**Appeal** 1. *n.* Asking a higher tribunal to review the decision of an inferior tribunal (notice of appeal). Petition, appellate review, reexamination. 2. *n.* A call for help (the appeal went unnoticed). Entreaty, request, supplication, solicitation, prayer, adjuration, address, suit, plea. See also application (1). 3. *n.* Attraction (the evidence had considerable appeal). Fascination, interest, allure, magnetism, draw, pull, charm. See also market (3). 4. *v.* To make a request (she appealed for help). Implore, beg, beseech, plead, entreat, pray, apply, sue, invoke, resort, adjure, supplicate.

**Appeal bond** A bond submitted by the person bringing an appeal which will cover the costs of the opponent if a determination is made that the appeal had no merit or that it was not prosecuted with effect.

**Appealing**, *adj.* See cogent, attractive, enjoyable, beautiful, outstanding (2), intriguing, compelling.

**Appear**, *v.* 1. To come formally and properly before a tribunal (he appeared solely to contest the court's jurisdiction). Enter an appearance, submit oneself to,

Exhibit 11

SIP.

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*Special Deluxe  
Edition*

William P. Statsky

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## Developer

builder, originator, designer, organizer.

**Development**, *n.* 1. Advancement (the development of the theory). Progression, evolution, growth, expansion, strengthening, unfolding, improvement, history, flowering, advance, maturation, escalation, enlargement, furtherance, organization, transformation, betterment, increase, ripening. 2. An event (an unexpected development in the case). Circumstance, phenomenon, upshot, aftermath, result, happening, episode, occurrence, item, incident. *Ant.* Stagnation (1).

**Developing**, *adj.* See formative, malleable, amenable (2).

**Devest**, *v.* To take away. See withdraw (1).

**Deviant** 1. *adj.* Not following accepted norms of society (deviant behavior).

Abnormal, nonconforming, deviate, atypical, unnatural, eccentric, unorthodox, aberrant, stray, unconventional, wandering, idiosyncratic, anomalous. 2. *n.* Someone who violates conventional social and moral standards, often in the area of sexuality (they rejected him because they believed he was a deviant). Pervert, deviate, degenerate, sadist, masochist, fiend, psychopath, maniac. *Ant.* Conventional.

**Deviate** 1. *v.* To wander or depart (she deviated from her regular duties). Part, veer, alter, diverge, bend, sidetrack, swerve, change direction, vary, clash, meander, drift, detour. See also wander, digress, stray, depart. 2. *n.* See deviant (2). *Ant.* Adhere (1).

**Deviating**, *adj.* See nonconforming, irregular, deviant (1).

**Deviation**, *n.* Departure from established or usual conduct or ideology (a deviation from the trial strategy). Alteration, discrepancy, variance, switching, variation, change of direction, nonobservance, detour, diversion, nonconformity, disparity, aberration, shifting, digression, anomaly, separation. See also deviant; nonconforming. *Ant.* Conformity.

**Deviation doctrine** A doctrine that allows a variation in the terms of a will or trust where the purposes of the document would be defeated if the variation is not allowed.

**Device**, *n.* 1. An invention or contrivance (gambling device). Apparatus, mechanism, instrument, tool, gadget, contraption, implement, equipment, agent, appliance, expedient, creation, invention, makeshift. 2. A scheme to trick or deceive (a device to increase the damages). Artifice, ruse, stratagem, conspiracy, gimmick, subterfuge, maneuver, setup, fraud, hoax, plot, angle, design.

**Devil**, *n.* See demon, wrongdoer.

**Devilish**, *adj.* See inhuman, cruel, animal (2), bad (2).

**Devil's advocate**, *n.* One who takes an opposing view in order to test the validity of a position. See advocate.

**Deviltry**, *n.* See mischief.

**Devious**, *adj.* Dishonest (devious behavior). Cunning, crafty, deceptive, deceitful, fraudulent, sly, indirect, calculating, Machiavellian, treacherous, insidious, circuitous, tortuous, evasive, covert, serpentine, not straightforward, plotting, disingenuous, surreptitious, roundabout. *Ant.* Frank.

**Devisavit vel non** An issue as to whether a document is the will of the testator.

**Devise** 1. *n.* The gift of land (and sometimes personal property) through a will (a devise of all my lands). Testamentary disposition, bequest, conveyance, transfer, legacy, inheritance. 2. *v.* To dispose of land or personal property by will (he devised his property to his son). Confer, give, convey, bequeath, will, endow, hand down, assign, allot, leave. 3. *v.* To invent (she devised a paralegal training program). Plan, create, formulate, organize, arrange, prepare, construct, contrive, compose, originate, design. See also frame (1).

**Devisee**, *n.* The person to whom real property is devised or given in a will.

**Devisor**, *n.* The person who devises or gives real property in a will.

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- all
- all' ottava
- all' unisono
- all-

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Dictionary

all

adjective \ˈɔl\

- : the whole, entire, total amount, quantity, or extent of
- : every member or part of
- : the whole number or sum of

Take a 2-minute break to test your vocabulary. »

Full Definition of ALL

- 1 **a** : the whole amount, quantity, or extent of <needed *all* the courage they had> <sat up *all* night>
- b** : as much as possible <spoke in *all* seriousness>
- 2 : every member or individual component of <*all* men will go> <*all* five children were present>
- 3 : the whole number or sum of <*all* the angles of a triangle are equal to two right angles>
- 4 : EVERY <*all* manner of hardship>
- 5 : any whatever <beyond *all* doubt>
- 6 : nothing but : ONLY:
  - a** : completely taken up with, given to, or absorbed by <became *all* attention>
  - b** : having or seeming to have (some physical feature) in conspicuous excess or prominence <*all* legs>
  - c** : paying full attention with <*all* ears>

Words at Play



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a short and clever poem or saying

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Word Games

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Name That Thing



7 *dial* : used up : entirely consumed —used especially of food and drink

8 : being more than one person or thing <who *all* is coming>

— *all the*

: as much of ... as : as much of a ... as <*all the* home I ever had>

See all defined for English-language learners »

See all defined for kids »

True or False?



Spell It



### Examples of ALL

I've been waiting *all* week to see her.

He had to walk *all* the way home.

She works *all* year round.

He'll need *all* the help he can get

Someone took *all* the candy.

### Origin of ALL

Middle English *all*, *al*, from Old English *eall*; akin to Old High German *all* *al*

First Known Use: before 12th century

### Related to ALL

#### Synonyms

whole, concentrated, entire, exclusive, focused (*also* focussed), undivided

#### Antonyms

diffuse, divided, scattered

#### [+] more

See Synonym Discussion at WHOLE

### Rhymes with ALL

awl, ball, bawl, brawl, call, caul, crawl, doil, drawl, fall, gall, hall, haul, kraal, mall, maul, moll, pall, pawl, Saul, scall, scrawl, ...

#### [+] more

<sup>2</sup>all

*adverb*

: entirely or completely

: for each side or player

### Full Definition of ALL

**1** *a* : WHOLLY, QUITE <sat *all* alone> —often used as an intensive <*all* out of proportion> <*all* over the yard> <it wasn't *all* that funny>

*b* : selected as the best (as at a sport) within an area or organization —used in combination <*all*-league halfback>

**2** *obsolete* : ONLY, EXCLUSIVELY

**3** *archaic* : JUST

**4** : so much <*all* the better for it>

### Trend Watch



Depraved-Heart  
Murder

Six police officers charged in  
the death of Freddie Grey ...

**5** : for each side : APIECE <the score is two *all*>

See all defined for English-language learners »

#### Examples of ALL

She has traveled *all* around the world.

This money will be *all* yours when I die.

She had buttons *all* down the side of her dress.

I forgot *all* about paying the bill.

The kids got *all* excited when they saw Santa Claus.

#### First Known Use of ALL

before 12th century

#### Related to ALL

##### Synonyms

fully, all of, all over, altogether, clean, completely, dead, enough, entire, entirely, even, exactly, fast, flat, full, heartily, out, perfectly, plumb [*chiefly dialect*], quite, soundly, thoroughly, through and through, totally, utterly, well, wholly, wide

##### Antonyms

half, halfway, incompletely, part, partially, partly

[+] more

## <sup>3</sup>all

*pronoun, singular or plural in construction*

#### Definition of ALL

**1** **a** : the whole number, quantity, or amount : TOTALITY <*all that I have*> <*all of us*> <*all of the books*>

**b** —used in such phrases as *for all I know*, *for all I care*, and *for all the good it does* to indicate a lack of knowledge, interest, or effectiveness

**2** : EVERYBODY, EVERYTHING <*gave equal attention to all*> <*that is all*>

— **all in all**

: on the whole : GENERALLY <*all in all*, things might have been worse>

— **and all**

: and everything else especially of a kind suggested by a previous context <*cards to fill out with ... numbers and all* — Sally Quinn>

#### First Known Use of ALL

before 12th century

## <sup>4</sup>all

*noun*

#### Definition of ALL

: the whole of one's possessions, resources, or energy <*gave his all for the cause*>

First Known Use of ALL

1593

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whole

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4 ENTRIES FOUND:

- whole** (adjective)
- whole blood** (noun)
- whole-body** (adjective)
- whole food** (noun)

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### Medical Dictionary

## whole

*adj* \ˈhōl\

#### Medical Definition of WHOLE

: containing all its natural constituents, components, or elements : deprived of nothing by refining, processing, or separation <*whole milk*>

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a short and clever poem or saying

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whole



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6 ENTRIES FOUND:

- whole (adjective)
- whole (noun)
- whole number (noun)
- whole-souled (adjective)

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Word of the Day

MAY 05, 2015

epigram

a short and clever poem or saying

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Thesaurus

whole

adjective

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Synonyms and Antonyms of WHOLE

- not divided or scattered among several areas of interest or concern <you'll need to put your *whole* effort into this project>  
**Synonyms** all, concentrated, entire, exclusive, focused (also focussed), undivided  
**Related Words** absolute, complete, full, lump, teetotal, thorough, total, unadulterated, unalloyed, unqualified, utter; comprehensive, intact, integral, perfect, unbroken  
**Near Antonyms** deficient, fragmental, fragmentary, halfway, incomplete, partial  
**Antonyms** diffuse, divided, scattered
- enjoying health and vigor <*whole* and happy again after months of recuperation>  
**Synonyms** able-bodied, bouncing, fit, hale, hearty, robust, sound, well, well-conditioned, whole, wholesome  
**Related Words** hard, hardy, iron, lusty, rugged, stalwart, strong, sturdy, tough; ambulatory, nondisabled, uncrippled; active, agile, chipper, lively, sprightly, sprightly, spry, vigorous, vital; blooming, clean-cut, flourishing, flush, prospering, thriving; all right, good, right  
**Near Antonyms** decrepit, enfeebled, feeble, infirm, run-down, sickened, sickly, weak, weakened, weakly, worn-out; challenged, crippled, debilitated, differently abled, disabled, halt, incapacitated, lame; delicate, fragile, frail; emaciated, gaunt, haggard, malnourished, undernourished; afflicted, troubled; bad, poorly  
**Antonyms** ailing, diseased, ill, sick, unfit, unhealthy, unsound, unwell
- not lacking any part or member that properly belongs to it <the puzzle isn't quite *whole*, but close enough>  
**Synonyms** compleat, comprehensive, entire, full, grand, intact, integral, perfect, plenary, total, whole  
**Related Words** unabridged, uncut, undiminished; all-out, exhaustive, extensive, maximal; full-blooded, full-blown, full-bore, full-fledged, full-on, full-out, full-scale  
**Near Antonyms** abbreviated, abridged, cut, diminished, reduced  
**Antonyms** imperfect, incomplete, partial

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Fun, Funnier, Funnest

Seen & Heard

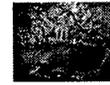
What made you want to look up *whole[adjective]*? Please tell us where you read or heard it (including the quote, if possible).



 **Jim McMahon** · NAILBITER at Cakewalk & Sledgehammer  
 The almighty holy God.  
 Reply · Like · November 29, 2014 at 11:05pm

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Exhibit 15



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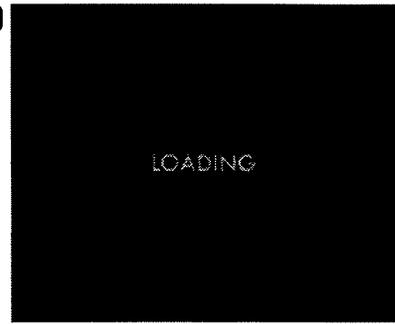
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hola



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Dictionary

hola

*interjection* ho·la ˈhɔ(,)ljə

Definition of HOLA

—used especially among Latin Americans to attract attention or to shout encouragement or exultation

Origin of HOLA

Spanish

This word doesn't usually appear in our free dictionary, but the definition from our premium Unabridged Dictionary is offered here on a limited basis. Note that some information is displayed differently in the Unabridged.

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All Words Near: hola

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Where Did the Definition of Tact Come From?

From?



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Word of the Day

MAY 05, 2015

epigram

a short and clever poem or saying

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Name That Thing



Exhibit 16

WHAT'S  
NEW  
AWARDS

TOP TECH 2006

# POPULAR SCIENCE

GEEK  
OF THE MONTH



DIY Disco Floor p.115

THE  
FUTURE  
NOW

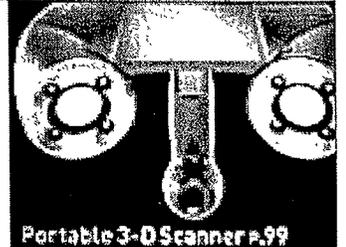
# 100



5 Megapixels in a Phone p.58



Game Master p.80



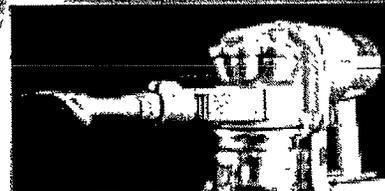
Portable 3-D Scanner p.99

# BEST INNOVATIONS OF THE YEAR

What's #1? See p.41



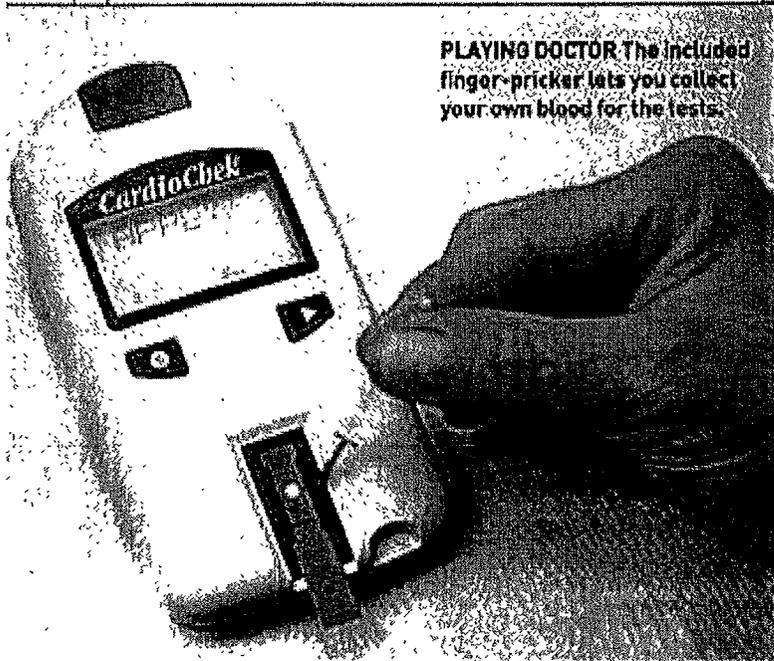
253 mph, 1,001 Horsepower  
\$1.2 Million p.71



WWW.POPSCI.COM  
December 2006 US\$9.99 CAN\$1.69



## TALES OF TESTING



**PLAYING DOCTOR** The included finger-pricker lets you collect your own blood for the tests.

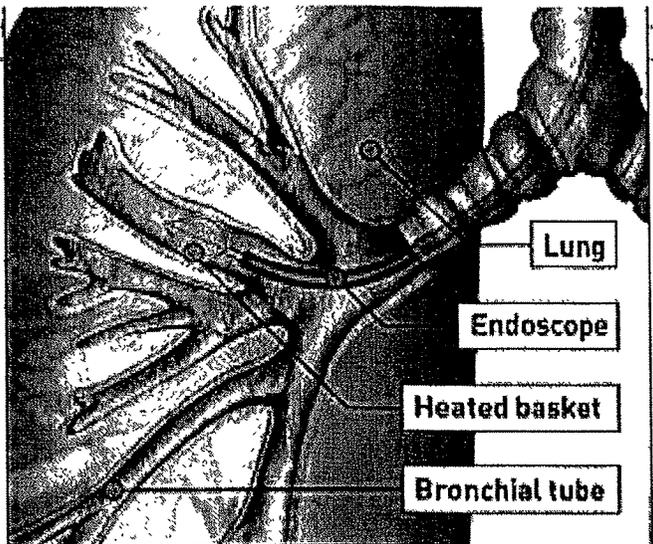
POLYMER TECHNOLOGY SYSTEMS CAROIDCHEK  
**THE FIRST AT-HOME  
 CHOLESTEROL TEST**

**AFTER A PHYSICAL EXAM** two years ago showed that I had borderline high cholesterol—at age 28—I quit smoking, cut my onion-ring intake, and started running again. Lately I'd been wondering if it all helped, but I don't like going to the doctor. Lucky for me, the handheld, battery-powered CardioChek let me run five tests—including my levels of HDL (good) cholesterol, triglycerides and glucose—right at my bathroom counter. To fit all those tests into one unit, inventors developed a series of chemical-permeated plastic strips that react with plasma in a blood sample. I just pricked my finger with an included lancet (looking away because I'm a wimp), put a drop of blood on a strip, and inserted it into the unit, where internal sensors analyzed the strip's subsequent color changes. Two minutes later, my results appeared on the digital display: all normal. Time for some onion rings. —MIKE HANEY \$120; [cardiochek.com](http://cardiochek.com)

MERCK GARDASIL

**A HOT-SHOT VACCINE  
 FOR CANCER**

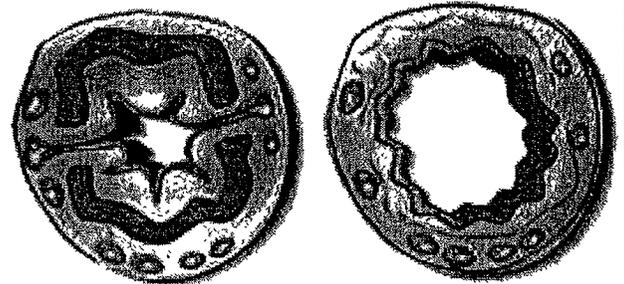
**ALMOST 5,000 WOMEN** die of cervical cancer every year. Gardasil is a preemptive strike against the disease, protecting patients from strains of sexually transmitted human papillomavirus (HPV), which can cause cancerous growths. Gardasil uses virus-like particles that contain the same proteins as HPV, spurring the body's immune response to attack the real thing. This year, the FDA deemed the vaccine safe for girls as young



ASTHMATX ALAIR SYSTEM

**A WAY TO FRY  
 ASTHMA ATTACKS**

**NO MORE PUFFING** on the inhaler or popping pills. The Alair system is an experimental surgical procedure that could ward off asthma attacks without drugs. During three half-hour treatments, a doctor snakes a catheter into the lungs' airways, where it extends a basket-like tip that pushes against the airway walls. The system delivers a 10-second pulse of radio-frequency energy, heating the surrounding muscles, which limits their ability to contract—the typical wheeze-inducing reaction to triggers like dust. Clinical tests are now under way. [asthmatx.com](http://asthmatx.com)



**BREATHE EASY** The airways of an asthmatic constrict (left), causing wheezing. The Alair treatment opens them (right) using heat and requires no anesthetic.

INTRALYTX LMP 100

**STOPPING KILLER MEAT**

**E. COLI GRABS ALL THE HEADLINES**, but the little-known listeria bacterium is even deadlier, killing one of every three people who contract it, typically from processed cheese or cold cuts. This year, the FDA approved the most effective, albeit bizarre, defense yet: spray-on viruses that munch bacteria. One spritz at the meat-processing plant keeps

Exhibit 17

ESTTA Tracking number: **ESTTA619631**

Filing date: **08/05/2014**

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

Proceeding	91216205
Party	Defendant Reckitt Benckiser LLC
Correspondence Address	MARK LERNER SATTERLEE STEPHENS BURKE & BURKE LLP 230 PARK AVE, RM 1130 NEW YORK, NY 10169-0079 UNITED STATES mlerner@ssbb.com
Submission	Withdrawal Of Application
Filer's Name	Mark Lerner
Filer's e-mail	mlerner@ssbb.com
Signature	/mark lerner/
Date	08/05/2014
Attachments	slip.pdf(143400 bytes )

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

-----  
BOSTON SCIENTIFIC CORPORATION and  
ASTHMATX, INC.

Opposition No. 91216205

Opposers,

STIPULATED WITHDRAWAL  
OF APPLICATION WITH  
PREJUDICE

-against-

RECKITT BENCKISER, LLC,

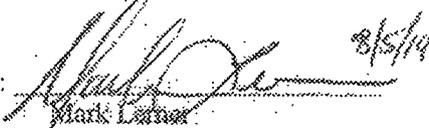
Applicant.  
-----

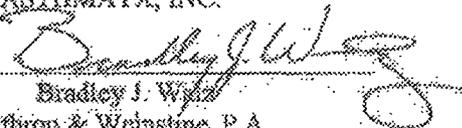
It is hereby stipulated and agreed between the parties that the subject application in this proceeding is hereby expressly withdrawn, by consent of the parties, with prejudice pursuant to TBMP 602.01, 37 C.F.R. § 2.135.

SO STIPULATED AND AGREED:

RECKITT BENCKISER LLC

BOSTON SCIENTIFIC CORPORATION  
and ASTHMATX, INC.

By:  8/5/14

By: 

Mark Lerner

Bradley J. Wynn

Sattalde Stephens Burke & Burke LLP  
230 Park Avenue  
New York, New York 10169  
(212) 818-9200

Widthrop & Weinstine, P.A.  
225 S 6th Street, Suite 3500  
Minneapolis, MN 55402  
(612) 604-6725

ATTORNEYS FOR  
RECKITT BENCKISER LLC

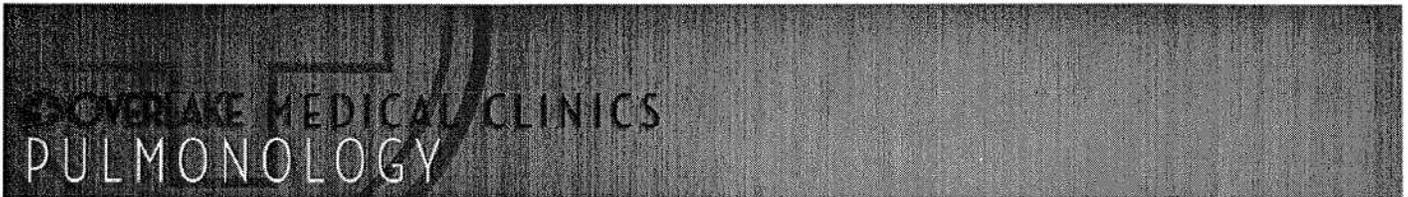
ATTORNEYS FOR  
BOSTON SCIENTIFIC CORPORATION  
and ASTHMATX, INC.

9561325v1

1996055\_1

BSC000780

Exhibit 18



## Overlake Medical Clinics Pulmonary Medicine

Overlake Medical Clinics Pulmonary and Critical Care Specialists, located on the sixth floor of the Medical Tower, is staffed by specialists who are board certified in the fields of pulmonary medicine, critical care medicine and internal medicine. In addition to clinical care for related illnesses, our physicians have engaged in research related to lung diseases. They regularly attend national and international meetings to review and sometimes speak on their pulmonary specialties.

Your patients will receive the highest level of care possible. We offer a full line of state-of-the-art diagnostic and therapeutic services within our specialty. Our physicians specialize in caring for patients, both the common and complex pulmonary disorders that require the time and the expertise of a specialist in pulmonary diseases and critical care medicine. As a patient, you have access to the latest technology, and highly trained technical and clinical staff who make your care their priority.

Our team of physicians includes:

- [Radha Agrawal, MD](#)
- [James R. Copeland, MD, PhD](#)
- [Todd D. Freudenberg, MD, MSc](#)
- [Frantz C. Hastrup, MD](#)
- [Sun-Jung Lim, MD](#)
- [Amy J. Markezich, MD](#)

### Introducing: Bronchial Thermoplasty

Bronchial Thermoplasty is a non-drug procedure that will help severe asthma patients achieve better control of their symptoms all year long. The procedure is being performed by Amy Markezich, MD and Frantz Hastrup, MD, pulmonologists skilled in bronchoscopy and specially trained to perform bronchial thermoplasty. Bronchial thermoplasty is an outpatient procedure that treats severe asthma by going to the source. The lungs consist of multiple airway passages that are surrounded by airway smooth muscle. For people with asthma, this airway smooth muscle is more susceptible to triggers and irritants that can cause it to constrict and reduce the amount of air that flows through the lungs. Bronchial thermoplasty uses a small catheter to deliver controlled energy to the airways of the lung to reduce the amount of excessive airway smooth muscle. This reduction decreases the muscle's ability to constrict the airways, resulting in a decreased frequency of asthma attacks.

Bronchial thermoplasty with the Alair<sup>®</sup> System is approved by the FDA for adults with severe asthma who are not well controlled on current medications, and is expected to complement asthma medications by providing long-lasting asthma control. The procedure is routinely performed under moderate sedation and the patient goes home the same day. To treat the entire lung, the complete bronchial thermoplasty procedure is performed in three separate outpatient treatment sessions, each treating a different area of the lung and scheduled approximately three weeks apart.

In clinical studies, the benefits of bronchial thermoplasty included reduced severe asthma attacks, decreased visits to the ER and hospital for respiratory symptoms, and less time lost from work or school due to asthma.

- 44% average decrease in percent of patients having severe exacerbations compared to the year prior to bronchial thermoplasty.
- 48% average decrease in severe exacerbation event rates compared to the year prior to bronchial thermoplasty.
- 88% percent average decrease in ER visit event rates compared to the year prior to bronchial thermoplasty.

#### More Information

### Additional Pulmonary Procedures Offered

- Full Cardiopulmonary Exercise Testing ([CPET](#))
- Complete Pulmonary Function Testing ([PFT](#))
- Performance Exercise Testing (PXT)
- Chest X-ray
- Fiberoptic Bronchoscopy
- Endobronchial Ultrasound
- Pleur-X Catheter Insertion

#### **Additional Resources:**

[American Lung Association](#)

<http://www.overlakehospital.org/services/medical-clinics/specialty/pulmonology/>

National Institutes of Health

**Location:**

1135 116th Avenue NE, Suite 600

Bellevue, WA 98004

425-454-2671

**Clinic Hours:** Monday through Friday, 8:30 a.m. to 5 p.m.

---

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Exhibit 19

Article Link: <http://www.webmd.com/lung/obstructive-and-restrictive-lung-disease>

## Lung Disease & Respiratory Health Center



# Obstructive and Restrictive Lung Disease

In this article

[What Is Obstructive Lung Disease?](#)

[What Is Restrictive Lung Disease?](#)

[Diagnosis of Obstructive Lung Disease and Restrictive Lung Disease](#)

[Symptoms of Obstructive and Restrictive Lung Disease](#)

[Treatments for Obstructive Lung Disease](#)

[Treatments for Restrictive Lung Disease](#)

Listen 

Doctors may classify lung conditions as obstructive lung disease or restrictive lung disease. Obstructive lung diseases include conditions that make it hard to exhale all the air in the lungs. People with restrictive lung disease have difficulty fully expanding their lungs with air.

Obstructive and restrictive lung disease share the same main symptom: shortness of breath with exertion.

## What Is Obstructive Lung Disease?

People with obstructive lung disease have shortness of breath due to difficulty exhaling all the air from the lungs. Because of damage to the lungs or narrowing of the airways inside the lungs, exhaled air comes out more slowly than normal. At the end of a full exhalation, an abnormally high amount of air may still linger in the lungs.

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The most common causes of obstructive lung disease are:

- Chronic obstructive pulmonary disease (COPD), which includes emphysema and chronic bronchitis
- Asthma
- Bronchiectasis
- Cystic fibrosis

Obstructive lung disease makes it harder to breathe, especially during increased activity or exertion. As the rate of breathing increases, there is less time to breathe all the air out before the next inhalation.

## What Is Restrictive Lung Disease?

People with restrictive lung disease cannot fully fill their lungs with air. Their lungs are *restricted* from fully expanding.

Restrictive lung disease most often results from a condition causing stiffness in the lungs themselves. In other cases, stiffness of the chest wall, weak muscles, or damaged nerves may cause the restriction in lung expansion.

Some conditions causing restrictive lung disease are:

- Interstitial lung disease, such as idiopathic pulmonary fibrosis
- Sarcoidosis, an autoimmune disease
- Obesity, including obesity hypoventilation syndrome
- Scoliosis
- Neuromuscular disease, such as muscular dystrophy or amyotrophic lateral sclerosis (ALS)

## Diagnosis of Obstructive Lung Disease and Restrictive Lung Disease

Most commonly, people with obstructive or restrictive lung disease seek a doctor because they feel short of breath.

Restrictive and obstructive lung diseases are identified using pulmonary function tests. In pulmonary function testing, a person blows air forcefully through a mouthpiece. As the person performs various breathing maneuvers, a machine records the volume and flow of air through the lungs. Pulmonary function testing can identify the presence of obstructive lung disease or restrictive lung disease, as well as their severity.

## Diagnosis of Obstructive Lung Disease and Restrictive Lung Disease continued...

A doctor's interview (including smoking history), physical exam, and lab tests may provide additional clues to the cause of obstructive lung disease or restrictive lung disease.

Imaging tests are almost always part of the diagnosis of restrictive and obstructive lung disease. These include:

- Chest X-ray film
- Computed tomography (CT scan) of the chest

In some people, a bronchoscopy may be recommended to diagnose the lung condition causing obstructive or restrictive lung disease. In a bronchoscopy, a doctor uses an endoscope (a flexible tube with a camera and tools on its tip) to look inside the airways and take samples of lung tissue (biopsies).

## Symptoms of Obstructive and Restrictive Lung Disease

Obstructive lung disease and restrictive lung disease cause shortness of breath. In early stages of obstructive or restrictive lung disease, shortness of breath occurs only with exertion. If the underlying lung condition progresses, breathlessness may occur with minimal activity, or even at rest.

Cough is a common symptom in restrictive and obstructive lung diseases. Usually, the cough is dry or productive of white sputum. People with chronic bronchitis, a form of obstructive lung disease, may cough up larger amounts of colored sputum.

Symptoms of depression and anxiety are also common among people with obstructive lung disease and restrictive lung disease. These symptoms occur more often when lung disease causes significant limitations in activity and lifestyle.

## Treatments for Obstructive Lung Disease

Obstructive lung disease treatments work by helping to open narrowed airways. Airways may be narrowed by constriction of involuntary muscles that surround the airways (bronchospasm).

Medicines that relax these smooth muscles and improve airflow are called bronchodilators, and are inhaled. These include:

- Albuterol (Proventil HFA, Ventolin HFA, AccuNeb)
- Ipratropium (Atrovent)
- Formoterol (Foradil)
- Salmeterol (Serevent)
- Tiotropium (Spiriva)
- Combined medications like Combivent, DuoNeb, and Advair, which include a bronchodilator

Theophylline (Theo-Dur and other brand names) is a rarely used bronchodilator taken as an oral tablet.

Inflammation also contributes to airway narrowing in obstructive lung disease. Inflamed airway walls may be swollen and filled with mucus, obstructing airflow. Various medicines help reduce inflammation in obstructive lung disease, including:

- inhaled corticosteroids (Aerobid, Azmacort, Flovent, Pulmicort, Advair, QVAR, and others)

- oral corticosteroids (prednisone and others)
- montelukast (Singulair)

A program of regular exercise will improve symptoms of breathlessness in virtually all people with obstructive lung disease. Oxygen therapy may be necessary for some people.

In severe cases of end-stage, life-threatening obstructive lung disease, lung transplantation can be considered as a treatment option.

## Treatments for Restrictive Lung Disease

Few medicines are available to treat most causes of restrictive lung disease.

Two drugs, Esbriet (pirfenidone) and Ofev (nintedanib), are FDA-approved to treat idiopathic pulmonary fibrosis. They act on multiple pathways that may be involved in the scarring of lung tissue. Studies show both medications slow decline in patients when measured by pulmonary function tests.

In cases of restrictive lung disease caused by ongoing inflammation, medicines that suppress the immune system may be used, including:

- Corticosteroids (such as prednisone)
- Azathioprine (Imuran)
- Cyclophosphamide
- Methotrexate

Supplemental oxygen therapy may be necessary. Mechanical breathing assistance may be helpful to some people with breathing difficulty from restrictive lung disease. Non-invasive positive pressure ventilation (BiPAP) uses a tight-fitting mask and a pressure generator to assist breathing. BiPAP is helpful for people with obesity hypoventilation syndrome and some nerve or muscle conditions causing restrictive lung disease.

In cases of obesity-related lung disease, weight loss and exercise can help reduce the resistance to breathing caused by excess fat.

## Treatments for Restrictive Lung Disease continued...

Severe, end-stage restrictive lung disease (such as idiopathic pulmonary fibrosis) may be treated with lung transplantation.

Regular exercise improves shortness of breath and quality of life in almost everyone with restrictive lung disease.

WebMD Medical Reference  
SOURCE:

Mason, R. Murray and Nadel's *Textbook of Respiratory Medicine*, 5th Edition, Saunders, 2010.

News release, FDA.

Reviewed by Kimball Johnson, MD on September 04, 2012

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My Notes:

## Further Reading:

Slideshow: A Visual Guide to COPD

10 Signs of a COPD Exacerbation

Short of Breath? Tips for COPD Breathlessness

COPD Exacerbation Symptoms: Wheezing, Coughing, and More

Understanding the Symptoms of Wheezing

COPD Quiz: Emphysema, Bronchitis, and Keeping Your Lungs Healthy

Anxiety-Check Your Symptoms

**See All Breathlessness Topics**

## Top Picks

5 Things You Didn't Know About Male Masturbation

Asthma, Steroids, and Other Anti-Inflammatory Drugs

Lumbar Spinal Stenosis-Symptoms

Corticosteroids for Cystic Fibrosis

High Blood Pressure-Frequently Asked Questions

Asthma in Teens and Adults-Medications

Exhibit 20

# Obstructive lung disease

From Wikipedia, the free encyclopedia

**Obstructive lung disease** is a category of respiratory disease characterized by airway obstruction. It is generally characterized by inflamed and easily collapsible airways, obstruction to airflow, problems exhaling and frequent medical clinic visits and hospitalizations. Types of obstructive lung disease include asthma, bronchiectasis, bronchitis and chronic obstructive pulmonary disease (COPD). Although COPD shares similar characteristics with all other obstructive lung diseases, such as the signs of coughing and wheezing, they are distinct conditions in terms of disease onset, frequency of symptoms and reversibility of airway obstruction.<sup>[1]</sup> Cystic fibrosis is also sometimes included in obstructive pulmonary disease.<sup>[2]</sup>

## Obstructive lung disease

*Classification and external resources*

MeSH D008173

([http://www.nlm.nih.gov/cgi/mesh/2014/MB\\_cgi?field=uid&term=D008173](http://www.nlm.nih.gov/cgi/mesh/2014/MB_cgi?field=uid&term=D008173))

## Contents

- 1 Diagnosis
- 2 Types
  - 2.1 Asthma
  - 2.2 Bronchiectasis
  - 2.3 Chronic obstructive pulmonary disease
- 3 See also
- 4 References

## Diagnosis

Diagnosis of obstructive disease requires several factors depending on the exact disease being diagnosed. However one commonality between them is a decreased FEV1/FVC ratio, which is the ability to exhale 70% of their breath within one second.

Following is an overview of the main obstructive lung diseases. *Chronic obstructive pulmonary disease* is mainly a combination of chronic bronchitis and emphysema, but may be more or less overlapping with all conditions.<sup>[3]</sup>

Condition	Main site	Major changes	Causes	Symptoms
<b>Chronic bronchitis</b>	Bronchus	Hyperplasia and hypersecretion of mucus glands	Tobacco smoking and air pollutants	Productive cough
<b>Bronchiectasis</b>	Bronchus	Dilation and scarring of airways	Persistent severe infections	Cough, purulent sputum and fever
<b>Asthma</b>	Bronchus	<ul style="list-style-type: none"> <li>■ Smooth muscle hyperplasia</li> <li>■ Excessive mucus</li> <li>■ Inflammation</li> <li>■ Constriction</li> </ul>	Immunologic or idiopathic	Episodic wheezing, cough and dyspnea
<b>Bronchiolitis</b> (subgroup of chronic bronchitis)	Bronchiole	Inflammatory scarring and bronchiole obliteration	Tobacco smoking and air pollutants	Cough, dyspnea

Unless else specified in boxes then reference is <sup>[3]</sup>

## Types

### Asthma

Asthma is an obstructive lung disease where the bronchial tubes (airways) are extra sensitive (hyperresponsive). The airways become inflamed and produce excess mucus and the muscles around the airways tighten making the airways narrower. Asthma is usually triggered by breathing in things in the air such as dust or pollen that produce an allergic reaction. It may be triggered by other things such as an upper respiratory tract infection, cold air, exercise or smoke. Asthma is a common condition and affects over 300 million people around the world.<sup>[4]</sup> Asthma causes recurring episodes of wheezing, breathlessness, chest tightness, and coughing, particularly at night or in the early morning.

- **Exercise-Induced Asthma** — is common in asthmatics, especially after participation in outdoor activities in cold weather.
- **Occupational Asthma** — An estimated 2% to 5% of all asthma episodes may be caused by exposure to a specific sensitizing agent in the workplace.
- **Nocturnal Asthma** — is a characteristic problem in poorly controlled asthma and is reported by more than two thirds of sub-optimally treated patients.

A peak flow meter can record variations in the severity of asthma over time. Spirometry, a measurement of lung function, can provide an assessment of the severity, reversibility, and variability of airflow limitation, and help confirm the diagnosis of asthma.<sup>[4]</sup>

### Bronchiectasis

Bronchiectasis refers to the abnormal, irreversible dilatation of the bronchi caused by destructive and inflammatory changes in the airway walls. Bronchiectasis has three major anatomical patterns: cylindrical bronchiectasis, varicose bronchiectasis and cystic bronchiectasis.

## Chronic obstructive pulmonary disease

Chronic obstructive pulmonary disease (COPD),<sup>[5]</sup> also known as chronic obstructive airways disease (COAD) or chronic airflow limitation (CAL), is a group of illnesses characterised by airflow limitation that is not fully reversible. The flow of air into and out of the lungs is impaired.<sup>[6]</sup> This can be measured with breathing devices such as a peak flow meter or by spirometry. The term COPD includes the conditions emphysema and chronic bronchitis although most patients with COPD have characteristics of both conditions to varying degrees. Asthma being a reversible obstruction of airways is often considered separately, but many COPD patients also have some degree of reversibility in their airways.

In COPD, there is an increase in airway resistance, shown by a decrease in the forced expiratory volume in 1 second (FEV1) measured by spirometry. COPD is defined as a forced expiratory volume in 1 second to forced vital capacity ratio (FEV1/FVC) that is less than 0.7.<sup>[7]</sup> The residual volume, the volume of air left in the lungs following full expiration, is often increased in COPD, as is the total lung capacity, while the vital capacity remains relatively normal. The increased total lung capacity (hyperinflation) can result in the clinical feature of a "barrel chest" - a chest with a large front-to-back diameter that occurs in some individuals with COPD. Hyperinflation can also be seen on a chest x-ray as a flattening of the diaphragm.

The most common cause of COPD is cigarette smoking. COPD is a gradually progressive condition and usually only develops after about 20 pack-years of smoking. COPD may also be caused by breathing in other particles and gases.

The diagnosis of COPD is established through spirometry although other pulmonary function tests can be helpful. A chest x-ray is often ordered to look for hyperinflation and rule out other lung conditions but the lung damage of COPD is not always visible on a chest x-ray. Emphysema, for example can only be seen on CT scan.

The main form of long term management involves the use of inhaled bronchodilators (specifically beta agonists and anticholinergics) and inhaled corticosteroids. Many patients eventually require oxygen supplementation at home. In severe cases that are difficult to control, chronic treatment with oral corticosteroids may be necessary, although this is fraught with significant side-effects.

COPD is generally irreversible although lung function can partially recover if the patient stops smoking.

Smoking cessation is an essential aspect of treatment.<sup>[8]</sup> Pulmonary rehabilitation programmes involve intensive exercise training combined with education and are effective in improving shortness of breath. Severe emphysema has been treated with lung volume reduction surgery, with some success in carefully chosen cases. Lung transplantation is also performed for severe COPD in carefully chosen cases.

Alpha 1-antitrypsin deficiency is a fairly rare genetic condition that results in COPD (particularly emphysema) due to a lack of the antitrypsin protein which protects the fragile alveolar walls from protease enzymes released by inflammatory processes.

## See also

Restrictive lung disease

[http://en.wikipedia.org/wiki/Obstructive\\_lung\\_disease](http://en.wikipedia.org/wiki/Obstructive_lung_disease)

## References

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Categories: Lung disorders | Respiratory therapy

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Exhibit 21



[Home](#) > [Pulmonary & Critical Care Medicine](#) > [Subspecialty Services](#)

## Asthma

### Obstructive Lung Disease Clinic

#### About our Practice

The obstructive lung disease clinic sees patients with asthma, chronic obstructive lung disease, emphysema, chronic bronchitis, and other diseases characterized by airway narrowing or obstruction. We can provide short-term consultation to establish or review a treatment plan, or longitudinal care. The clinic team will assess for disease severity, design a personalized treatment plan, and arrange for pulmonary rehabilitation, home oxygen, smoking cessation, dietary counseling, or other therapies as deemed appropriate. Patients may be offered the opportunity to participate in one of many ongoing clinical trials while receiving their care under the guidance of nationally known experts in their disease.

#### Scheduling an Appointment

New and returning patients may schedule an appointment by calling **410-550-LUNG (5864)**.

#### Patients should bring:

- Insurance information
- Recent medical records
- Pulmonary Function Test results
- X-rays and CT scans

unless performed at Johns Hopkins and available on our electronic records.

#### Location

Johns Hopkins Asthma and Allergy Center  
Second floor (entrance level)  
5501 Hopkins Bayview Circle  
Baltimore, Maryland 21224 - 6801

#### Our Physicians

[Robert A. Wise MD](#)  
Pulmonary and Critical Care Medicine

[Gregory B. Diette MD, MHS](#)  
Pulmonary and Critical Care Medicine

[Enid R. Neptune MD](#)  
Pulmonary and Critical Care Medicine

[Nadia Hansel MD, MPH](#)  
Pulmonary and Critical Care Medicine

[Mark C. Liu MD](#)  
Pulmonary and Critical Care Medicine

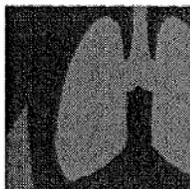
[Meredith C. McCormack, MD, MHS](#)  
Pulmonary and Critical Care Medicine

[M. Bradley Drummond, MD, PhD](#)  
Pulmonary and Critical Care Medicine

#### Our Staff

Christine Smith, RN  
Senior Clinic Nurse Coordinator

Exhibit 22



## Johns Hopkins Health Alerts Topic Page:

### Lung Disorders

[View All Lung Disorders Health Alerts](#)

Respiratory disorders serious enough to cause long-term breathing problems are common in the United States and will no doubt become more prevalent as the population gets older. Almost 400,000 Americans die of lung diseases every year, and over 35 million are now living with chronic lung disease.

Fortunately, technological advances are producing opportunities to prevent, diagnose, and treat lung diseases. As a result, people with these disorders live longer and better lives today than in the past.

At Johns Hopkins Health Alerts, you'll find articles on:

- **Asthma:** An inflammatory lung disease, asthma is characterized by shortness of breath, wheezing, coughing, and tightness in the chest. It is considered an obstructive lung disease because it causes narrowing of the airways.
- **Chronic obstructive pulmonary disease(COPD):** Like asthma, COPD is an obstructive lung disease; it includes **chronic bronchitis** and **emphysema**. Fortunately, there are many steps that people with COPD can take to make life easier.
- **Sleep apnea:** This condition refers to temporary, recurrent breathing interruptions that take place during sleep. Marked daytime drowsiness and snoring are two common signs of sleep apnea.
- **Interstitial lung disease:** The term "interstitial lung disease" refers to a group of conditions that cause extensive scarring of the interstitium, the tissue that makes up the walls of the air sacs in the lungs.
- **Lung cancer:** Most often caused by cigarette smoking, lung cancer is the leading cause of cancer death in the United States. While lung cancer often is not caught before it has spread and becomes difficult to treat, many new therapies are being tested.
- **Pulmonary embolism:** A pulmonary embolism usually occurs when a blood clot from a deep vein in the leg breaks loose and blocks one or more arteries to or within the lungs.
- **Infections:** Common lung infections include acute **bronchitis**, **influenza** (the flu), and **bacterial pneumonia**. Vaccines can help prevent some of these infections, and treatments are available to ease their impact when they do develop.

**How Johns Hopkins can help.** If you or someone you care about has COPD or another serious lung condition, obtaining accurate information is an important part of the treatment plan. Johns Hopkins Medicine is ideally positioned to provide you with timely, authoritative information and advice on treating lung disorders.

- At Johns Hopkins Health Alerts, Peter B. Terry, M.D., M.A., Professor of Medicine in the Division of Pulmonary and Critical Care Medicine at Johns Hopkins, and other leading pulmonologists review the most up-to-date information on the prevention, diagnosis, and management of lung disease.
- You'll read articles on: pulmonary rehabilitation, COPD complications, living with COPD, sleep apnea treatment plan, quiet symptoms of lung cancer, benefits of oxygen therapy, lung reduction surgery, complementary therapies for lung cancer, getting rid of dust mites, and much more.

For more information on **Lung Disorders** please visit the [BOOKSTORE](#).

Exhibit 23



AT THE FOREFRONT OF MEDICINE®

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Home > Specialties > Pulmonary > Asthma & COPD Center >

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## Refractory Obstructive Lung Disorders Clinic

The Refractory Obstructive Lung Disorders (ROLD) Clinic is a specialized care center devoted to the comprehensive assessment and treatment of adults who have difficult-to-control asthma, chronic obstructive pulmonary disease (COPD) and related conditions. Our lung experts specialize in early detection and advanced diagnostic and treatment methods for obstructive lung disorders that are difficult to manage, including:

- Asthma
- Chronic bronchitis
- Emphysema
- Chronic obstructive pulmonary disease (COPD)
- Bronchiolitis

### Advanced Diagnosis

At the University of Chicago, our lung specialists will assess your medical history and your symptoms to determine the diagnostic approach that is most appropriate for you. A full range of testing options is available on-site and in the pulmonary function testing lab.

**Pulmonary function testing:** These tests determine how well the air you breathe moves through your lungs and into your bloodstream. In the ROLD Clinic, we offer the following lung tests:

- Spirometry
- Lung volumes
- Airway resistance measurements, including methacholine challenge--an assessment of reactivity in the airway which is used to test for asthma

**Exhaled nitric oxide test:** Our specialists are among the first in the country to use this non-invasive technique routinely in the diagnosis and treatment of patients with asthma. This method is also used to test the effectiveness of asthma treatment.

**Diagnostic bronchoscopy:** In this minimally invasive technique, a physician uses a thin tube to view your lung tissue. This method also allows the physician to take a tissue sample if necessary.

### Comprehensive Evaluation and Treatment



<http://www.uchospitals.edu/specialties/pulmonary/asthma-copd/rold.html>

ABC7 Healthbeat Report: Device Could Help Emphysema Patients

Physicians in the ROLD Clinic use a multidisciplinary approach to confirm diagnoses and assess the effectiveness of treatment plans. Our lung experts collaborate with highly skilled physicians in radiology, pathology, otolaryngology (ear, nose and throat care), thoracic surgery and lung transplantation.

In addition to offering leading-edge treatment options, we aim to help patients learn how to make decisions and choose behaviors that will help them manage their diagnoses. We offer:

- Allergy testing, to help identify environmental allergen triggers
- Individualized patient education and treatment planning
- Medication and counseling to help patients overcome tobacco addiction

## ROLD Clinic Physician Team

Our physicians are highly skilled specialists with expertise in the management of complex pulmonary conditions.

### **D. Kyle Hogarth, MD**

Assistant Professor of Medicine

### **Edward T. Naureckas, MD**

Professor of Medicine

## More Information

Services Offered

Refractory Obstructive Lung Disorders Clinic

Smoking Cessation

Our Team

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## Appointments

Find a physician

Request an appointment online

Or call **1-888-824-0200**

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## Video

### **D. Kyle Hogarth, MD:**

**Bronchial Thermoplasty: new treatment available for patients with advanced, hard-to-control asthma**



[View more videos](#)

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## Related Links

Clinical Trial to Evaluate the Safety and Effectiveness of the IBV® Valve System for the Treatment of Severe Emphysema (IBV®Valve): For more information, call (773) 834-7081.

[Pediatric Asthma](#)

[Emergency Medicine](#)

[General Internal Medicine](#)

[University of Chicago Asthma and COPD Center](#)

[Section of Pulmonary and Critical Care Medicine](#)

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**Appointments:** Call UCM Connect at 1-888-824-0200

Exhibit 24



## The Link between Asthma & COPD

**(November 1, 2012)**—November celebrates World COPD Day & The Great American Smoke Out

While asthma is a leading chronic childhood disease affecting approximately 10 percent of the population nationally, chronic obstructive pulmonary disease (COPD) is a leading chronic adult disease and is currently the third leading cause of death and second leading cause of disability. Some patients can have both asthma and COPD and studies show a direct correlation between severity of asthma as a child and the incidence of COPD. Meaning that children who suffer from severe, persistent asthma are nearly 32 times more likely to develop COPD in adulthood, where children with mild asthma were not at an increased risk. Here are some examples about similarities and difference between the two diseases:

### Similarities:

Asthma and COPD are diseases of chronic inflammation of the airways that causes airflow limitation, also known as obstruction.

Shortness of breath, wheeze and cough are symptoms experienced by both asthma and COPD patients.

Viral infections and exposure to tobacco smoke, indoor air pollution, environmental pollution, and occupational pollution can all cause and asthma or COPD exacerbation.

Asthma and COPD are both diagnosed through the use of spirometry.

### Differences:

Asthma is defined as an obstruction that is reversible, where COPD is an obstruction that is irreversible.

While both asthma and COPD affect the airways, COPD is also caused by the breakdown of parenchyma tissue surrounding the airways.

The inflammation occurring in asthma and COPD are different. Asthma is primarily eosinophilic caused by allergies, where COPD is neutrophilic caused by bacteria.

Asthma and COPD respond differently to anti-inflammatory medications due to the differences in inflammation.

The goal of treatment is different for both diseases; asthma is treated to suppress chronic inflammation, where COPD is treated to reduce symptoms.

Many patients with long-standing asthma develop airway remodeling that causes a chronic irreversible airflow obstruction, or COPD. Airway remodeling occurs in patients with severe asthma that is often not well controlled. Many patients who develop COPD will need to continue to treat the inflammation caused by their asthma as well as add treatments to manage the symptoms of COPD and retain as much lung function as possible.

Celebrate World COPD Day November 14, 2012 and The Great American Smoke Out November 15, 2012 to raise awareness about the growing number of people developing COPD and to help those COPD patients quit smoking. Smoking is the leading cause of

COPD with smoking cessation cited as the best way to slow down the progression of COPD. Exposure to tobacco smoke is also a trigger for children with asthma and therefore parents who smoke should always be encouraged to quit, or at the least, not smoke around their child.

For information on the American Lung Association's Freedom From Smoking program to help your patients or loved ones quit smoking [click here](#). For information on COPD [click here](#) or call the Lung Helpline at 1-800-LUNG-USA.

*The Enhancing Asthma Care Project in Illinois is supported by Health Care Service Corporation's Healthy Kids, Healthy Families Initiative and lead by the American Lung Association in Chicago. This joint initiative aims to work with 15 clinics that serve high-risk populations to improve pediatric asthma care to an estimated 30,000 children in Illinois.*

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American Lung Association  
55 W. Wacker Drive, Suite 1150  
T: 1-800-LUNGUSA | F: 202-452-1805 | E: [webmaster@lung.org](mailto:webmaster@lung.org)



Exhibit 25

# National Library of Medicine - Medical Subject Headings

2015 MeSH

## MeSH Descriptor Data

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Standard View. [Go to Concept View](#); [Go to Expanded Concept View](#)

<b>MeSH Heading</b>	Lung Diseases, Obstructive
<b>Tree Number</b>	C08.381.495
<b>Annotation</b>	<u>PULMONARY DISEASE, CHRONIC OBSTRUCTIVE</u> and <u>AIRWAY OBSTRUCTION</u> are also available
<b>Scope Note</b>	Any disorder marked by obstruction of conducting airways of the lung. <u>AIRWAY OBSTRUCTION</u> may be acute, chronic, intermittent, or persistent.
<b>Entry Term</b>	Obstructive Lung Diseases
<b>Entry Term</b>	Obstructive Pulmonary Diseases
<b>See Also</b>	<u>Airway Obstruction</u>
<b>Allowable Qualifiers</b>	<u>BL CF CI CL CN CO DH DI DT EC EH EM EN EP ET GE HI IM ME MI MO NU PA PC PP PS PX RA RH RI RT SU TH UR US VE VI</u>
<b>Entry Version</b>	LUNG DIS OBSTRUCTIVE
<b>Previous Indexing</b>	<u>Lung Diseases</u> (1966-1970)
<b>History Note</b>	72(71)
<b>Date of Entry</b>	19990101
<b>Unique ID</b>	D008173

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## MeSH Tree Structures

### Respiratory Tract Diseases [C08]

#### Lung Diseases [C08.381]

Acute Chest Syndrome [C08.381.074]

alpha 1-Antitrypsin Deficiency [C08.381.112]

Cystic Adenomatoid Malformation of Lung, Congenital [C08.381.150]

Cystic Fibrosis [C08.381.187]

Hemoptysis [C08.381.348]

Hepatopulmonary Syndrome [C08.381.385]

Hypertension, Pulmonary [C08.381.423] +

Lung Abscess [C08.381.450]

Lung Diseases, Fungal [C08.381.472] +

Lung Diseases, Interstitial [C08.381.483] +

▶ Lung Diseases, Obstructive [C08.381.495]

Asthma [C08.381.495.108]

Bronchitis

[C08.381.495.146] +

Pulmonary Disease, Chronic Obstructive

[C08.381.495.389] +

Lung Diseases, Parasitic [C08.381.517] +

Lung Injury [C08.381.520] +

Lung Neoplasms [C08.381.540] +

Lung, Hyperlucent [C08.381.570]

Plasma Cell Granuloma, Pulmonary [C08.381.600]

Pneumonia [C08.381.677] +

Pulmonary Alveolar Proteinosis [C08.381.719]

Pulmonary Atelectasis [C08.381.730] +

[Pulmonary Edema \[C08.381.742\]](#)  
[Pulmonary Embolism \[C08.381.746\]](#) +  
[Pulmonary Eosinophilia \[C08.381.750\]](#)  
[Pulmonary Fibrosis \[C08.381.765\]](#) +  
[Pulmonary Veno-Occlusive Disease \[C08.381.780\]](#)  
[Respiratory Distress Syndrome, Adult \[C08.381.840\]](#)  
[Respiratory Distress Syndrome, Newborn \[C08.381.842\]](#) +  
[Scimitar Syndrome \[C08.381.844\]](#)  
[Solitary Pulmonary Nodule \[C08.381.884\]](#)  
[Tuberculosis, Pulmonary \[C08.381.922\]](#) +

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[Link to NLM Cataloging Classification](#)