


[Skip navigation](#)


MedlinePlus
Trusted Health Information for You

A service of the U.S. NATIONAL LIBRARY OF MEDICINE
and the NATIONAL INSTITUTES OF HEALTH

[Search MedlinePlus](#) [About MedlinePlus](#) | [Site Map](#) | [FAQs](#) | [Contact Us](#)

[Home](#) [Health Topics](#) [Drugs & Supplements](#) [Encyclopedia](#) [Dictionary](#) [News](#) [Directories](#) [Other Resources](#) [español](#)

Medical Encyclopedia

Other encyclopedia topics: [A-Ag](#) [Ah-Ap](#) [Aq-Az](#) [B-Bk](#) [Bl-Bz](#) [C-Cg](#) [Ch-Co](#) [Cp-Cz](#) [D-Di](#) [Dj-Dz](#) [E-Ep](#) [Eq-Ez](#) [F](#) [G](#) [H-Hf](#) [Hg-Hz](#) [I-In](#) [Io-Iz](#) [J](#) [K](#) [L-Ln](#) [Lo-Lz](#) [M-Mf](#) [Mg-Mz](#) [N](#) [O](#) [P-Pl](#) [Pm-Pz](#) [Q](#) [R](#) [S-Sh](#) [Si-Sp](#) [Sq-Sz](#) [T-Tn](#) [To-Tz](#)
[U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#) [0-9](#)

Aspergillosis



Contents of this page:

- [Illustrations](#)
- [Definition](#)
- [Causes, incidence, and risk factors](#)
- [Symptoms](#)
- [Signs and tests](#)
- [Treatment](#)
- [Expectations \(prognosis\)](#)
- [Complications](#)
- [Calling your health care provider](#)
- [Prevention](#)

Illustrations



[Aspergilloma](#)



[Pulmonary aspergillosis](#)



[Aspergillosis - chest X-ray](#)

Definition [Return to top](#)

Aspergillosis is an infection, a growth, or an [allergic response](#) caused by the *Aspergillus* fungus.

Causes, incidence, and risk factors [Return to top](#)

Aspergillosis is caused by a fungus (*Aspergillus*), which is commonly found growing on dead leaves, stored grain, compost piles, or in other decaying vegetation.

It causes illness in three ways: as an allergic reaction in people with [asthma](#) ([Pulmonary aspergillosis - allergic bronchopulmonary type](#)); as a colonization and growth in an old healed lung cavity from previous disease (such as [tuberculosis](#) or [lung abscess](#)) where it produces a [fungus ball](#) called [aspergilloma](#); and as an [invasive](#) infection with [pneumonia](#) that is spread to other parts of the body by the bloodstream ([Pulmonary aspergillosis - invasive type](#)).

The invasive infection can affect the eye, causing [blindness](#), and any other organ of the body, but especially the heart, lungs, brain, and kidneys. The third form occurs almost exclusively in people who are [immunosuppressed](#) because of [cancer](#), [AIDS](#), leukemia, organ transplants, high doses of corticosteroid drugs, [chemotherapy](#), or other diseases that reduce the number of normal white blood cells.

Symptoms [Return to top](#)

Symptoms of allergic aspergillosis:

- Fever
- Malaise
- Cough
- Coughing up blood or brownish mucous plugs

- [Wheezing](#)
- Weight loss
- Recurrent episodes of lung obstruction

Symptoms of invasive infection:

- Fever
- Chills
- Headaches
- Cough
- Shortness of breath
- Chest pain
- Increased sputum production, which may be bloody
- [Bone pain](#)
- [Blood in the urine](#)
- [Decreased urine output](#)
- Weight loss
- Symptoms involving specific organs
 - Brain: [meningitis](#)
 - Eye: blindness or visual impairment
 - Sinuses: [sinusitis](#)
 - Heart: [endocarditis](#)

Signs and tests [Return to top](#)

- Abnormal [chest X-ray](#) or CT scan
- Sputum stain and culture showing *Aspergillus*
- Tissue [biopsy](#) (see [bronchoscopy with transtracheal biopsy](#)) for aspergillosis
- [Aspergillus antigen skin test](#)
- [Aspergillus precipitin](#) antibody
- Elevated serum total IgE (immunoglobulin)
- Peripheral eosinophilia with allergic disease

Treatment [Return to top](#)

The goal of treatment is to control [symptomatic](#) infection. A fungus ball usually does not require treatment unless bleeding into the lung tissue is associated with the infection, then [surgical removal](#) is required.

Invasive aspergillosis is treated with several weeks of [intravenous](#) amphotericin B, an antifungal medication. Itraconazole or voriconazole can also be used.

Endocarditis caused by *Aspergillus* is treated by surgical removal of the infected heart valves and long-term amphotericin B therapy.

Allergic aspergillosis is treated with oral prednisone. Some people may benefit from [allergy](#) desensitization. Antifungal agents do not help people with allergic aspergillosis.

Expectations (prognosis) [Return to top](#)

Gradual improvement is seen in patients with allergic aspergillosis. Invasive aspergillosis may resist drug treatment and progress to death. The underlying disease and immune status of a person with invasive aspergillosis will also affect the overall prognosis.

Complications [Return to top](#)

- Amphotericin B can cause kidney impairment and severely unpleasant side effects.
- Invasive lung disease can cause massive bleeding from the lung.

Calling your health care provider [Return to top](#)

Call the health care provider if symptoms suggest this disease; if urine output becomes decreased while receiving antifungal medication; or if fever, chills, headache, or other worsening symptoms develop.

Prevention [Return to top](#)

Be cautious in the use of drugs that suppress the immune system. Prevention of AIDS prevents opportunistic diseases, including aspergillosis, that are associated with a damaged or incompetent immune system.

Update Date: 7/16/2004

Updated by: Daniel Levy, M.D., Ph.D., Infectious Diseases, Greater Baltimore Medical Center, Baltimore, MD. Review provided by VeriMed Healthcare Network.



A.D.A.M., Inc. is accredited by URAC, also known as the American Accreditation HealthCare Commission (www.urac.org). URAC's [accreditation program](#) is the first of its kind, requiring compliance with 53 standards of quality and accountability, verified by independent audit. A.D.A.M. is among the first to achieve this important distinction for online health information and services. Learn more about A.D.A.M.'s [editorial process](#). A.D.A.M. is also a founding member of Hi-Ethics (www.hiethics.com) and subscribes to the principles of the Health on the Net Foundation (www.hon.ch).

The information provided should not be used during any medical emergency or for the diagnosis or treatment of any medical condition. A licensed physician should be consulted for diagnosis and treatment of any and all medical conditions. Call 911 for all medical emergencies. Adam makes no representation or warranty regarding the accuracy, reliability, completeness, currentness, or timeliness of the content, text or graphics. Links to other sites are provided for information only -- they do not constitute endorsements of those other sites. Copyright 2005, A.D.A.M., Inc. Any duplication or distribution of the information contained herein is strictly prohibited.

[Home](#) | [Health Topics](#) | [Drug Information](#) | [Encyclopedia](#) | [Dictionary](#) | [News](#) | [Directories](#) | [Other Resources](#)

[Copyright](#) | [Privacy](#) | [Accessibility](#) | [Quality Guidelines](#)

[U.S. National Library of Medicine](#), 8600 Rockville Pike, Bethesda, MD 20894

[National Institutes of Health](#) | [Department of Health & Human Services](#)

Page last updated: 30 May 2006