



# Asthma

**A**sthma is a chronic (long-term) lung disease that inflames and narrows the airways. This makes the airways swollen and very sensitive. They tend to react strongly to certain substances that are breathed in.

When the airways react, the muscles around them tighten. This causes the airways to narrow, and less air flows to your lungs. The swelling also can worsen, making the airways even narrower. Cells in the airways may make more mucus than normal. (Mucus is a sticky, thick liquid that can further narrow your airways.)

This chain reaction can result in asthma symptoms. Symptoms may include wheezing (a whistling sound when you breathe), chest tightness, shortness of breath, and coughing. Symptoms can happen each time the airways are irritated.

Sometimes symptoms are mild and go away on their own or after minimal treatment with an asthma medicine. Other times, symptoms continue to get worse. When symptoms get more intense and/or additional symptoms occur, this is an asthma attack.

It's important to treat symptoms when you first notice them. This will help prevent the symptoms from worsening and causing a severe asthma attack. Severe asthma attacks may require emergency care, and they can cause death.

## Causes and Risk Factors

The exact cause of asthma isn't known. Researchers think a combination of factors (family genes and certain environmental exposures) interact to cause asthma. Different factors may be more likely to cause asthma in some people than in others.

Asthma affects people of all ages, but it most often starts in childhood. In the United States, more than 22 million people are known to have asthma. Nearly 6 million of these people are children.

Among children, more boys have asthma than girls. But among adults, more women have the disease than men. It's not clear whether or how gender and sex hormones play a role in causing asthma.

Most, but not all, people who have asthma have allergies.

## Living With Asthma

Asthma is a long-term disease that can't be cured. It is treated with two types of medicines: long-term control and quick-relief medicines. Long-term control medicines help reduce airway inflammation and prevent asthma symptoms. Quick-relief, or "rescue," medicines relieve asthma symptoms when they flare up.

Your initial asthma treatment will depend on how severe your disease is. Followup asthma treatment will depend on how well your asthma action plan is working to control your symptoms and prevent asthma attacks.



The goal of asthma treatment is to control the disease and prevent asthma attacks. Good asthma control will:

- Prevent chronic and troublesome symptoms, such as coughing and shortness of breath
- Reduce your need for quick-relief medicines
- Help you maintain good lung function
- Let you maintain your normal activity levels and sleep through the night
- Prevent asthma attacks that could result in your going to the emergency room or being admitted to the hospital for treatment

To reach this goal, you should actively partner with your doctor to manage the disease and create and follow an asthma action plan. An asthma action plan gives guidance on taking your medicines properly, avoiding factors that worsen your asthma, tracking your level of asthma control, responding to worsening

asthma, and seeking emergency care when needed.

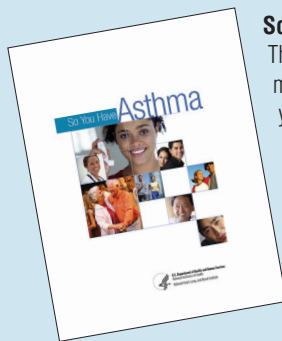
With today's knowledge and treatments, most people who have asthma are able to manage the disease. They have few, if any, symptoms and can live normal, active lives.

## Learn More

More information about asthma is available from the National Heart, Lung, and Blood Institute (NHLBI) Web site at [www.nhlbi.nih.gov](http://www.nhlbi.nih.gov) (under Health Information for the Public). Podcasts, videos, and Spanish-language articles also can be found in the online Diseases and Conditions Index at [www.nhlbi.nih.gov/health/dci](http://www.nhlbi.nih.gov/health/dci).

You also can order or download information on asthma from the NHLBI Web site or by calling the NHLBI Health Information Center at 301-592-8573 (TTY: 240-629-3255).

## Want More Information? These NHLBI publications will help you manage and control asthma!



### So You Have Asthma (#07-5248)

This guide offers tools and guidance for making asthma management a part of your everyday life. Includes a symptom diary and asthma action plan template.

### Also of interest:

- **Asthma Action Plan (#07-5251)**

Use this plan to write down how to manage your asthma—on a daily basis and during an attack.

- **Asthma and Physical Activity in the School (#05-3651)**

Provides guidance tailored for teachers and coaches on managing and controlling asthma, so that students can be active.

### My Asthma Wallet Card (#08-5245)

This handy wallet card for patients lists common warning signs of an asthma attack and what to discuss with your doctor.



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To Order: Visit [www.nhlbi.nih.gov](http://www.nhlbi.nih.gov) or <http://email.nhlbihin.net> or call 301-592-8573