

Breathe Easy

UNDERSTANDING AND CONTROLLING ASTHMA

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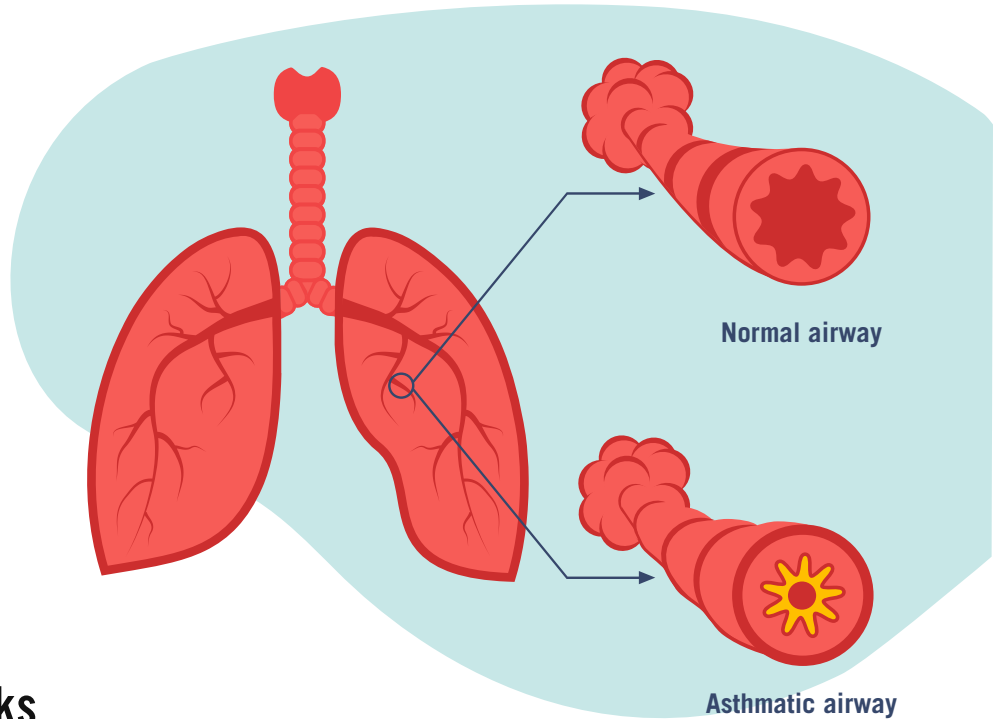


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What is asthma?

Have you felt tightness in the chest, had shortness of breath, or experienced coughing or wheezing? Asthma could be the culprit. Asthma is a lung disease that affects adults and children. It causes airways to be swollen or inflamed, making it hard for air to enter and exit the lungs. Additionally, asthma irritants increase breathing problems, swelling, and the narrowing of space for air flow, often causing asthma attacks. There is no cure for asthma—however, there are treatments to help manage the disease.



Asthma allergens and attacks

Inhaling an allergen can cause an asthma attack by provoking swelling and inflammation of the airways going to the lungs. This causes tightening of the muscles around the airways, which makes it difficult to breathe. Some people are more sensitive than others to specific allergens. It is not common, but some foods also can affect asthma. Sulfites—preservatives used in foods—can lead to an asthma attack if large quantities high-sulfite foods are eaten. Below are some common allergens that can trigger an asthma attack.

Allergens in nature:

- mold spores
- pollen
- feathers
- dust and dust mites
- pests (including cockroaches and rodents)
- pets (including fur and pet dander)
- high-sulfite foods such as:
 - ▷ dried fruits and vegetables
 - ▷ packaged potatoes
 - ▷ wine and beer
 - ▷ bottled lime and lemon juice
 - ▷ shrimp
 - ▷ pickled foods

Other allergens:

- secondhand smoke from tobacco products and e-cigarettes
- sudden temperature changes
- extreme levels of emotion, such as excitement or stress
- strenuous physical activity
- strong odors from perfumes, detergents, cleansers, candles, or other scented items
- respiratory infections or illnesses such as colds, flu, bronchitis, and sinus infections

Indoor environmental pollutants:

- asbestos
- pesticides
- lead (Pb)
- formaldehyde
- biological pollutants
- carbon monoxide (CO)
- wood smoke
- indoor particulate matter
- cook stoves and heaters
- volatile organic compounds (VOCs)

Outdoor environmental pollutants:

- ozone (O₃)
- carbon monoxide (CO)
- asbestos
- biological pollutants
- nitrogen oxides (NO_x)
- particulate matter (PM₁₀ and PM_{2.5})
- sulfur dioxide (SO₂)

Diagnosing asthma

Asthma can only be diagnosed by a physician through physical examination and breathing tests such as those listed below.

- Spirometry measures lung capacity.
- Lung volume tests measure the volume of the air in the lungs throughout the breathing process.
- Diffusing capacity is a measure of how much oxygen enters the bloodstream.
- Exercising evaluates shortness of breath during exercise.

Treatments

Asthma can be life-threatening if not properly managed. It can be controlled by taking prescribed medications and avoiding the allergens that can trigger an asthma attack. Medications may include oral, emergency (rescue) inhalers, long-acting (controller) inhalers, nebulized medications, or allergy injections. Discuss treatment options with your primary care physicians.

Create healthy living and work environments

Your home and work environments are key to managing asthma and preventing attacks. Follow the tips below to create a healthier living environment.

- Know what allergens trigger your asthma and reduce or eliminate them from your environment.
- Ensure your home and work environments are cleaned often.
- Eliminate smoke (tobacco and vaping) from inside.
- Minimize exposure to pets. If pets live indoors, wash them frequently and clean their bedding often. Prevent pets from going into bedrooms or other sleeping areas.
- Control moisture and ensure good ventilation inside your home to reduce mold and other allergens.

Establish and maintain a healthy lifestyle

- Eat healthy foods.
- Stay hydrated.
- Include physical activity in your daily routine.
- Improve your quality of sleep.
- Learn to relax and prioritize your time to reduce stress.



Asthma Facts

Over 25 million

(1 in 13) Americans have asthma. This includes 8% of adults and 7% of children.

Asthma is the **leading chronic disease** in children ages 18 and younger.

Allergic triggers occur in **80%** of children and up to **50%** of adults with asthma.

Asthma is one of the top causes of **missed school days** for children.

Asthma is a primary reason people **miss work**.

The prevalence of asthma is highest among **Native Americans** (11.6%) and **Black Americans** (9.7%).

Among teenagers with asthma, 27% were more likely to report an asthma attack when exposed to **secondhand e-cigarette vapor**.

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