

Asthma

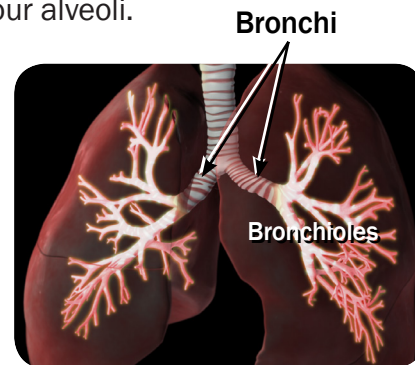
www.healthjourneysupport.com/respiratory/asthma

Asthma is a lung disease that inflames and narrows your airways.

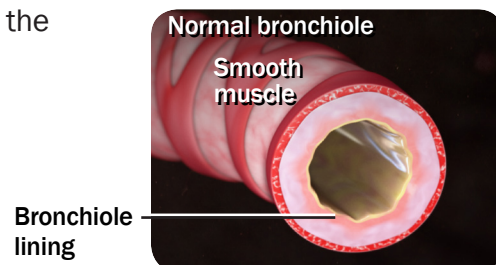
How Your Lungs Work

Normally, as you inhale, air moves freely through your trachea, or windpipe, then through large tubes called bronchi, smaller tubes called bronchioles, and finally into tiny sacs called alveoli. Small blood vessels called capillaries surround your alveoli.

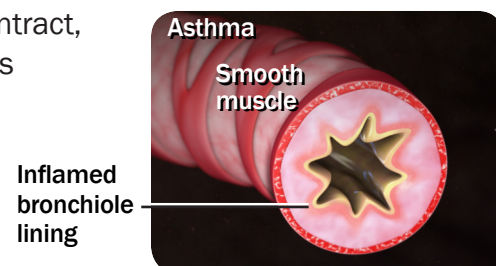
Oxygen from the air you breathe passes into your capillaries, then carbon dioxide from your body passes out of your capillaries into your alveoli so that your lungs can get rid of it when you exhale.



Your bronchioles expand when the air is warm, moist, and free of allergens and irritants.



Your bronchioles tighten, or contract, when air is cold, dry or contains allergens or irritants.



If You Have Asthma

If you have asthma, your airways are frequently inflamed and swollen. Certain triggers cause your inflamed airways to overreact, resulting in an asthma attack (bronchospasm).



Symptoms of Asthma Attack

During an asthma attack, you may experience:

- Wheezing
- Shortness of breath
- Tightness in your chest

What Happens During An Asthma Attack

When you have an asthma attack, the muscles around your airways contract and your airway walls become more swollen. Your airways may produce thick mucus that narrows the passageway for air to travel. As a result, it becomes more difficult to breathe.



Asthma Triggers

- Outdoor irritants or allergens:
 - Pollen
 - Smoke
 - Pollution
 - Cold weather
- Indoor irritants or allergens:
 - Mold
 - Pet dander
 - Dust mites
 - Cockroach droppings
- Food allergens:
 - Fish
 - Shellfish
 - Eggs
 - Peanuts
 - Soy
- Conditions or activities such as:
 - Respiratory infections
 - Stress
 - Strong emotions
 - Exercise

Living With Asthma

Asthma Medications

If you have asthma, your doctor may prescribe medications to reduce:

- Airway inflammation
- Airway muscle constriction
- Airway mucus secretion

Bronchodilators and long-acting anti-inflammatory medication are two types of asthma medication.

- Bronchodilators (inhalers and nebulizers) relax constricted airway muscles quickly and can be used during an asthma attack. This type of medication is also known as “quick-relief” or “rescue” medication.
- Long-acting anti-inflammatory medications are used to prevent asthma attacks, and must be taken every day. This type of medication reduces airway inflammation and makes your airways less sensitive to asthma triggers.



Take your medication exactly as your healthcare provider has instructed.



Lifestyle Changes

You can't prevent asthma, but you may be able to control it with a combination of medications and lifestyle changes.

- **Follow your asthma action plan.**
Work with your doctor to create a detailed strategy for taking your medications and managing attacks.
- **Identify and take steps to avoid asthma triggers.**

- **Monitor your breathing.**
Regularly measure and record lung function with a peak flow meter.
- **Treat asthma attacks early to avoid them becoming severe.**
Learn to recognize the warning signs of an asthma attack and use your medication as directed.
- **Pay attention to increasing quick-relief inhaler use.**
Relying on a quick-relief inhaler too often indicates your asthma is not under control. See your healthcare provider about adjusting your medications.
- **Keep your healthcare appointments and avoid getting sick.**
Keep all your appointments with your healthcare provider. Also, stay current with immunizations for flu and pneumonia.
- **Eat a balanced diet of nutritious foods.**
Be aware of sensitivities to certain foods, preservatives or other chemicals in the foods you eat. If you have gastroesophageal reflux disease (GERD), your asthma may worsen or your medications may need to be adjusted. Talk to your healthcare provider if you have questions about diet and asthma.
- **Get regular exercise and maintain a healthy weight.**
Exercise strengthens your heart and lungs and helps maintain your weight. Being overweight worsens asthma symptoms and puts you at a greater risk for other health problems.

When to Seek Emergency Medical Treatment

Signs of a serious asthma attack may include:

- Severe breathlessness or wheezing
- Inability to speak more than short phrases due to shortness of breath
- Straining your chest muscles to breathe
- Low peak flow readings

Avoiding Asthma Triggers

Avoiding triggers is a key part of asthma control. Here are a few tips:

Control Your Indoor Environment

- **Use an air conditioner.**

Air conditioning reduces the amount of airborne pollen in your home, lowers indoor humidity, and can reduce your exposure to dust mites. If you don't have air conditioning, keep windows closed during pollen season.

- **Minimize dust.**

Dust can worsen symptoms at night. Put pillows, mattresses and box springs in dust-proof covers. Remove carpeting. Use washable curtains and blinds. Dust or vacuum your home at least once a week. When dusting or vacuuming, wear a mask or have someone else do the cleaning.

- **Maintain optimal humidity.**

If you live in a damp climate, consider using a dehumidifier.

- **Prevent mold.**

Clean damp areas in your bathroom, kitchen, and basement.

- **Reduce pet dander.**

Avoid pets with fur or feathers. Regularly bathing and brushing your pet reduces dander in your home.

- **Get rid of/prevent cockroaches.**

Proteins from cockroach waste (droppings) are a common trigger. Store food in airtight containers. Clean dishes and spills immediately. Keep counters, sinks, and tables free of clutter.

- **Avoid secondhand smoke.**

- **Avoid strong odors.**

Use scent-free products when possible. Keep a window or door open and get some fresh air after using strong cleaning products.

Control Your Outdoor Environment

- **Monitor the Air Quality Index.**

Check the TV/internet weather report to determine the daily air quality, and plan outside activities accordingly.

- **Stay indoors on days with a high pollen count.**

Keep your windows closed to help prevent pollen from entering your home.

- **Avoid smoke from burning wood or grass.**

Also, avoid burning wood inside.

- **In cold weather, cover your nose and mouth.**

If your asthma is worsened by cold or dry air, wear a face mask.

Control Strong Emotions and Stress

- **Avoid extremes of emotion.**

Increased or rapid breathing can trigger asthma symptoms. Some examples of emotional and physical triggers include: Anger, fear, laughing, yelling, and crying.

- **Learn self-help techniques for managing stress.**

Exercise Wisely

- **Choose activities that are right for you and your symptoms.**

- **Use your asthma medications before exercising.**

Use your medications as your healthcare provider has directed, and always have the medications on hand during your workout.

The information in this handout has been created and peer reviewed by graduate-level medical illustrators, followed by reviews from medical subject experts, either physicians or PhDs on the Nucleus Medical Review Board, to ensure medical accuracy and audience level appropriateness.

The handout is intended to supplement the information you receive from your healthcare provider and should never be considered personal medical advice. Always contact your healthcare provider with health questions and concerns.

