

Asthma

Why is Asthma an emerging public health issue?

Asthma is the most costly chronic illness in the United States. It affects 17 million Americans of all ages and races. Every year 9 million work days and 10 million school days are missed due to asthmatic symptoms. In addition, asthma causes 1.8 million emergency room visits and half a million hospitalizations each year. And the incidence of asthma is growing, especially in urban areas and among pre-school aged children.

What is Asthma?

Asthma is a lung disease. People with asthma have episode of symptoms called, asthma attacks, in between symptom free periods. During an asthma attack, the airway, or bronchi, become inflamed. This inflammation makes it difficult to breathe. Asthma is a chronic illness which means it must be managed on a daily basis to keep symptoms under control. Even in its mildest form, asthma can cause decreased energy and activity levels. In severe cases it can be fatal. It is not entirely known why people get asthma. It seems to be a combination of genetic and environmental factors.

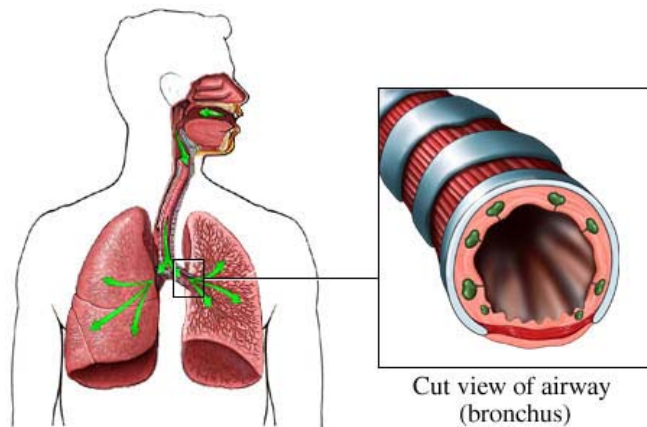


Figure 1. Asthma is a disease that affects the airway, or bronchi.

What happens during an Asthma Attack?

During an attack three things happen in the lungs.

1. The amount of mucus in the lungs increases and becomes thick and sticky.
2. The cells that line the bronchial tubes become inflamed causing the tubes to swell.
3. The muscles around the tubes contract.

All of these events cause the bronchial tubes to narrow, making breathing difficult.

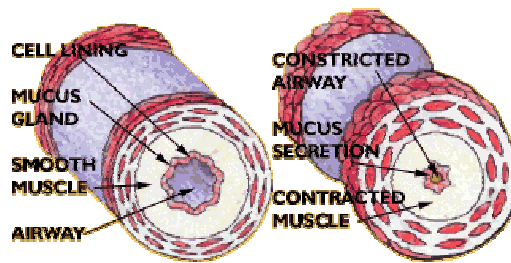


Figure 2 During an Asthma Attack the airway constricts.

Symptoms of an Asthma Attack

Early Signs:

- Wheezing or whistling when breathing
- Breathlessness
- Tightness in the chest
- Coughing

Mild and Moderate Attacks:

- Coughing up mucus
- Increases tightness in chest

Severe Attacks (if these symptoms occur, seek medical attention immediately):

- Inability to breath
- Trouble talking
- Muscles in neck tighten
- Bluish or grayish color to lips and fingernails

What causes and asthma Attack?

Asthma attacks can be caused cold air, exercise, allergies, infections or stress. Certain substances in the environment can irritate the lungs and bring on an asthma attack. These substances are called triggers. Some common triggers are:

- Perfume
- Gasoline
- Second Hand Smoke
- Dust and Mold
- Chemical and Paint Fumes

- Cockroaches
- Dust Mites
- Pets
- Pollen
- Ozone

Symptoms can occur anytime from immediately after exposure or up to 5 hours after exposure to a trigger.

How is Asthma Diagnosed?

If a person is experiencing symptoms of asthma he or she should see a doctor. The patient should be prepared to discuss specific symptoms and explain the circumstances associated the attack. This can includes any activities the patient was participating in before the attack or any exposure to irritants or allergens. An allergy test may be performed. All this information can be used to identify possible triggers and help in the management of asthma.

In addition to collecting the above information, the doctor may perform a pulmonary function test or PFT. A PFT is actually a series of tests designed to measure how efficiently the lungs are working.

For more information on Pulmonary Function Tests see The Daily Lung <http://www.dailylung.com/PFTtesting.htm> and Discovery Health at <http://health.discovery.com/diseasesandcond/encyclopedia/1353.html>

Is there a Cure for Asthma? How is Asthma treated?

Currently there is no cure for asthma. Most people who are diagnosed between the ages of 8 and 12 still have symptoms 15 years later. However, asthma can be successfully treated and managed. Asthma is considered well managed if there are no nighttime symptoms and if fast acting reliever drugs are not used more than 3 times a week. Some important factors in the management of asthma are:

1. Identifying and avoiding irritants and triggers.

Successfully identifying triggers that bring on asthma attacks is the first major step in managing asthma. A doctor can help by discussing common triggers and providing allergy tests. Also, a diary listing symptoms and activities or exposures that preceded them is helpful in identifying triggers. After the triggers are identified a patient should avoid them whenever possible. *For more information on avoiding allergy attacks see WedMD at content.health.msn.com/content/dmk/dmk_article_5461914.*

2. Using medications that reduce or prevent inflammation in the lungs.

Several medications are available to treat asthma.

- Bronchodilators help prevent or reduce the tightening of the bronchial tubes during an acute asthma attack or shortness of breath. They work within minutes.
- Beta-2 agonists are also used for quick symptom relief. They can either be inhaled or taken in tablet and liquid forms.

- Inhaled corticosteroids are used for long-term control. They help to reduce inflammation in the lungs. During periods of time when symptoms are severe, corticosteroids can be taken orally. However, oral corticosteroids taken over long periods of time can have serious side effects.

For more information on asthma medications and side effect see The American Lung Association <http://www.lungusa.org/asthma/astameds2.html> and Discovery Health <http://health.discovery.com/diseasesandcond/encyclopedia/757.html>

3. Knowing the symptoms of asthma

Finally, a patient must be aware of his or her asthma symptoms. Most importantly she must recognize the signs of a worsening attack so that she may seek medical attention when necessary.

Information and Support Resources

- [The American Lung Association Asthma Page](#)
- [Asthma and Allergy Foundation of America](#)
- [American Academy of Allergy, Asthma and Immunology](#)

Internet Resources

- [The American Lung Association Asthma Page](#)
- [Asthma and Allergy Foundation of America](#)
- [American Academy of Allergy, Asthma and Immunology](#)
- [Buteyko Asthma Management](#)
- [The Daily Lung](#)
- [Discovery Health Medical Tests](#)