



Pediatric Clinic  
ASTHMA EDUCATION HANDOUTS

## ASTHMA BASICS

### What is Asthma?

Asthma is a chronic lung disease that lasts a long time. It cannot be cured but it can be controlled.

- Airways are inflamed. That is, airway linings are swollen.
- Airways narrow and breathing becomes difficult. This narrowing gets better (but not all the way in some patients), sometimes by itself, sometimes with treatment.
- Airways are supersensitive (hyperresponsive). They react to a variety of stimuli--or triggers--including physical changes (cold air and exercise), allergens (animal dander, dust mites, and molds), and irritants (smoke, strong odors, and sprays). Coughing, wheezing, or difficult breathing--asthma "attacks" or episodes--may result.

### What Causes Asthma?

Physicians don't yet know the basic cause of asthma or why one person gets asthma and another doesn't. They do know that heredity plays some role; asthma often runs in families, especially in families who have a lot of allergies. It is known that asthma is not caused by emotional factors such as a troubled parent-child relationship, although emotions may affect preexisting asthma. Although the exact cause of asthma remains a mystery, the processes that produce asthma symptoms are becoming increasingly well-understood. Essentially, airways of people with asthma become narrow and supersensitive to triggers.

### What Are the Symptoms of Asthma?

The main symptoms of asthma are:

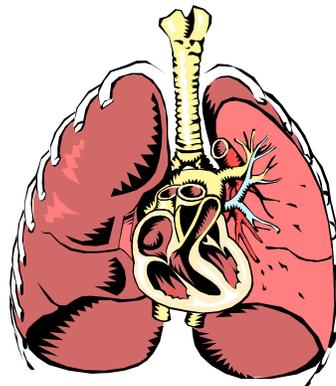
- Shortness of breath
- Wheezing
- Tightness in the chest
- Cough lasting more than a week

Not all people with asthma will experience every one of these symptoms. For some, coughing may be the only symptom of asthma. Coughing often occurs during the night or after exercise.

It's important to know that treatment can reverse and even prevent asthma symptoms. And it's important to treat even mild symptoms of asthma so that you can keep the symptoms from getting worse.

### What Is Normal Breathing?

When you breathe in, air is taken in through your nose and mouth. It goes down your windpipe, through your airways, and into the air sacs inside your lungs. From your airway sacs, oxygen is absorbed into the blood and distributed throughout your body. When you breathe out, stale air leaves the lungs in the reverse order.



## What Happens During an Episode of Asthma?

Asthma affects the airways in your lungs. During an episode of asthma:

- The lining of the airways becomes inflamed.
- The airways produce a more and thicker mucus.
- The muscles around the airways tighten and make the airways narrower.

These changes in the airways block the flow of air, making it hard to breathe.

You need to know the ways that asthma affects the airways so you can understand why it often takes more than one medication to treat the disease. Very simply, some medications relax the airways and others reduce (and even prevent) the inflammation and production of mucus.

