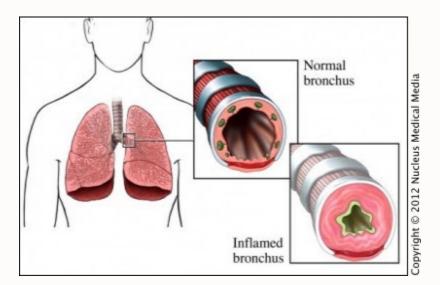
# **Asthma**

# Overview

#### What is asthma?

Asthma is a disease of the lungs. The airways of people who have asthma are extra sensitive to the things they're allergic to (called allergens) and to other irritating things in the air (called irritants).

Asthma symptoms start when allergens or other irritants cause the lining of the airways to become inflamed (swollen) and narrow. The muscles around the airways can then spasm (contract rapidly), causing the airways to narrow even more. When the lining of the airways is inflamed, it produces more mucus. The mucus clogs the airways and further blocks the flow of air. This is called an "asthma attack."



# **Symptoms**

#### What is an asthma attack?

An asthma attack occurs when excess mucus causes your air tubes to swell and tighten. Asthma attacks can be mild, moderate or severe. Symptoms of an asthma attack include the following:

- Coughing
- Feeling breathless
- Tightness in the chest
- Wheezing (breathing that makes a hoarse, squeaky, musical or whistling sound)
  - Cough with mucus
  - Wheezing or whistling sound when breathing

- Difficulty breathing and talking
  - Trouble sleeping

### Signs of an emergency

Call your doctor or seek emergency care right away if you experience any of the following symptoms:

- Your rescue medicine doesn't relieve your symptoms.
- Your peak flow keeps dropping after treatment or falls below 50% of your best.
  - Your fingernails or lips turn gray or blue.
    - You have trouble walking or talking.
  - You have extreme difficulty breathing.
  - Your neck, chest or ribs are pulled in with each breath.
    - Your nostrils flare when you breathe.
    - Your heartbeat or pulse is very fast

#### How can I tell if an asthma attack is serious?

You should use (or have your child use) a peak flow meter every day. A peak flow meter measures how much air flows out of your lungs. People who have asthma have lower air flow in and out of their lungs than other people. Measuring peak flow levels can help you see problems with your air flow before you have any symptoms of asthma.

A meter can also help tell you and your doctor how serious your asthma attacks are. You'll be able to see when you should take medicine or when you need emergency care. Peak flow readings may also help you find the triggers that make your asthma symptoms worse.

# How can I tell if my asthma is getting worse?

Signs that your asthma is getting worse include having symptoms at night, a drop in your peak flow and the need to use your rescue medicine more often. Talk to your doctor if you think that your asthma is getting worse.

# Causes & Risk Factors

### What causes asthma symptoms?

Your asthma can flare up for many different reasons. Allergies can make your asthma symptoms get worse. Viral infections (such as a cold), tobacco, pollutants (such as wood smoke), cold air, exercise, fumes from chemicals or perfume, sinus infections and heartburn can all cause a flare-up. For some people, strong emotions or stress can trigger an asthma attack. Pay attention to the way these things affect your asthma. If you and your doctor figure out which things bother your asthma, you can start trying to address them.

# **Treatment**

### How do I control my asthma symptoms?

Treatment of your symptoms involves avoiding things that cause asthma attacks, keeping track of your symptoms and taking medicine.

#### What medicines are used to treat asthma?

Asthma medicines can generally be divided into two groups: medicines to prevent attacks (controller medicines) and medicines to treat attacks (sometimes called rescue medicines). Your doctor will talk to you about these medicines and what to do if you have an asthma attack. Ask your doctor for written instructions about how to take your medicines. Your doctor may have a form to give you, or you can print out this one.

#### **Controller and Quick-Relief Medicines**

The following are some of the prescription medicines most commonly used by people who have asthma:

#### **Controller Medicines**

- Inhaled corticosteroids
  - Cromolyn
  - Nedocromil
  - Anti-leukotrienes
    - Theophylline
- Salmeterol (inhaled long-acting beta2 agonist)

#### **Quick-Relief Medicines**

- Albuterol, pirbuterol, levalbuterol or bitolterol (inhaled short-acting beta2 agonist)
  - Ipratropium (anticholinergic)
  - Prednisone, prednisolone (oral steroids)

#### How do controller medicines work?

Controller medicines help reduce the swelling in your airways to prevent asthma attacks. Controller medicines must be taken on a regular basis--whether or not you're having symptoms. They take hours or days to start to help and don't work well unless you take them regularly.

#### How do rescue medicines work?

Rescue medicines (also called quick-acting or quick-relief medicines) provide quick relief during an asthma attack by helping the muscles around your airways relax, which allows your airways to open. If you feel like you're having an asthma attack, follow your doctor's instructions for taking this medicine right away.

#### Primatene Mist Inhaler to be discontinued

Primatene Mist Inhaler, an over-the-counter asthma inhaler, will no longer be available after December 31, 2011. If you currently use Primatene Mist Inhaler, it's safe to continue using it as long as it hasn't expired. Talk to your doctor about switching to a different medicine to treat your asthma. For more information, visit the U.S. Food and Drug Administration website.

### Warning signs of an asthma attack

- Coughing or wheezing
  - Shortness of breath
  - Tightness in chest

If your symptoms don't respond to medicine or if your peak flow drops below 50% of your personal best, call your doctor or go directly to the nearest emergency room (by ambulance, if necessary).

# Prevention

### Is there anything I can do to help avoid asthma attacks?

You can help avoid asthma attacks by avoiding the triggers (also called allergens) and irritants that can start an asthma attack. Triggers and irritants vary for each individual, but the following are some examples of common triggers and irritants:

- Air pollution
  - Dust
  - Mold
  - Pollen
- Tobacco smoke
  - Pet dander
  - Exercise
- Changes in temperature
  - Certain foods
- Sulfite (food preservative in red wine, beer, salad bars, dehydrated soups, and other foods)
  - Aspirin, or ibuprofen (brand names: Advil, Motrin, Nuprin)
    - Heartburn
    - Sinus infections
    - Strong emotions (such as crying or laughing)
      - Perfume
      - Spray-on deodorants
        - Viruses

### How do I avoid common asthma triggers?

If pollen and mold cause your symptoms, use your air conditioner and try to keep the windows of your home and car closed. Change the filter on your heating and cooling system frequently.

To keep mold down, clean and air out bathrooms, kitchens and basements often. Use an air conditioner or dehumidifier to keep the level of humidity less than 50%.

People who are allergic to dust are actually allergic to the droppings of dust mites. To reduce dust mites in your home, wash bed sheets weekly in hot water (above 130°F). Cover mattresses and pillows in airtight covers, and remove carpets and drapes. If you must have carpet, you can treat it with chemicals to help reduce dust mites. Try to avoid stuffed animals, dried flowers and other things that trap dust.

Pets can cause problems if you are allergic to them. If you have a pet, keep it out of your bedroom.

Don't allow smoking in your house or car. Tobacco smoke can make asthma worse.

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