

# Allergy and Asthma CENTER OF MINNESOTA

## **Asthma**

### **What is Asthma?**

Asthma is a chronic condition that can present at any age. It is more common in those with environmental allergies. The underlying problem can often be attributed to one or all of the following abnormal reactions in the lung airways: increased tightening of the muscles, inflammation, or increased mucus production.

Asthma symptoms affect an estimated 26 million Americans and are one of the leading causes of work and school absences. The cost in direct medical care and indirect expenses totals more than \$16.1 billion each year. Although the exact cause of asthma remains unknown, many treatment options are available to control and reverse this chronic inflammation of the lungs' airways. Although no cure exists for asthma, effective treatments are available. We learn more about asthma every year and newer, more effective drugs are being developed. As a result, most people with asthma live normal, productive lives. Research is continuing, and the outlook is bright.

The most common asthma symptoms are:

- Coughing, especially at night, with exercise, or when laughing
- Trouble breathing
- A tight feeling in the chest
- Wheezing – a squeaky or whistling sound

Sometimes a cough that won't go away is the only symptom of asthma. Asthma symptoms often happen at night and in the morning, but they can happen any time. They get worse when you are around your asthma triggers.

### **Is Asthma Life-Threatening?**

In severe and poorly controlled cases, asthma can be life-threatening, and the death rate and prevalence of asthma has increased significantly since the late 1970s. Deaths occur more frequently in adults. If there is a single factor leading to severe or fatal asthma attacks, it appears to be a delay in administering appropriate drug therapy.

Working in partnership with an allergist, having an action plan, recognizing the triggers and early warning signals of an impending attack, and using a peak flow meter to detect the degree of bronchial obstruction, can all contribute to a decrease in the frequency and severity of attacks.

## **Asthma Treatment Options**

Prevention is always the best strategy. A person with asthma should know what situations prompt an attack, such as exposure to allergens, respiratory infections and cold weather, and to avoid these situations whenever possible. If asthma attacks are severe, unpredictable or flare up more than twice a week, then asthma treatment with a long-term control medication is recommended. Long-term medications are preventive, taken daily and can achieve and maintain control of asthma symptoms.

Because inflammation of the lungs and airways plays a critical role in asthma, the most effective medications for long-term control have anti-inflammatory effects. Various forms of anti-inflammatory medication are available and should be discussed with a physician.

One of the most effective anti-inflammatory medications for controlling asthma is inhaled corticosteroids. Taken early and as directed, these medications can improve asthma control, normalize lung function, and possibly prevent irreversible injury to lung airways. Often a single dose taken daily is enough to control asthma. Other anti-inflammatory medications include cromolyn and nedocromil.

Other medications for long-term control of asthma are long-acting inhaled or oral bronchodilators (beta agonists), long-acting theophylline or regular use of oral corticosteroids. Combination therapy (inhaled corticosteroid plus a long-acting beta2-agonist) is the preferred treatment for asthma when inhaled corticosteroids alone do not control the disease.

Unless directed by a physician, asthma patients should never change or discontinue preventive medications, and should always keep an adequate supply available.

For people with allergic asthma, immunotherapy (allergy vaccinations) may offer relief from symptoms prompted by allergens that act as triggers and cannot be avoided. Immunotherapy increases a patient's tolerance to the allergens that prompt asthma symptoms. A recent treatment option called anti-IgE stops an allergic reaction before it begins, helping prevent asthma attacks by blocking the antibody that causes the reaction. The treatment is approved for patients age 12 and older who have moderate-to-severe allergic asthma.

## **How Can I Prevent and Treat Symptoms of Exercise-Induced Bronchoconstriction?**

Working together we can create an asthma action plan. You and your allergist can try to find out what causes your asthma symptoms, like high pollen counts or air pollution when you exercise. Then you can try to avoid these things.

- Warm up with gentle exercises for about 15 minutes before you start more intense exercise.
- Cover your mouth and nose with a scarf or face mask when you exercise in cold weather.
- Try to breathe through your nose while you exercise. That helps warm the air that goes into your lungs.

Take medicine to prevent and treat this kind of asthma.

## **Is There a Cure for Asthma?**

Although asthma symptoms are controllable, a cure for asthma has remained elusive. Preventive treatment, however, should minimize the difficulty an individual experiences with asthma, and allow a normal, active lifestyle.

For More information please visit: <http://www.acaai.org/allergist/asthma>