



Exercised Induced Asthma

If you have cough, wheezing, trouble breathing or chest tightness when you exercise, you may be one of many people with exercise induced asthma (EIA). Asthma is seen in approximately seven percent of the population in the United States, which means that about 20 million Americans suffer with this chronic lung condition. Strenuous physical exertion can be a major trigger in most of these individuals. In addition, as many as 40% of patients with allergic rhinitis experience asthma symptoms associated with exercise.

Symptoms of EIA include **difficulty breathing, wheezing, chest tightness/pain, and coughing within 5-20 minutes after starting exercise**. This is because airways are overly sensitive to sudden changes in temperature and humidity, especially when breathing colder, drier air. During strenuous physical activity, people tend to breathe through their mouths, allowing the cold, dry air to reach the lower airways without the warming, humidifying effects of the nose. In addition to mouth-breathing, air pollutants, high pollen counts and upper respiratory tract infections can also increase the severity of EIA.

EIA is diagnosed by history and measuring lung function before and after exertion. New tests done in pulmonary function testing lab under a monitored setting may eliminate the need for exercise.

Monitor your asthma while you exercise by watching for asthma symptoms. A peak flow meter can also be useful in monitoring your asthma. A peak flow meter is a portable, hand held device that measures how fast you blow air out. When the airways are narrowed by asthma, the peak flow numbers will drop. A significant drop in your peak flow number and/or asthma symptoms is a signal that you need extra medicine or maybe a short rest during exercise. Ask your allergist about a written Asthma Action Plan. It will help you know what to do if you are getting worse while you exercise.

A peak flow meter can be an objective way to make decisions about participation in sports, gym class, recess or other activities. In many situations, physical education teachers, coaches and employers may be confused about asthma and exercise and physical activity. Some may prohibit people from participation while others may push those with asthma to keep up with their peers without proper monitoring or treatment. A peak flow meter combined with monitoring asthma symptoms can help take the confusion out of this situation.

Although the type and duration of **recommended activities** vary with each individual, some activities are better tolerated by people with EIA. These include **swimming** (because of warm, humid atmosphere, toning of upper body muscles and the way horizontal position may help immobilize mucus from the bottom of the lungs), **walking, leisure biking** and free **downhill skiing**. In cold weather, **covering the mouth and nose** can decrease symptoms by warming inhaled air. **Team sports** that require **short bursts of energy (baseball, football, wrestling, gymnastics and shorter track and field events)** are less likely to trigger EIA as **opposed to sports requiring continuous activity such as soccer, basketball, field hockey and long distance running**. However, with proper training and medical treatment, many asthmatics are able to excel as runners or even basketball players.

Treatment and other recommendations:

- Use a **short acting** bronchodilator such as **albuterol** (Proair, Proventil, Ventolin), **levo-albuterol** (Xopenex) or **pirbuterol** (Maxair) **15 minutes before exercise**. These are effective in 80-90% of patients with EIA, have rapid onset of action and last for up to 4-6 hours. These medications can also be used as rescue inhalers if symptoms occur.

- **Long acting** bronchodilators, such as **formoterol** (Foradil) or **salmeterol** (Serevent), may be used before school allowing children to participate in sports during and after school without the need for short acting inhalers. The effects of these long acting medications can last up to 12 hours.
- **Maintenance** medications, such as inhaled steroids, may be needed if symptoms are not well controlled with short or long acting bronchodilators.
- **Warm-up** period of activity before and **warm-down** activity after exercise may lessen symptoms of EIA.
- **Restrict activity** if you have a viral infections, when outdoor temperatures are extremely low, when pollen count are high (in patients with seasonal allergies) or when air pollution levels are high (ozone alerts).
- **Pursed lip breathing** may help reduce airway obstruction.

If you have questions about Exercise Induced Asthma, feel free to contact our office. One of our staff would be happy to answer your questions about EIA and treatment options offered at Allergy & Asthma Clinics of Ohio.