

Exercise-induced Asthma

The trachea is the main breathing tube or airway, which branches into smaller breathing tubes called bronchi that deliver air in and out of the lungs. Exercise-induced asthma is a condition in which strong physical activity triggers tightening of the small breathing tubes making it difficult for air to be released from the lungs.

Exercise-induced asthma is often diagnosed in children because of their high level of activity, but it can happen at any age. The cause of exercise-induced asthma is not fully understood. One theory is that faster breathing with exercise makes it difficult for the breathing tubes to keep enough moisture and heat inside. This aggravates the lining of the airways and causes tightening. Cold and dry conditions tend to make symptoms worse.

Exercise-induced asthma is thought to happen in 5 to 20 percent of the general population. Individuals with asthma are at higher risk for exercise-induced asthma. In competitive athletes, symptoms tend to occur more with winter and summer endurance sports. Some sports such as swimming and ice skating may expose the athlete to chemicals, which can also trigger symptoms.

Symptoms

Symptoms of asthma include:

- Coughing, wheezing, chest tightness
- Shortness of breath
- Poor performance, feeling tired or feeling out of shape even if fit

Symptoms generally occur within five to 30 minutes of intense exercise any may get better after 30 minutes. Symptoms tend to be worse with more intense activity.

Diagnosis

The diagnosis is made with a full history and a physical exam. Lung-function testing may be done to help make the diagnosis. This type of testing involves measuring the athlete's ability to blow air out of the lungs before and after taking a medication to help relax the breathing tubes. The person performing the test may ask that some exercise be performed to bring on the symptoms.

Treatment

The best way to treat exercise-induced asthma in athletes is by preventing the onset of symptoms with medications and proper warm-up. Athletes should warm up for 15 to 20 minutes prior to play with stretching and calisthenics to reach 50 to 60 percent of maximum heart rate. An inhaled medicine, such as Albuterol, can be used before exercising to help open up the airways and prevent them from closing. Wearing a mask during cold weather may decrease symptoms. Athletes who notice specific factors that aggravate asthma (such as recently mowed grass) should avoid these triggers.