

## EXERCISE-INDUCED ASTHMA IN THE ATHLETE

Exercise-induced asthma refers to the transient increase in airway resistance that can be triggered by exercise. It can be precisely defined in a formal testing procedure done by an allergist where breathing tests are performed before and after vigorous exercise where a particular heart rate is achieved. A drop in the flow of air through the lungs can be documented in patients with exercise-induced asthma. Some patients have symptoms that occur immediately after the onset of exercise while for others it takes several hours. It has been estimated that up to 50% of patients with allergic rhinitis symptoms have exercise asthma as well. The symptoms may include tightness in the chest, wheezing, or cough.

There is no consensus about the mechanism of exercise-induced asthma: however, the most plausible explanation includes an airway water loss that occurs with hyperventilation. This environment results in release of local inflammatory chemicals in the airway causing constriction of the muscle in the airway. There are several ways to treat this disorder. The American College of Allergy goes over some of the symptoms and treatments at [www.acaai.org](http://www.acaai.org). The goal of therapy is to have all patients perform exercises to their ability without reservation. No one should be limited by exercise-induced asthma.

Many athletes notice a 3-4 hour refractory period (no significant asthma symptoms) when they begin their warm-up with a brief, moderately intense initial run. (Example: 80% max effort for 200-300 yards/meters.) This technique is worth a try.

The NCAA and the United States Olympic Committee have different medications which they allow during competition. The United States Olympic Committee in the past has allowed certain inhalers including Proventil, Ventolin, inhaled steroids, and Intal. Alupent, Serevent, and Maxair were banned by the USOC. Conversely, the NCAA had allowed all of these medications to be used under the direction of a physician. Check websites for updated medicine-use details.

The United States Olympic Committee also banned any medication that has a decongestant including many over-the-counter preparation with pseudoephedrine (Chlor-Trimeton) Benedryl decongestant, Seldane D, Tavist D, Actifed, Sudafed, Dimetapp, Dristan nasal spray, Tylenol Cold, Advil cold and sinus, Alkaseltzer Plus, etc.) Antihistamines have been allowed in the past.