National Athletic Trainers' Association®

Health Care for Life & Sport

Asthma in Athletes

Taken From:

National Athletic Trainers' Association Position Statement: Management of Asthma in Athletes

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Asthma

- A chronic inflammatory disorder of the airways characterized by variable airway obstruction.
- Can lead to recurrent episodes of wheezing, breathlessness, chest tightness, and coughing; particularly at night or early morning.
- Airflow limitations are often reversible, but as asthma symptoms continue, patients may develop "airway remodeling" that leads to chronic irreversible airway obstruction.
- Severe attacks of asthma can also cause irreversible airflow obstruction that can lead to death.

Asthma Triggers

- Asthma can be triggered by many stimuli, including:
  - Allergens (pollen, dust mites, animal dander)
  - Pollutants (carbon dioxide, smoke, ozone)
  - Respiratory Infections
  - Aspirin
  - NSAIDS
  - Inhaled Irritants (cigarette smoke, household cleaning fumes, chlorine)
  - Particulate Exposure (ambient air pollutants)
  - Exposure to Cold
  - Exposure to Exercise

Asthma Considerations

- All athletes with asthma should have a rescue inhaler available during games and practices.
- Athletic trainers should also have an extra rescue inhaler for each athlete to administer during emergencies.
- Athletes with asthma should have asthma management examinations at regular intervals, as determined by the PCP or specialist; to monitor and possibly alter therapy.
- Proper warm-up before exercise may lead to a refractory period of as long as 2 hours, which may results in decreased reliance on medications by some athletes with asthma.

Exercise Induced Asthma (EIA)

- A temporary narrowing of the airways induced by exercise in which the patient has asthma symptoms.
- EIA is commonly seen in athletes in all levels of athletic competition.
- EIA can occur in patients who do not otherwise have asthma.
- EIA can be a significant disability for an athlete. This is especially true in regards to endurance athletes.
- EIA is believed to be present in 12-15% of the general populations and as high as 23% in athletes.
  - Can be more common in urban environments than in rural areas.

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National Asthma Education and Prevention Program II
Treatment of Exercise Induced Asthma

- One goal of management is to enable patients to participate in any activity they choose without experiencing asthma symptoms. EIB should not limit either participation or success in vigorous activities
- Recommended Treatments for EIB include:
  - $Beta_2$-agonists will limit EIB in more than 80 percent of patients. Short acting inhaled beta2-agonists used shortly before exercise (or as close to exercise as possible) may be helpful for 2 to 3 hours. Other medications may be considered as well. Contact your asthma specialist.
  - A lengthy warm-up period before exercise may benefit patients who can tolerate continuous exercise with minimal symptoms. The warm-up may preclude a need for repeated medications.

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Institutional Policies on Asthma Management

- Insert specific institutional policy on identification and specific asthma management methods (include medication use recommendations) and information for coaches

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Resources

Management of Asthma in Athletes

http://www.nata.org/sites/default/files/MgmtOfAsthmaInAthletes.pdf

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