



Asthma

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What is it?

Asthma is a common medical condition that causes the airways in your lungs to narrow, making it more difficult for you to get air in and out of your lungs. This can lead to difficulty breathing, wheezing, chest tightness or pain, and coughing. Severe asthma attacks can even result in death so this condition must be taken seriously.

Causes

No one knows for certain what causes asthma, but it is thought to be related to genetics, so it runs in families. What we do know is that it is made worse by a variety of irritants known as "triggers." The particular trigger that causes breathing problems can differ from person to person. Some common triggers are:

Colds	Mold
Dust Mites	Cigarette smoke
Pollen	Pollution
Cockroaches	Foods
The flu	Chemicals
Animal Dander (fur, skin, saliva)	Cold Air

For an asthmatic person, exposure to one of these triggers may irritate the lungs, setting off a reaction. The airway lining swells and starts to produce more mucus. This causes the passages to shrink to less than half their normal size, making it difficult to breathe (think about trying to breathe through a soda straw).

Exercise-Induced Asthma

There is another form of asthma called "Exercise-Induced Asthma" that is very important for athletes to be aware of. In this type of asthma, symptoms are triggered by physical activity. An affected athlete will often develop chest tightness, cough and shortness of breath after about 10-15 minutes of activity. These symptoms then last anywhere from 30-60 minutes after stopping play. This differs from the simple shortness of breath related to fatigue, which usually improves almost immediately with rest. EIA is worsened by cold, dry air as well as any of the other triggers that provoke a player's asthma. Soccer players frequently struggle with EIA due to the intense physical demands of the sport along with exposure to grasses, pollens and cold temperatures outdoors.

Management

Fortunately, asthma is a problem that can be managed quite effectively. The first step is to be evaluated by your doctor prior to play and follow-up frequently to make sure that your breathing problems are well-controlled. The most commonly used medicine to treat asthma is an

immediate acting bronchodilator “rescue” inhaler like albuterol. This serves to open up the airways during an attack and, in the case of EIA, can be taken before activity to help prevent attacks. Your doctor should make sure that you know how to use your inhaler correctly and may recommend a “spacer” attachment that helps make sure the medication makes it down into the lungs where it is needed. There are a number of other medications, often called “controller” meds, that can be utilized depending on the frequency of the athlete's symptoms.

In addition to medicines, some helpful hints to manage asthma include:

- 1) Identifying and avoiding triggers.
- 2) A half-hour before a practice or game, perform a vigorous 10-15 minute warm-up, then rest for 10-15 minutes. This can induce a “refractory period” during which airway narrowing is unlikely to be severe or even happen at all.
- 3) Breathe through your nose (warms and humidifies the air) during exercise in cold weather.
- 4) Breathe through a scarf or other facial cover.

Being diagnosed with asthma does not preclude someone from sports participation. In fact, with proper treatment and patient education, exercise should be encouraged as it strengthens the cardiovascular system and may help decrease sensitivity to asthma triggers. However, some important precautions need to be taken. The player should have multiple albuterol inhalers, which should be kept in separate locations. One should be kept by the player so it is easily accessible on the sidelines (a shoe bag is a good spot). The coach or medical staff should have another one in the first aid kit as a back-up. Check inhalers periodically to make sure that they are not empty or out of date. Talk to your physician about an “action plan.” This plan can provide guidance about how to use medications, when it is ok to exercise or when to seek immediate medical help based on symptoms and peak flow readings. See the article on Condition-Specific Considerations When Developing an Emergency Action Plan for additional information.

Finally, if medications just don't seem to relieve the wheezing you get with exercise, a doctor may consider the alternative problem of “vocal cord dysfunction.” In some people, the vocal cords close together rather than opening during physical exertion, temporarily narrowing the windpipe. Symptoms of wheezing heard in the throat rather than the lungs or trouble getting air in rather than out may be enough for your doctor to make the diagnosis. It can be confirmed by specific patterns on a pulmonary function test or better yet by watching the vocal cords with special equipment. Fortunately, simple speech therapy exercises can train the vocal cords to function properly during exercise.

Hopefully this summary will help you to better understand your asthma and how to safely play soccer with it. For more information check out the Asthma and Allergy Foundation of America's website: <http://www.aafa.org/index.cfm>

References:

Netter's Sports Medicine
UpToDate - Asthma