

Athletes With Asthma: Warm Weather Strategies

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Asthma is a lung condition that affects an estimated 8.9 million children under the age of 18. It occurs when the small airways of the lungs spasm or tighten, leading to wheezing, coughing, shortness of breath and chest tightness. Exercise-induced asthma is a form of asthma that some people have during or after physical activity.

Experiencing asthma symptoms during soccer practice or a game can be scary for players, his or her parent and the coach. Here are some tips to managing asthma during summertime practices and tournaments.

Managing Asthma Triggers

The best way to manage airway tightening or an “asthma attack” is through prevention. Such non-medication techniques as managing asthma triggers, performing a proper warm-up before a game or practice, pursed-lip breathing and staying hydrated can help to prevent asthma symptoms. A trigger is anything that can lead to airway tightening.

Players with asthma should be aware of what triggers his or her asthma and make every effort to avoid the trigger(s). Common triggers include:

- physical activity, usually when breathing is hard or fast – like that necessary for racing up and down a soccer field
- very high or very low humidity
- air pollution, such as exhaust fumes from a nearby street or highway
- allergens in the air, such as grass and weed pollen, mold and furry animals
- a cold or infection

Sudden, increased breathing can lead to airway tightening, so a proper warm-up is key. What’s a proper warm-up? While everyone is different, a general rule of thumb is to warm-up about for about 10 minutes at a very low level – light jogging, jumping jacks or biking will work. Use a peak flow meter at five and 10 minutes, and the peak flow should increase. After warming up, players should keep moving, even while on the sidelines.

Staying hydrated is important for all players but especially those with asthma. Airway drying and cooling, which occurs with sudden or heavy breathing, can lead to airway tightening. Staying well-hydrated two to three days prior to a tournament as well as throughout a game can help players to manage asthma symptoms.

Players with asthma often require medication to help them manage the condition and can include an inhaler. A customized medication plan designed and monitored for the athlete by a doctor can help to control asthma. A respiratory therapist can teach athletes what to do when airways constrict.

Managing Airway Tightness When It Occurs

Despite best efforts, most players will experience airway tightening at some point. What are some ways to manage the inevitable?

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Know your body: Track your normal peak flow rates over a period of time to better understand your body. Use a simple hand-held peak flow meter daily over a two-week period to measure and graph airflow. When peak flow drops 25 percent from your normal, the airway is considered to be in “a tightening mode.” Players can often “feel” this and report symptoms that include shortness of breath, wheezing, cough, and chest pain or tightness.

Recognize symptoms: Recognizing symptoms will help players to better manage tightening when it occurs. When peak flow drops 25 percent from normal, use a “rescue” inhaler, or Albuterol. While many athletes experience relief, nearly 50 percent will not. Because the airway can be very stubborn or slow to respond, a preventive medication such as a corticosteroid or “Cromolyn” may be more helpful, but requires several weeks of use to be effective.

Manage breathing and try to relax: When airway tightening occurs and isn’t responsive to a rescue inhaler, players can try to perform pursed-lip breathing to help slow breathing down: inhale through the nose for one second and exhale through pursed lips for four seconds. Muscle relaxation exercises can also be effective. Voluntarily tighten neck, shoulder and chest muscles intensely for five seconds, then release. Alternate between the two for several minutes. During this time, perform a peak flow measure. If there is a 25 percent drop from normal, take two puffs from the rescue inhaler. If the airway tightening is accompanied by coughing, try to suppress the coughing as much as possible; continued coughing can increase tightening. Peak flow should be measured after 10 minutes to determine if the rescue inhaler opened the airway. Game participation should be halted if there is no improvement.

Airway Tightening on the Field: the Role of Coaches, Parents, Health Care Providers

Coaches, parents and health care providers have an important role to play in helping players manage their asthma. Communication between the three is important to the safety of the athlete, particularly of those who are younger and may not understand the seriousness of the condition.

Coaches should know about players who have asthma. Often, airway tightening can be misinterpreted as de-conditioning and coaches may spur players to higher exercise intensities, which can lead to a “serious status asthmaticus” situation. Although it is rare, each year there are reports of athletes who have died because his or her asthma symptoms were not properly recognized.

This information is produced by Athletes with Asthma, a Fairview Southdale Hospital program dedicated to improving the performance of athletes with asthma. Athletes with Asthma is an affiliated service of Minnesota Sports Medicine, the official provider of medical services to the MYSA. For more information, call Minnesota Sports Medicine at 612-273-4800 or visit www.mnsportsmed.org.