

Sports Shorts

GUIDELINES FOR PARENTS

Heat Illness in Athletes

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INTRODUCTION

Heat illness is comprised of a spectrum of conditions that range from mild (heat edema, heat rash) to life-threatening (heat stroke). Deaths from sports-related heat stroke appear to be on the rise in the United States, with football players being at greatest risk. Kids may be more vulnerable to heat illness for many reasons. Kids absorb relatively more heat from the environment under hot and sunny conditions. They also produce more heat than adults and sweat less. Finally, it takes kids longer to get used to the heat and their body temperatures have to be higher to trigger sweating. Because of these factors it is important for athletes and their parents to recognize the signs and symptoms of heat illness and understand the basic treatment and prevention of these conditions.

The common types of heat illness are described in the table below, along with their typical symptoms associated body temperature.

TREATMENT

If you suspect your child is suffering from any form of heat illness, begin by stopping activity and moving the athlete to a cooler environment. Seek assistance from a qualified medical professional. Athletes that have collapsed due to heat syncope should be placed on their backs with their legs elevated to help restore blood flow to the brain. Fluids, such as water or sports drinks, should be given as tolerated, although IV hydration may be required. Heat cramps can be treated with fluid/electrolyte replacement, stretching, ice and massage. Mild heat exhaustion with normal vital signs may require no more than oral hydration and removal from the heat. However, more severe symptoms should be addressed with rapid cooling with ice packs in the groin and armpits, IV fluids and repeated monitoring. Heat stroke is the most severe of the heat-illness syndromes and therefore demands aggressive treatment to prevent complications (muscle breakdown, seizure, low blood pressure, abnormal heart rhythm, liver damage). Clothing should be removed and the athlete should be cooled rapidly, ideally by submersion in an ice or cold water bath, while monitoring for signs of hypothermia (shivering). If submersion is unavailable, ice packs and evaporative cooling with cool water spray and fanning should be used until EMS arrives. If your child experiences any type of heat illness, talk to your pediatrician before allowing him/her to return to activity.



PREVENTION

By keeping in mind the following principles you can help your young athlete prevent heat illness.

- Be aware of risk factors that may predispose athletes to heat illness:
 - Prior history of heat illness
 - Obesity
 - Poor physical conditioning
 - Lack of sleep
 - Sunburn
 - Certain medical conditions and medications (talk to your pediatrician for a complete list)
 - Heat retaining uniforms/protective equipment
- Allow athletes to gradually acclimate to exercising in the heat over a 10-14 day period
- Athletes should consume sufficient fluid before, during and after exercise to maintain hydration
- Modify or cancel activity as needed during times of increased heat
- Avoid exercise in the heat when ill, especially with fever, vomiting or diarrhea
- Stop exercise if symptoms of heat illness develop
- Allow at least two hours of rest and recovery between athletic contests in hot weather

<u>Condition</u>	<u>Signs/Symptoms</u>	<u>Body Temperature</u>
Heat Edema	Peripheral swelling, more common in older population	Normal
Heat Rash	Itchy, papulovesicular rash over clothed areas	Normal
Exercise Associated Collapse/Heat Syncope	Dizziness, weakness, loss of postural control	Normal
Exercise Associated Muscle Cramps	Painful muscle contractions	< 40° C
Heat Exhaustion	Dizziness, nausea/vomiting, headache, flushing, sweating, cold clammy skin	≤ 40° C
Heat Stroke	Hot skin +/- sweating, altered mental status	> 40° C