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Spine & Sports: Be wary of heat illness during summer sports

It's simple. If the body gets too hot and cannot cool down, it will develop a heat illness. It's a major safety issue during summer sports and recreational activities. Children are especially at risk because their bodies heat up faster than those of adults. They are less efficient at cooling, and they have smaller organs, which are more susceptible to damage. Heat illness is a cause for thousands of hospitalizations every year, and it is a major and preventable cause of death in young athletes.

As for kids, be mindful that they might not tell you about their symptoms, and they could easily overexert themselves and heat up. Provide children with frequent rest breaks and plenty of water and electrolytes if they will be playing in the heat and humidity. It is critical to keep children from overheating.

The early stages of heat illness reveal common symptoms of excessive thirst, profuse sweating, increased heart rate and muscle cramping. Syncope (fainting) is also a common when overheated. Left untreated in the early stages of heat illness, the next stage, heat exhaustion, will develop. Symptoms include dry mouth, headache, dizziness, nausea, disorientation and loss of urination (oliguria).

If the body is not cooled down, it could move toward the life-threatening stage: heat stroke. Heat stroke is a medical emergency. Internal body temperature goes above 104 degrees. Symptoms include all those seen in heat exhaustion, as well as changes in mental state such as confusion or belligerence, staggering, hot skin (wet or dry), rapid heart rate, vomiting and seizures. Blood clots develop, liver cells die, kidneys can shut down, lungs can swell and the victim may lapse into a coma and die without immediate and aggressive core cooling. Heat illness can occur by overexertion alone. Other risk factors for heat illness include dehydration, obesity and being on certain medications, such as diuretics. Caffeine and ephedra (in "energy drinks") increase susceptibility, as does alcohol. Equipment is a factor, such as in football, where the head and shoulders are covered by a helmet and pads, each a barrier for body cooling. Being dehydrated is a factor, as is not being acclimated to training in the heat. It takes a few weeks of training in the heat for the body to make adaptations.

Always prepare for the environment. Here are some basic tips: If you are an athlete, consume more water and salty foods a few days in advance of your event, and acclimate by training in the heat. Bring more than enough water and electrolyte drinks with you. Athletes competing in high-intensity endurance events can wear an ice vest in advance to keep the core cool and energy expenditure low. Wear the appropriate clothing and take advantage of the innovative wicking fabrics designed for hot weather. In the earliest stages of heat illness, get out of the sun or hot environment, cool down as quickly as possible and rest.

If a heat illness develops, do whatever is possible to get into a cooler and dryer environment, with shade, and preferably where there is air circulation or a fan. Ice bags on vital artery areas, such as the armpits, sides of neck, wrists and groin, are best. A cold, wet towel on the head can also help. Never hesitate to contact emergency medical services immediately.

A little preparation, understanding the basic concepts about heat illness and being ready to act on the earliest symptoms can make summer sports and activities safe.

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