



GUIDELINES FOR PARENTS AND ATHLETES EXERCISE-INDUCED HEAT-RELATED ILLNESS

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Some sports injuries caused by contact or overuse are often accepted risks when a young person plays sports. However, "heat injury," or illness resulting from excessive exercise in high temperature and humidity, is one type of sports injury that can almost always be prevented with proper attention to safety and common sense.

The 3 most common types of heat injury are:

- **Heat Cramps** – These are painful contractions of the muscles (most commonly leg muscles). Treatment is to stop exercise, gently massage the involved muscle, and drink lots of extra fluids.
- **Heat Exhaustion** – Symptoms include high temperature (up to 104°F), weakness, nausea, vomiting, dizziness, confusion, and fainting. Treatment is to stop exercise, either sit or lie down, and cool down (fanning, cool towels, ice bags, move to shaded or air-conditioned area). Also, giving lots of fluids is essential. If symptoms do not stop quickly, the athlete should be taken to an emergency room right away.
- **Heat Stroke** – This is a life-threatening emergency caused by extremely high temperatures (often higher than 107°F). Athletes can have seizures or go into shock or coma. They should be taken to an emergency room immediately.

Some common-sense rules to ensure safe exercise in the heat are as follows:

- **Fluids** - This is the most important way to prevent heat injury. Parents and coaches need to be sure children drink plenty of fluids before starting any exercise and that they continue to drink during exercise. A good starting point is about 4 to 6 ounces of fluid every 15 minutes for a 90-lb child. You should not depend on your child to tell you how much fluid he or she needs. Recording your child's weight (without clothes) both before and after exercise can help you determine how much fluid your child needs and help you adjust the next day's fluid intake. Athletes should weigh about the same before and after any activity. Cold water is fine for rehydration, but flavored sports drinks may stimulate your child to drink more. Fruit juices and soda are not good choices, as they contain too much sugar. Adding small amounts of salt to food is a good way to replace electrolytes, but avoid salt tablets, as they are irritating to the stomach and can be dangerous.
- **Environment** – It is harder for the body to control heat when temperatures are higher than 80°F, especially when the humidity is higher than 70%. Direct sunlight, as well as hot, humid winds, can also increase risk. Parents *and* coaches must be responsible for decreasing or stopping practices or competitions during periods of excessive heat and humidity. Moving practices indoors or to a shady area can help reduce the risk of heat injury to an athlete.
- **Clothing** - Heavy protective equipment or covering too much of the skin can make it more difficult for the body to get rid of excess heat. Clothing should be light-weight and should expose as much of the skin as possible for evaporation of sweat. Wearing a hat can also help.
- **Acclimatization** - This is the process by which the body gets used to exercising in the heat. The first 1 to 2 weeks of practice in hot, humid weather should start light and gradually increase in intensity.
- **Medical Conditions** - Anyone with acute illness (especially fever, vomiting, or diarrhea that can lead to dehydration) should avoid exercising in hot, humid conditions until the illness is completely gone. Children with chronic medical conditions (such as diabetes, cystic fibrosis, kidney disease) should talk to their pediatrician about how to maintain normal hydration. Certain medications (such as cold medicines) can make it harder for the body to get rid of heat and should be used as little as possible. Obesity (being overweight) can greatly increase the risk of heat injury. This is why preseason practice in late summer for larger athletes (such as football players) is especially risky. These athletes should start mild exercise early in the summer and slowly work up to full workouts. Last, anyone with a history of heat injury may be at increased risk for repeated injury and should pay extra attention to proper hydration and rest.
- **Knowledge** - Know the symptoms of heat illness and watch for them in your child. When a player feels confused, dizzy, nauseated, sleepy, or otherwise seems ill during exercise in hot, humid weather, heat illness should be considered. Have the child cool down and start drinking right away. If you do not see quick recovery, take the child to an emergency room. **It could save the child's life.**

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