

Heat Illness: What Yo

Don't Treat Heat Illness Lightly

Most coaches understand they need to take breaks between innings of games when the temperatures soar, giving their players a chance to rehydrate and dissipate their extra body heat. But be careful with practices, too.

High school, college and professional athletes have died of heat illness in the last several years during practices in hot, humid weather. Cory Stringer of the Minnesota Vikings NFL team is the most famous case, but the combination of high heat and humidity can create an atmosphere where the athletes' bodies cannot properly dissipate the heat they generate in even normal activities.

More recently, in late June an umpire in St. Louis had to be assisted from the field at Busch Stadium when he collapsed behind the plate after four innings during a game being played in 96 degree weather with high humidity.

Take breaks every 20 minutes for water and rest in the shade or with cool, wet clothes to drape over necks and promote evaporation to help the skin cool the body's interior.

Take a cooler with ice and water for players to use throughout practice and games. In severely hot areas like southern California, Arizona and New Mexico leagues have set up misters in the dugouts to spray a light water mist over the players to help cool them each inning.

Umpires need special attention, too, since they, like the catcher, wear extra protection which can keep their body's heat from being evaporated. But unlike catchers, the plate umpire doesn't take off the equipment. So make sure umpires drink plenty of water and take breaks for 10-15 minutes every couple of innings on especially hot days. A game's playing time is less important than a person's health, and heat injury can cause a prolonged susceptibility to heat.

Heat cramps may be felt in the legs or abdomen, while heat exhaustion may include dizziness, nausea, headaches and rapid heartbeat. This condition requires immediate medical attention, but is usually not life-threatening.

Heat stroke, which is a serious medical condition often resulting in death, occurs

when the body is unable to manage its heat load and fails to cool itself. The skin may be hot but dry, and the victim may be unconscious, delirious or having seizures. For athletes, the onset of heat stroke may be so swift that the person is still sweating.

The young and old are especially susceptible to heat illness, as are people who work or exercise strenuously outside for long periods during the day are also at increased risk for heat-related illness. This combination for young athletes demands coaches be vigilant.

- Lock your car doors even when you're home. Cars can be tempting places for young children to play, whether at the ball diamond or home. A three-year-old died last year in Dallas, Texas when he was trapped in an SUV for just 20 minutes when playing with other children. The outside temperatures reached 100, but the inside of the vehicle was estimated at 150 degrees.
- A 92-year-old rancher in Oklahoma died last year of a heart attack when he attempted to walk for help after his car would not start when out checking his cattle.

Relative Humidity (%)

| °F | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 | 95 | 100 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 110 | 136 | | | | | | | | | | | | |
| 108 | 130 | 137 | | | | | | | | | | | |
| 106 | 124 | 130 | 137 | | | | | | | | | | |
| 104 | 119 | 124 | 131 | 137 | | | | | | | | | |
| 102 | 114 | 119 | 124 | 130 | 137 | | | | | | | | |
| 100 | 109 | 114 | 118 | 124 | 129 | 136 | | | | | | | |
| 98 | 105 | 109 | 113 | 117 | 123 | 128 | 134 | | | | | | |
| 96 | 101 | 104 | 108 | 112 | 116 | 121 | 126 | 132 | | | | | |
| 94 | 97 | 100 | 102 | 106 | 110 | 114 | 119 | 124 | 129 | 136 | | | |
| 92 | 94 | 96 | 99 | 101 | 105 | 108 | 112 | 116 | 121 | 125 | 131 | | |
| 90 | 91 | 93 | 95 | 97 | 100 | 103 | 106 | 109 | 113 | 117 | 122 | 127 | 132 |
| 88 | 88 | 89 | 91 | 93 | 95 | 98 | 100 | 103 | 106 | 110 | 113 | 117 | 121 |
| 86 | 85 | 87 | 88 | 89 | 91 | 93 | 95 | 97 | 100 | 102 | 105 | 108 | 112 |
| 84 | 83 | 84 | 85 | 86 | 88 | 89 | 90 | 92 | 94 | 96 | 98 | 100 | 103 |
| 82 | 81 | 82 | 83 | 84 | 84 | 85 | 86 | 88 | 89 | 90 | 91 | 93 | 95 |
| 80 | 80 | 80 | 81 | 81 | 82 | 82 | 83 | 84 | 84 | 85 | 86 | 86 | 87 |

| With Prolonged Exposure and/or Physical Activity |
|---|
| Extreme Danger Heat Stroke or Sunstroke highly likely |
| Danger Sunstroke, muscle cramps, and/or heat exhaustion likely |
| Extreme Caution Sunstroke, muscle cramps, and/or heat exhaustion possible |
| Caution Fatigue Possible |

You Need to Know

People with health concerns, known or not, are also at higher risk, making children with health conditions doubly susceptible:

- An 11-year-old boy in Ohio died in late June from apparent heart disease complicated by heat. The young baseball player collapsed as he stood to go to the plate to bat. The day the young man died it was 84 degrees in Cleveland. An emergency medicine physician noted that a child, like an adult, with an underlying medical condition would be at greater risk for heat stroke if exposed to heat stress.

Beat Heat Illness: Prevent Heat Injuries Through Preparation

As the temperature and humidity rise, so do the risks of heat illness. July and August are the worst months for heat illness for athletes. Heat stress is the first stage of heat illness, with warning signs of thirst, fatigue, and feeling over hot. If these signs are ignored, heat illness may develop.

Heat illness is a life threatening, medical emergency that can be prevented if you follow some basic guidelines, and are aware of its signs and symptoms. Below you will find the three major types of heat illness, each with specific symptoms and treatments.

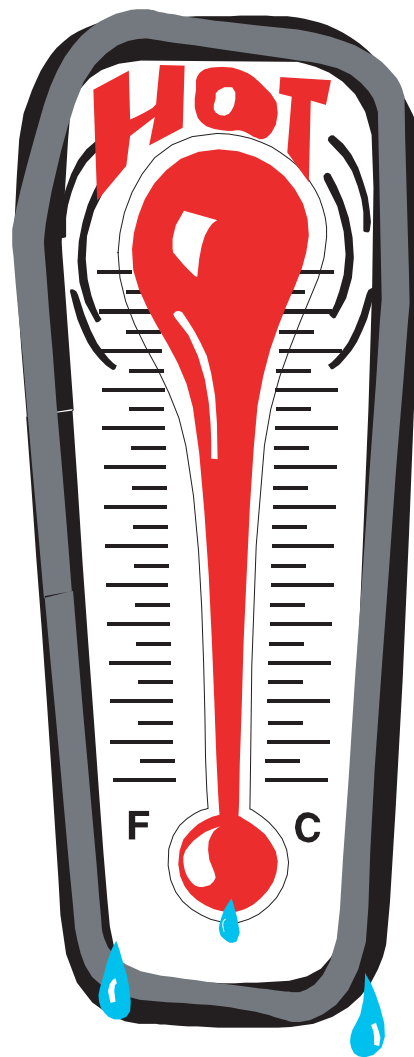
The early warning signs of heat stress include thirst, fatigue, and feeling hot. If these signs are ignored, serious heat illness beginning with cramps, and progressing to heat exhaustion and heat stroke can develop.

Heat cramps usually occur after strenuous exercise or an outdoor activity.

Symptoms of heat cramps are severe pain and cramps in the legs and abdomen, faintness or dizziness, weakness, and profuse sweating. This condition requires immediate medical attention, but is not usually life threatening.

Heat exhaustion happens when one is exposed to heat for a prolonged period of time. The body may become overwhelmed by heat when the sweat mechanism, which keeps the body cool, breaks down.

Symptoms of heat exhaustion include nausea, dizziness, weakness, headache, pale and moist skin, weak pulse or rapid heartbeat, and disorientation.



Heat stroke, unlike heat exhaustion, strikes suddenly and with little warning. When the body's cooling system fails, the body's temperature rises quickly. Heat stroke can be life threatening and requires immediate medical attention!

Symptoms of heat stroke include very high body temperature, hot, dry skin, lack of sweating, fast pulse, confusion, and possible loss of consciousness.

NOTE: For athletes, often the skin never stops sweating, even when entering heat stroke. It is necessary to evaluate the person's mental state for signs of confusion, disorientation or coma. If any of these are present, immediately contact medical help and begin cooling through cold water immersion or application, or by cold wet clothes application.

Tips to Prevent Heat Illness

- Know that once you are thirsty you are already dehydrated. Drink continuously, even before you are thirsty.
- Do not exercise vigorously during the hottest time of day. Try to train closer to sunrise or sunset.
- Wear light weight, light colored, loose clothing, such as cotton, so sweat can evaporate.
- Use a sunscreen to prevent sunburn, which can hinder the skin's ability to cool itself.
- Wear a hat that provides shade and allows ventilation.
- Drink plenty of liquids such as, water or sports drink every 15 minutes (drink 16-20 oz/hour).
- If you feel your abilities start to diminish, stop activity and try to cool off. Sit in shade, air conditioned car or use ice bags or cold water to lower body's temperature.
- Do not drink beverages with caffeine before or during exercise because they increase the rate of dehydration.
- **Remember, it is easier to prevent heat illness than to treat it once symptoms develop.**