

# Heat Exhaustion, Heat Cramps, and Heat Stroke



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Heat cramps feel like severe muscle spasms in the calves of the legs. Other symptoms of heat cramps include a weak pulse and dilated (enlarged) pupils. They are caused by dehydration, loss of electrolytes, and high environmental temperatures. Heat cramps are not considered life threatening, but if ignored could progress to heat exhaustion. The person experiencing heat cramps should rest in a cool area and drink water or sport drinks containing electrolytes.

Heat exhaustion is more serious when compared to heat cramps Heat stroke is extreme body heat due to dehydration and loss of the body's ability to regulate body temperature. This condition impacts the central nervous system. The following are symptoms of heat exhaustion: a body temperature of up to 103 degrees, nausea with vomiting, becoming pale, fatigue and exhaustion, dizziness, sweating, rapid heart rate, low blood pressure, lack of coordination, thirst, agitation, and rapid breathing. The person experiencing heat exhaustion should go to a cool environment, drink liquids (as water and sport drinks with electrolytes), plus place cool-moist towels on the body to reduce body heat. If symptoms

of heat exhaustion are not relieved, the person should seek medical help.

Heat stroke is the most serious of the heat related conditions and is considered an emergency requiring immediate medical help. This condition is due to high temperatures for an extended time and dehydration. Hiking or rock collecting could also contribute to heat stroke, but this condition can occur without exercise. Persons who are very young or older are more prone to heat stroke The person with heat stroke has the following symptoms: a body temperature of over 105 degrees, headache, fast pulse rate, exhaustion, confusion, disorientation, hot-flushed skin, and unconsciousness. Treatment in the hospital includes hydration and electrolyte replacement, cooling measures, rest, plus close observation.

Risk factors which increase the occurrence of heat exhaustion and heat stroke are as follows: not acclimated to dry-Arizona heat, poor physical conditioning, obesity, chronic diseases (uncontrolled diabetes, high blood pressure, or heart disease), and use of alcohol. Environmental factors promoting heat exhaustion and heat stroke are high temperatures, poor air circulation, and heavy clothing.

**Prevention of heat cramps, heat exhaustion, and heat stroke:**

- Use light weight, loose fitting clothing.
- Wear a ventilated, straw hat.
- Use sun block lotion.

- **Avoid dehydration by drinking 8 oz. of fluids for every 15 minutes of exercise.**
- **Seeking shaded wide open area for rest breaks.**
- **Remember early signs of heat illnesses as getting warm and light headed- time for a break in the shade.**