

Symptoms and First Aid for Heat Related Illnesses Especially During Exercise

Heat Cramps: First Aid

Heat cramps are painful, involuntary muscle spasms that usually occur during heavy exercise in hot environments. The spasms may be more intense and more prolonged than typical nighttime leg cramps. Inadequate fluid intake often contributes to heat cramps. Muscles most often affected include those of your calves, arms, abdominal wall and back, although heat cramps may involve any muscle group involved in exercise.

If you suspect heat cramps:

- Rest briefly and cool down
- Drink clear juice or an electrolyte-containing drink
- Practice gentle, range-of-motion stretching and gentle massage of the affected muscle group
- Don't resume strenuous activity for several hours or longer after heat cramps go away
- Call your doctor if your cramps don't go away within one hour or so

Heat Exhaustion: First Aid

Heat exhaustion is one of the heat-related syndromes, which range in severity from mild heat cramps to heat exhaustion to potentially life-threatening heatstroke. Signs and symptoms of heat exhaustion often begin suddenly, sometimes after excessive exercise, heavy perspiration, and inadequate fluid or salt intake. Signs and symptoms resemble those of shock and may include:

- Feeling faint or dizzy
- Nausea
- Heavy sweating
- Rapid, weak heartbeat
- Low blood pressure
- Cool, moist, pale skin
- Low-grade fever
- Heat cramps
- Headache
- Fatigue
- Dark-colored urine

If you suspect heat exhaustion:

- Get the person out of the sun and into a shady or air-conditioned location
 - Lay the person down and elevate the legs and feet slightly
 - Loosen or remove the person's clothing.
 - Have the person drink cool water or other nonalcoholic beverage without caffeine
 - Cool the person by spraying or sponging him or her with cool water and fanning
 - Monitor the person carefully. Heat exhaustion can quickly become heatstroke
- If fever greater than 102 F (38.9 C), fainting, confusion or seizures occur, call 911 or emergency medical help.

Heat Stroke: First Aid

Heatstroke is the most severe of the heat-related problems, often resulting from exercise or heavy work in hot environments combined with inadequate fluid intake. Young children, older adults, people who are obese and people born with an impaired ability to sweat are at high risk of heatstroke. Other risk factors include dehydration, alcohol use, cardiovascular disease and certain medications.

What makes heatstroke severe and potentially life-threatening is that the body's normal mechanisms for dealing with heat stress, such as sweating and temperature control, are inadequate. The main sign of heatstroke is a markedly elevated body temperature — generally greater than 104 F (40 C) — with changes in mental status ranging from personality changes to confusion and coma. Skin may be hot and dry — although if heatstroke is caused by exertion, the skin may be moist. Other signs and symptoms may include:

- Rapid heartbeat
- Rapid and shallow breathing
- Elevated or lowered blood pressure
- Cessation of sweating
- Irritability, confusion or unconsciousness
- Feeling dizzy or lightheaded
- Headache
- Nausea
- Fainting, which may be the first sign in older adults

If you suspect heatstroke:

- Move the person out of the sun and into a shady or air-conditioned space
- Call 911 or emergency medical help
- Cool the person by covering him or her with damp sheets or by spraying with cool water. Direct air onto the person with a fan or newspaper.
- Have the person drink cool water or other nonalcoholic beverage without caffeine, if he or she is able