

Heat emergencies

Heat emergencies fall into three categories of increasing severity: heat cramps, heat exhaustion, and heatstroke.

Considerations

Heat illnesses are easily preventable by taking precautions in hot weather.

Children, elderly, and [obese](#) people have a higher risk of developing heat illness. People taking certain medications or drinking alcohol also have a higher risk. However, even a top athlete in superb condition can succumb to heat illness if he or she ignores the warning signs.

If the problem isn't addressed, heat cramps (caused by loss of salt from heavy sweating) can lead to heat exhaustion (caused by [dehydration](#)), which can progress to heatstroke. Heatstroke, the most serious of the three, can cause [shock](#), brain damage, organ failure, and even death.

Causes

Heat emergencies are caused by prolonged exposure to extreme heat. The following are common causes of heat emergencies:

- [Alcohol use](#)
- [Dehydration](#)
- Heart disease
- High temperatures or humidity
- Medications such as diuretics, neuroleptics, phenothiazines, and anticholinergics
- Prolonged or excessive [exercise](#)
- Sweat gland problems
- Too much clothing

Symptoms

The early symptoms of heat illness include:

- [Profuse sweating](#)
- [Fatigue](#)
- [Thirst](#)
- [Muscle cramps](#)

Later symptoms of heat exhaustion include:

- [Headache](#)
- [Dizziness](#) and [lightheadedness](#)
- [Weakness](#)
- [Nausea and vomiting](#)
- [Cool, moist skin](#)
- [Dark urine](#)

The symptoms of heatstroke include:

- Fever (temperature above 104 °F)
- Irrational behavior
- Extreme confusion
- Dry, hot, and red skin
- [Rapid, shallow breathing](#)
- [Rapid, weak pulse](#)
- [Seizures](#)
- [Unconsciousness](#)

First Aid

1. Have the person lie down in a cool place. Raise the person's feet about 12 inches.
2. Apply cool, wet cloths (or cool water directly) to the person's skin and use a fan to lower body temperature. Place cold compresses on the person's neck, groin, and armpits.
3. If alert, give the person beverages to sip (such as Gatorade), or make a salted drink by adding a teaspoon of salt per quart of water. Give a half cup every 15 minutes. Cool water will do if salt beverages are not available.
4. For [muscle cramps](#), give beverages as above and massage affected muscles gently, but firmly, until they relax.
5. If the person shows signs of [shock](#) ([bluish lips and fingernails](#) and [decreased alertness](#)), starts having [seizures](#), or loses consciousness, call 911 and give first aid as needed.

DO NOT

- Do NOT underestimate the seriousness of heat illness, especially if the person is a child, elderly, or injured.
- Do NOT give the person medications that are used to treat fever (such as aspirin or acetaminophen). They will not help, and they may be harmful.
- Do NOT give the person salt tablets.
- Do NOT give the person liquids that contain alcohol or caffeine. They will interfere with the body's ability to control its internal temperature.
- Do NOT use alcohol rubs on the person's skin.
- Do NOT give the person anything by mouth (not even salted drinks) if the person is vomiting or unconscious.

When to Contact a Medical Professional

Call 911 if:

- The person loses consciousness at any time.
- There is any other change in the person's alertness (for example, confusion or seizures).
- The person has a fever over 102 °F.
- Other symptoms of heatstroke are present (like rapid pulse or rapid breathing).
- The person's condition does not improve, or worsens despite treatment.

Prevention

- Wear loose-fitting, lightweight clothing in hot weather.
- Rest frequently and seek shade when possible.
- Avoid exercise or strenuous physical activity outside during hot or humid weather.
- Drink plenty of fluids every day. Drink more fluids before, during, and after physical activity.
- Be especially careful to avoid overheating if you are taking drugs that impair heat regulation, or if you are overweight or elderly.
- Be careful of hot cars in the summer. Allow the car to cool off before getting in.