

Preventing Heat-Related Illness

- **Dress for the heat.** Wear lightweight, light-colored clothing. Light colors will reflect away some of the sun's energy. Protect yourself from the sun by wearing a wide-brimmed hat (also keeps you cooler) and sunglasses and by putting on sunscreen of SPF 15 or higher (the most effective products say “broad spectrum” or “UVA/UVB protection” on their labels).
- **Drink water.** Carry water or juice with you and drink continuously even if you do not feel thirsty.
- **Eat small meals and eat more often.** Avoid foods that are high in protein which increase metabolic heat.
- **Slow down.** Avoid strenuous activity. If you must do strenuous activity, do it during the coolest part of the day, which is usually in the morning between 4:00 a.m. and 7:00 a.m.
- **Stay indoors when possible.**
- **Take regular breaks** when engaged in physical activity on warm days Try to rest often in shady areas.
- Take time out to find a cool place. If you recognize that you, or someone else, is showing the signals of a heat-related illness, stop activity and find a cool place. Remember, have fun, but stay cool!

Know What These Heat-Related Terms Mean

- **Heat Wave:** More than 48 hours of high heat (90°F or higher) and high humidity (80 percent relative humidity or higher) are expected.
 - **Heat Index:** A number in degrees Fahrenheit that tells how hot it really feels with the heat and humidity. Exposure to full sunshine can increase the heat index by 15° F.
 - **Heat cramps:** Heat cramps are muscular pains and spasms due to heavy exertion. They usually involve the abdominal muscles or the legs. It is generally thought that the loss of water and salt from heavy sweating causes the cramps.
 - **Heat Exhaustion:** Heat exhaustion is less dangerous than heat stroke. It typically occurs when people exercise heavily or work in a warm, humid place where body fluids are lost through heavy sweating. Fluid loss causes blood flow to decrease in the vital organs, resulting in a form of shock. With heat exhaustion, sweat does not evaporate as it should, possibly because of high humidity or too many layers of clothing. As a result, the body is not cooled properly. Signals include cool, moist, pale, flushed or red skin; heavy sweating; headache; nausea or vomiting; dizziness; and exhaustion. Body temperature will be near normal.
1. **Heat Stroke:** Also known as sunstroke, heat stroke is life-threatening. The victim's temperature control system, which produces sweating to cool the body, stops working. The body temperature can rise so high that brain damage and death may result if the body is not cooled quickly.

Stages of Heat-Related Illness

Heat-related illness usually comes in stages.

The signal of the first stage is **heat cramps** in muscles. These cramps can be very painful. If you are caring for a person who has heat cramps, have him or her stop activity and rest. If the person is fully awake and alert, have him or her drink small amounts of cool water or a commercial sports drink. Gently stretch the cramped muscle and hold the stretch for about 20 seconds, then gently massage the muscle. Repeat these steps if necessary. If the victim has no other signals of heat-related illness, the person may resume activity after the cramps stop.

The signals of the next, more serious stage of a heat-related illness (often called **heat exhaustion**) include—

- The skin may or may not feel hot
- Cool, moist, pale skin (the skin may be red right after physical activity).
- Heavy sweating
- Headache.
- Dizziness and weakness or exhaustion.
- Fainting.
- Paleness.

- Muscle cramps.
- Tiredness.
- Nausea. or vomiting
- Breathing will be fast and shallow.

The signals of the late stage of a heat-related illness (often called **heat stroke**) include—

- Vomiting.
- Decreased alertness level or complete loss of consciousness.
- High body temperature (above 103 °F sometimes as high as 105°F).
- Skin may still be moist or the victim may stop sweating and the skin may be red, hot and dry.
- Rapid, weak pulse.
- Rapid, shallow breathing.
- Throbbing headache
- Dizziness
- This late stage of a heat-related illness is life threatening. Call 9-1-1 or the local emergency number.

General Care for Heat Emergencies

1. **Cool the Body**
2. **Give Fluids**
3. **Minimize Shock**

- **For heat cramps or heat exhaustion:** Get the person to a cooler place and have him or her rest in a comfortable position.
- If the person is fully awake and alert, give a half glass of cool water every 15 minutes. Do not let him or her drink too quickly. Do not give liquids with alcohol or caffeine in them, as they can make conditions worse.
- Remove or loosen tight clothing and apply cool, wet cloths such as towels or wet sheets.
- Call 9-1-1 or the local emergency number if the person refuses water, vomits or loses consciousness.
- **For heat stroke:** Heat stroke is a life-threatening situation! Help is needed fast. Call 9-1-1 or your local EMS number.
 - Move the person to a cooler place or a shady area. Quickly cool the body. Cool the victim rapidly, using whatever methods you can. For example, immerse the victim in a tub of cool water; place the person in a cool shower; spray the victim with cool water from a garden hose; sponge the person with cool water; or if the humidity is low, wrap the victim in a cool, wet sheet and fan him or her vigorously.
 - If you have ice packs or cold packs, wrap them in a cloth and place them on each of the victim's wrists and ankles, in the armpits and on the neck to cool the large blood vessels.
 - Monitor body temperature and continue cooling efforts until the body temperature drops to 101-102°F.
 - Watch for signals of breathing problems and make sure the airway is clear. Keep the person lying down..