

Fact Sheet

Extreme Heat

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FEMA

Heat kills by pushing the human body beyond its limits. In extreme heat and high humidity, evaporation is slowed and the body must work extra hard to maintain a normal temperature. Most heat disorders occur because the victim has been overexposed to heat or has over-exercised for his or her age and physical condition. Older adults, young children, and those who are sick or overweight are more likely to succumb to extreme heat.

Conditions that can induce heat-related illnesses include stagnant atmospheric conditions and poor air quality. Consequently, people living in urban areas may be at greater risk from the effects of a prolonged heat wave than those living in rural areas. Also, asphalt and concrete store heat longer and gradually release heat at night, which can produce higher nighttime temperatures known as the “urban heat island effect.”

Know Your Risk and What to Do

- Contact your local emergency management office to learn about community emergency plans and what you should include in yours.
- Get additional information from the U.S. Department of Homeland Security (www.ready.gov), the American Red Cross (www.redcross.org) and the Federal Emergency Management Agency (www.fema.gov).
- Inquire about emergency plans and procedures at your child’s school, at your workplace and at any institution where a member of your family is resident or receives care on a regular basis.
- Make a family disaster plan that includes out-of-town contacts and locations to reunite if you become separated. Be sure everyone knows home, work and cell phone numbers, and how to call 9-1-1.
- Assemble a 3-day disaster supplies kit with food, water, medical supplies, battery-powered radio and NOAA Weather Radio All Hazards, batteries, flashlights, and other items. If you have space and you are concerned about situations that might require lengthy shelter, consider storing food and water supplies for up to a month. For more information about assembling a disaster supplies kit, visit www.fema.gov/areyouready/.
- Gather important documents such as birth and marriage certificates, social security cards, passports, wills, deeds, and financial and insurance records. Store them in a fire- and water-safe location or safe deposit box.

Before Extreme Heat

- Cover windows that receive morning or afternoon sun with drapes, shades, awnings, or louvers. (Outdoor awnings or louvers can reduce the heat that enters a home by up to 80 percent.) Install temporary window reflectors between windows and drapes, such as aluminum foil-covered cardboard, to reflect heat back outside.
- Weather-strip doors and sills to keep cool air in. Keep storm windows up all year.

During Extreme Heat

- Stay indoors as much as possible and limit exposure to the sun.
- Stay on the lowest floor if air conditioning is not available.
- Consider spending the warmest part of the day in public buildings such as libraries, movie theaters, shopping malls, and other community facilities.
- Avoid strenuous work during the warmest part of the day. Use a buddy system when working in extreme heat, and take frequent breaks.
- Dress in loose-fitting, lightweight, and light-colored clothes that cover as much skin as possible.
- Protect face and head by wearing a wide-brimmed hat.
- Eat well-balanced, light, and regular meals. Avoid using salt tablets unless directed to do so by a physician.
- Drink plenty of water. Persons who have epilepsy or heart, kidney, or liver disease, are on fluid-restricted diets, or have a problem with fluid retention should consult a doctor before increasing liquid intake.
- Limit intake of alcoholic beverages.
- Check on family, friends, and neighbors who do not have air conditioning and who spend their time alone.
- Never leave children or pets alone in closed vehicles.

Know the Terms

- **Heat Cramps** – Muscular pains and spasms due to heavy exertion. Heat cramps are often the first signal that the body is having trouble with the heat.
- **Heat Exhaustion** – Typically occurs when people exercise heavily or work in a hot, humid place where body fluids are lost through heavy sweating. Blood flow to the skin increases, causing blood flow to decrease to the vital organs. This results in a form of mild shock. If not treated, the victim's condition will worsen. Body temperature will keep rising and the victim may suffer heat stroke.
- **Heat Stroke (also Sun Stroke)** – A life-threatening condition. 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.

Signals of Heat Emergencies

- **Heat exhaustion:** Cool, moist, pale, or flushed skin; heavy sweating; headache; nausea or vomiting; dizziness; and exhaustion. Body temperature will be near normal.
- **Heat stroke:** Hot, red skin; changes in consciousness; rapid, weak pulse; and rapid, shallow breathing. Body temperature can be very high-- as high as 105 degrees F. If the person was sweating from heavy work or exercise, skin may be wet; otherwise, it will feel dry.

Treatment of Heat Emergencies

- **Heat cramps:** Get the person to a cooler place and have him or her rest in a comfortable position. Lightly stretch the affected muscle and replenish fluids. Give a half glass of cool water every 15 minutes. Do not give liquids with alcohol or caffeine in them, as they can make conditions worse.
- **Heat exhaustion:** Get the person to a cooler place and have him or her rest in a comfortable position. Remove or loosen tight clothing and apply cool, wet cloths, such as towels or sheets. If the person is conscious, give cool water to drink. Make sure the person drinks slowly. Give a half glass of cool water every 15 minutes. Do not give liquids that contain alcohol or caffeine. Watch carefully for changes in his/her condition.
- **Heat stroke:** Heat stroke is a life-threatening situation. Help is needed fast. Call 9-1-1 or your local emergency number. Move the person to a cooler place. Quickly cool the body. Immerse victim in a cool bath, or wrap wet sheets around the body and fan it. Watch for signals of breathing problems. Keep the person lying down and continue to cool the body any way you can. If the victim refuses water or is vomiting or if there are changes in the level of consciousness, do not give anything to eat or drink.

The Recovery Process

- For direct assistance to individuals and families for immediate needs contact the American Red Cross or other local voluntary agencies.
- Check newspapers, television, or radio news for information on disaster assistance available.
- **Heat Wave: A Major Summer Killer.** An online brochure describing the heat index, heat disorders, and heat wave safety tips. Available online at: www.nws.noaa.gov/om//brochures/heat_wave.htm
- For information on helping children deal with disaster, visit www.fema.gov or get a copy of FEMA 478 **Helping Children Cope with Disaster**. To obtain other fact sheets and publications call the FEMA publications warehouse at 1-800-480-2520.

Dangerous Extreme Heat Myth!	The Facts:
If someone is suffering from heat stroke, it is enough to give them water and get them to a cool place.	Heat stroke is a severe medical emergency that requires immediate medical attention. Symptoms could include: high body temperature (105+); hot, red, dry skin; rapid, weak pulse; and rapid shallow breathing. Victim will probably not sweat unless victim was sweating from recent strenuous activity. If you think someone is suffering from heat stroke, call 9-1-1 or emergency medical services, or get the victim to a hospital immediately. Delay can be fatal.