

Beware the dangers of extreme heat

Our bodies normally cool by sweating. But under some conditions, sweating just isn't enough. In such cases, a person's body temperature rises rapidly. Very high body temperatures may damage the brain or other vital organs, and can lead to death.

Several factors affect your body's ability to cool itself during extremely hot weather. When the humidity is high, sweat doesn't evaporate as quickly, which prevents your body from releasing heat quickly. Other conditions related to risk include age, obesity, fever, dehydration, heart disease, mental illness, poor circulation, sunburn and prescription drug and alcohol use.

After the storm, it's important to balance your clean-up activities with measures that help your body's cooling mechanisms and prevent heat-related illness

What Is Extreme Heat?

Temperatures that are 10 degrees or more above the average high temperature for your region and last for several weeks are defined as extreme heat. Excessively dry and hot conditions can provoke dust storms and low visibility. Droughts occur when a long period passes without substantial rainfall. A heat wave combined with a drought is a very dangerous situation.

During Hot Weather

To protect your health when temperatures are extremely high, remember to keep cool and use common sense. The following tips are important:

- **Drink Plenty of Fluids.** During hot weather you'll need to increase your fluid intake, regardless of your activity level. Don't wait until you're thirsty to drink. During storm clean-up in a hot environment, drink two to four glasses (16-32 ounces) of cool fluids each hour. If your doctor generally limits the amount of fluid you drink or has you on water pills, ask how much you should drink while the weather is hot.
- **Don't drink liquids that contain alcohol** or large amounts of sugar. They actually cause you to lose more body fluid. Also avoid very cold drinks, because they can cause stomach cramps.
- **Replace Salt and Minerals.** Heavy sweating removes salt and minerals from the body. These are necessary for your body and must be replaced. If you must exercise, drink two to four glasses of cool, non-alcoholic fluids each hour. A sports beverage can replace the salt and minerals you lose in sweat. However, if you are on a low-salt diet, talk with your doctor before drinking a sports beverage or taking salt tablets.
- **Wear Appropriate Clothing and Sunscreen.** Choose lightweight, light-colored and loose-fitting clothing. Besides causing pain and skin damage, sunburn affects your body's ability to cool itself and causes a loss of body fluids. If you must go outdoors, protect yourself from the sun by wearing a wide-brimmed hat (also keeps you cooler) along with sunglasses, and apply sunscreen of SPF 15 or higher) 30 minutes prior to going out. Continue to reapply it according to the package directions.
- **Schedule Outdoor Activities Carefully.** If you must be outdoors, try to limit your outdoor activity to morning and evening hours. Try to rest often in shady areas so that your body's thermostat will have a chance to recover.
- **Pace Yourself.** If you aren't used to working a hot environment, start slowly and pick up the pace gradually. If exertion in the heat makes your heart pound and leaves you gasping for breath, stop all activity. Get into a cool area or at least into the shade, and rest, especially if you become lightheaded, confused, weak, or faint.
- **Stay Cool Indoors.** Stay indoors and, if at all possible, stay in an air-conditioned place. If your home doesn't have air conditioning, try to go to the shopping mall or public library. Even a few hours spent in air conditioning can help your body stay cooler when you go back into the heat. Electric fans provide some comfort, but when the temperature is in the high 90s, fans will not prevent heat-related illness. Taking a cool shower or moving to an air-conditioned place is a much better way to cool off.

- **Use a Buddy System.** When working in the heat during clean-up, monitor the condition of your neighbors and have someone do the same for you. Heat-induced illness can cause a person to become confused or lose consciousness. If you're 65 years of age or older, have someone check on you twice a day. If you know someone in this age group, check on them at least twice a day.
- **Monitor Those at High Risk.** Although any one can suffer from heat-related illness, some people are at greater risk than others. Visit these individuals at least twice a day and watch them for signs of heat exhaustion or heat stroke. Infants and young children, of course, need much more frequent watching.
 - Infants and children up to four years of age are sensitive to the effects of high temperatures and need others to regulate their environments and provide adequate liquids.
 - People 65 years of age or older may not compensate for heat stress efficiently and are less likely to sense and respond to change in temperature.
 - People who are overweight may be prone to heat sickness because of their tendency to retain more body heat.
 - People who overexert during work or exercise may become dehydrated and susceptible to heat sickness.
 - People who are physically ill, especially with heart disease or high blood pressure, or who take certain medications, such as for depression, insomnia, or poor circulation, may be affected by extreme heat.
- **Adjust to the Environment.** Keep in mind that any sudden change in temperature will be stressful to your body. You will have a greater tolerance for heat if you limit your physical activity until you become accustomed to the heat. If you travel to a hotter climate, allow several days to become acclimated before attempting any vigorous clean-up, and work up to it gradually.
- **Use Common Sense.** Remember to keep cool and use common sense:
 - Avoid hot foods and heavy meals—they add heat to your body.
 - Drink plenty of fluids and replace salts and minerals in your body.
 - Dress infants and children in cool, loose clothing and shade their heads and faces with hats or an umbrella.
 - Limit sun exposure during mid-day hours and in places of potential severe exposure such as beaches.
 - Do not leave infants, children, or pets in a parked car.
 - Provide plenty of fresh water for your pets, and leave the water in a shady area.

Even short periods of high temperatures can cause serious health problems. Doing too much on a hot day, spending too much time in the sun or staying too long in an overheated place can cause heat-related illnesses. **Know the symptoms of heat disorders and overexposure to the sun, and be ready to give first aid treatment or call for help.**

Heat Rash is a skin irritation caused by excessive sweating during hot, humid weather. It can occur at any age but is most common in young children.

Recognizing Heat Rash

Heat rash looks like a red cluster of pimples or small blisters. It is more likely to occur on the neck and upper chest, in the groin, under the breasts, and in elbow creases.

What to Do

The best treatment for heat rash is to provide a cooler, less humid environment. Keep the affected area dry. Dusting powder may be used to increase comfort, but avoid using ointments or creams—they keep the skin warm and moist and may make the condition worse. Treating heat rash is simple and usually does not require medical assistance. Other heat-related problems can be much more severe.

Sunburn damages the skin. That's why it's important to wear sunscreen and take steps to avoid exposure to the sun. Although the discomfort of sunburn is usually minor and healing often occurs in about a week, severe sunburn may require medical attention.

Recognizing Sunburn

Symptoms of sunburn are well known: the skin becomes red, painful, and abnormally warm after sun exposure.

What to Do

Consult a doctor if the sunburn affects an infant younger than 1 year of age or if these symptoms are present:

Fever

Fluid-filled blisters

Severe pain

Also, remember these tips when treating sunburn:

- Avoid repeated sun exposure.
- Apply cold compresses or immerse the sunburned area in cool water.
- Apply moisturizing lotion to affected areas. Do not use salve, butter, or ointment.
- Do not break blisters.

Heat Cramps usually affect people who sweat a lot during strenuous activity. This sweating depletes the body's salt and moisture. The low salt level in the muscles causes painful cramps. Heat cramps may also be a symptom of heat exhaustion.

Recognizing Heat Cramps

Heat cramps are muscle pains or spasms – usually in the abdomen, arms, or legs – that may occur in association with strenuous activity. If you have heart problems or are on a low-sodium diet, get medical attention for heat cramps.

What to Do

If medical attention is not necessary, take these steps:

- Stop all activity, and sit quietly in a cool place.
- Drink clear juice or a sports beverage.
- Do not resume strenuous activity for a few hours after the cramps subside, because further exertion may lead to heat exhaustion or heat stroke.
- Seek medical attention for heat cramps if they do not subside in one hour.

Heat Exhaustion is a heat-related illness that can develop after several days of exposure to high temperatures and inadequate or unbalanced replacement of fluids. It is the body's response to an excessive loss of the water and salt contained in sweat. Those most prone to heat exhaustion are elderly people, people with high blood pressure and people working in a hot environment.

Recognizing Heat Exhaustion

Warning signs of heat exhaustion include the following:

- Heavy sweating
- Paleness
- Muscle cramps
- Tiredness
- Weakness
- Dizziness
- Headache
- Nausea or vomiting
- Fainting
- The skin may be cool and moist.
- The victim's pulse rate will be fast and weak, and breathing will be fast and shallow.

If heat exhaustion is untreated, it may progress to heat stroke. Seek medical attention immediately if any of the following occurs:

- Symptoms are severe
- The victim has heart problems or high blood pressure

Otherwise, help the victim to cool off, and seek medical attention if symptoms worsen or last longer than one hour.

What to Do

Cooling measures that may be effective include the following:

- Cool, nonalcoholic beverages
- Rest
- Cool shower, bath, or sponge bath
- An air-conditioned environment
- Lightweight clothing

Heat Stroke occurs when the body is unable to regulate its temperature. The body's temperature rises rapidly, the sweating mechanism fails and the body is unable to cool down. Body temperature may rise to 106°F or higher very rapidly – within 10 to 15 minutes. ***Heat stroke can cause death or permanent disability if emergency treatment is not provided.***

Recognizing Heat Stroke

Warning signs of heat stroke vary but may include the following:

- An extremely high body temperature (above 103°F, orally)
- Red, hot, and dry skin (no sweating)
- Rapid, strong pulse
- Throbbing headache
- Dizziness
- Nausea
- Confusion
- Unconsciousness

What to Do

Heat stroke is a medical emergency. Have someone call for immediate medical assistance while you begin cooling the victim.

- Get the victim to a shady area.
- Cool the victim rapidly using whatever methods you can. You can try the following:
 - Immerse the victim in a tub of cool water;
 - Place the person in a cool shower or 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.
- Monitor body temperature, and continue cooling efforts until the body temperature drops to 101-102°F.
- If emergency medical personnel are delayed, call the hospital emergency room for further instructions.
- Do not give the victim fluids to drink.
- Sometimes a victim's muscles will begin to twitch uncontrollably as a result of heat stroke. If this happens, keep the victim from injuring himself, but do not place any object in the mouth and do not give fluids.
- If the victim is vomiting, make sure the airway remains open by turning the victim on his or her side.

For more information, contact your physician or local county health department.