



How Can I Prevent Heat Related Illness?

- **DRINK** - Drink plenty of cool fluids, even if you are not physically active and even if you are not thirsty. If you are physically active, drink 2-4 glasses (16-32 ounces) every hour.
- **DRESS** - Wear lightweight, light-colored, loose-fitting clothing. Add a wide brimmed hat, sunglasses and sunscreen (SPF 15 or higher).
- **DECREASE** - Limit physical activity, stay indoors in an air-conditioned space or, when available, buildings open to the public as special, "Cooling Centers." Electric fans will not prevent heat-related illness, and may actually be harmful, when the temperature climbs into the high 90s.
- **DEFEND** - If working outside in the heat, monitor coworkers and ask them to do the same for you. Check on the elderly at least twice a day. Check on infants and young children frequently. Check on those who are overweight, ill or who are on medication.
- **DEMONSTRATE** - Use common sense. Avoid hot foods or drinks and heavy meals. Make sure animals and pets have plenty of fresh water and shade. Consider bringing pets inside and consider wetting down outside animals.
- **DON'T** - Do NOT leave any person or pet in a parked car for any length of time for any reason.

EXTREME HEAT

What is Extreme Heat?

Temperatures that hover 10 degrees or more above the average high temperature for the region and last for several weeks are defined as extreme heat. In areas with moderate temperatures like Sonoma County, even extended periods of heat above 90 degrees can pose a risk. Periods of extreme heat push the human body beyond its limits and can result in illness or even death.

What Are the Effects of Extreme Heat?

Heat emergencies have claimed more lives over the past 16 years than all other declared disaster events combined. In California, typical summer temperatures contribute to an average of 20 deaths per year. However, the heat wave experienced by California in July 2006 caused the death of at least 140 people over a 13-day period. The good news is that there are simple steps people can take to protect themselves, their family and friends.



Who Is Most At Risk from Extreme Heat?

Although any one at any time can suffer from heat-related illness, some people are at greater risk than others.

- Infants and children up to four years of age are sensitive to the effects of high temperatures and rely on 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 over-exert 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.

Visit at-risk adults at least twice a day and closely watch them for signs of heat exhaustion or heat stroke. Be alert to signs of heat stress in co-workers and take steps to help cool them down. Carefully watch infants and young children to protect them from exposure to extreme heat.



Heat Exhaustion

Heat exhaustion is a milder form of heat-related illness that can develop after exposure to high temperatures, warm nights 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 or exercising in a hot environment.

Warning signs

- Heavy sweating
- Paleness
- Muscle cramps
- Tiredness
- Weakness
- Dizziness
- Headache
- Nausea or vomiting
- Fainting

What to Do

Effective cooling measures include the following:

- Drink cool, non-alcoholic beverages.
- Rest in cool, shaded or air-conditioned environment.
- Take a cool shower, bath, or sponge bath.
- Wear light-weight clothing.

If the victim has heart problems, high blood pressure, or if symptoms last longer than 1 hour or worsen, seek medical attention immediately.

If heat exhaustion is untreated, it may progress to heat stroke.

Heat Stroke

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 within 10 to 15 minutes. Heat stroke can cause death or permanent disability if emergency treatment is not provided.

Warning signs

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

What to Do

Have someone call for immediate medical assistance while you begin cooling the victim. Do the following:

- Get the victim to a shady area.
- Cool the victim rapidly using whatever methods you can. For example, immerse the victim in a tub of cool water.
- Monitor body temperature, and continue cooling efforts until the body temperature drops to 101-102°F.
- Call the hospital emergency room for further instructions.
- Do not give the victim fluids to drink.

If there is vomiting, make sure the airway remains open by turning the victim on his or her side.

What is Public Health doing to help the community deal with extreme heat?

The Extreme Heat Response Plan outlines a series of steps to be taken to monitor temperatures, provide important preventative information to the public, mobilize emergency responders and community agencies to assist the public and those most at-risk for heat related illness. If necessary, "Cooling Centers" will be opened to the public. Local newspapers and radio will help alert the public about location of cooling centers and how best to stay safe during the heat wave.

References

Extreme Heat: A Prevention Guide to Promote Your Personal Health and Safety:

http://www.bt.cdc.gov/disasters/extremeheat/heat_guide.asp

Department of Health Services - Public Health Division – Public Health Preparedness:

<http://www.sonoma-county.org/heat>

OSHA - Emergency Preparedness Response:

<http://www.osha.gov/SLTC/emergencypreparedness/guides/heat.html>

Environmental Protection Agency - "It's Too Darn Hot" - Planning for Excessive Heat Events:

http://www.epa.gov/aging/resources/factsheets/itdhpfehe_english_2007_10.pdf