

ESP FOCUS

Heat Wave



It can get too hot!

During an average summer, some 200 people across the country die due to heat injuries from exposure to high summer temperatures.

Clearly, heat can be a force, particularly in Southern California, where temperatures exceeding 100 degrees in the suburban valleys and 110 degrees in the low desert areas are not uncommon during the summer and fall. In the summer of 1999, high temperatures in the desert and mountain areas of Imperial and San Diego counties claimed the lives of at least 29 people.

Heat-wave emergencies can strike very quickly. In 1995, for example, the city of Chicago's medical examiner received reports regarding the first heat-related fatalities at 9 p.m. on a Friday night. By 8 a.m. the following morning, an additional 87 people had died. These deaths were caused directly by the heat. It's uncertain, however, how many more people with heart conditions died sooner because of the heat.

Exposure to sunlight is a mixed blessing. Although sun is necessary for life, exposure to ultraviolet (UV) radiation is potentially dangerous and can damage the skin. Varied burns result from prolonged exposure to UV rays, but some people also may burn from very little exposure. UV rays can significantly keep the skin from compensating for the excess heat.

Overexposure to heat or excessive exercise in the heat also can cause other injuries. The severity of such injuries increases with age; heat cramps in a younger person may be heat exhaustion in a middle-aged person, but may be heatstroke in an elderly person. This occurs because the person has not adapted to the heat and is unable to adjust to the changes in the body.

The reverse side of this *Focus Sheet* offers recommendations designed to help you avoid heat-related death and injury wherever you live, work or play.

Each month, ESP will examine a different hazard that could affect Californians and offer suggestions on how to reduce its impacts. These hazards are not limited to the month featured in the ESP Focus Sheet and can occur at any time.

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A U G U S T

Heat Conditions, Symptoms and First Aid

What you might see in a heat injury

1. Sunburn is usually a first-degree burn that involves just the outer surface of the skin. Symptoms include redness and pain. Severe cases may cause swelling, blisters, fever of 102 degrees or above and headaches.

First Aid: Use ointments, as well as cool baths or compresses, for less severe cases. Don't break the blisters; if blisters do break, use a dry germ-free dressing. In severe cases consult a physician. Drink plenty of water.

2. Heat cramps often are related to dehydration. Symptoms include increased sweating with painful muscle spasms of the arms, legs and occasionally the abdomen.

First Aid: Remove the victim from the hot environment. Apply pressure on or gently massage the spastic muscles to relieve spasms.

3. Heat exhaustion is the inability to sweat enough to cool yourself. Symptoms include fatigue, weakness, dizziness, nausea or vomiting as well as cold, clammy, pale, red or flushed skin. A marked body temperature rise will not occur.

First Aid: Remove the victim from the heat. Lay the victim down and loosen the clothing. Apply cold compresses and cool the body by fanning the victim or placing the victim in a cool environment. Consult a physician if vomiting continues.

4. Heatstroke occurs when the body stops sweating but the body temperature continues to rise. Symptoms include visual disturbances, headache, nausea, vomiting, confusion and, as the condition progresses, delirium or unconsciousness. The skin will be hot, dry, red or flushed even under the armpits. This condition is a severe medical emergency that could be fatal.

First Aid: Consult a physician immediately or call 9-1-1. Remove clothing and place victim in a cool environment, sponge the body with cool water or place the victim in a cool bath. Continue the process until temperature decreases. DO NOT PROVIDE FLUIDS to an unconscious victim.

Preventing Heat Injuries

What you can do to prevent heat injuries

- Avoid the sun from 10:00 a.m. to 3:00 p.m. when the burning rays are strongest.
- Reduce physical activity.
- Wear a wide-brimmed hat and light colored, lightweight, loose-fitting clothes when you're outdoors. This type of clothing reflects heat and sunlight, which helps you maintain a normal body temperature.
- Avoid sudden changes of temperatures, (i.e., air out a hot car before getting into it).
- Avoid hot, heavy meals that include proteins. They increase your metabolism and water loss, and raise your body's natural way of cooling.
- Set your air conditioning thermostat between 75 and 80 degrees. If you don't have an air conditioner, take a cool bath or shower twice a day and visit air-conditioned public spaces during the hottest hours of the day.
- Drink plenty of fluids even if you aren't thirsty. Eight to 10 glasses of water a day are recommended. Drink even more if you are exercising or working in hot weather.
- Do not drink alcohol or caffeine since they are diuretics (i.e., promote water loss).
- Use a sunscreen with a sun protection factor (SPF) of at least 15 if you need to go out in the sun.

Extracted and adapted from "Heat Illness Prevention," American College of Sports Medicine, Indianapolis, IN.

GETTING IT DONE IN 2001 PREPARING FOR ALL HAZARDS



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