

Collaborative Healthcare Urgency Group

A.R.M.E.D. TIP SHEET

Vol. 1 Edition 8

Heat Emergencies

What's the Problem?

More people in the United States die from extreme heat exposure than from hurricanes, lightning, tornadoes, floods, and earthquakes combined. During 1979 to 1999, 8,015 heat-related deaths occurred in this country. Heat illnesses include heat cramps and heat rash with the more severe conditions of heat exhaustion and heat stroke (hyperthermia). Heat exhaustion can develop after prolonged exposure to high temperatures and inadequate or unbalanced replacement of fluids.

Warning signs of heat exhaustion include paleness, muscle cramps, fatigue, weakness, dizziness, headache, nausea or vomiting, and fainting. The skin may be cool and moist; sweating may or may not occur. The pulse rate will be fast and weak, and breathing will be fast and shallow. If heat exhaustion is not treated, it may progress to 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. Warning signs of heat stroke vary but may include the following: an extremely high body temperature (above 103°F); red, hot, and dry skin (no sweating); rapid, strong pulse; throbbing headache; dizziness; nausea; confusion; and unconsciousness. Heat stroke is a serious condition; 15% of the people who experience heat stroke are at risk of dying even with treatment.



Who's at Risk?

Anyone exposed to high temperatures for a sustained period of time is at risk for heat-related illness or death. At greater risk are the very young, the elderly, and people with chronic health conditions. Obesity, fever, dehydration, heart disease, mental illness, poor circulation, and sunburn are other risk factors. In addition, certain behaviors can increase the risk for heat-related illness: including alcohol or drug use; taking part in outdoor physical activities in very hot weather; and taking certain medications (e.g., anti-psychotics, tranquilizers, antidepressants, and over-the-counter sleeping pills) that impair the body's ability to regulate its temperature or that inhibit perspiration.

Can It Be Prevented?

Yes. The key is to stay hydrated and cool. Drink plenty of hydrating fluids; spend time in an air-conditioned environment; wear light clothing; reduce activity; and plan outdoor activities for the cooler parts of the day. Electric fans may provide some comfort, but when the temperature is in the high 90s, a fan will not cool the body. A cool shower or bath, or spending time in an air-conditioned location such as a mall or movie theatre, is a more effective way to cool off.

Doctors or pharmacists can provide information about how health conditions or medications can increase the risk of heat illness. The elderly, disabled, or homebound friends, neighbors, and relatives should be checked on to ensure their safety during heat waves, and children should be closely watched. They should never be left in cars or other enclosed spaces or allowed to play in a confined area that has the potential to become locked, such as a car trunk.

During a heat wave, local organizations should take special care that people who don't have any way to deal with the heat receive help. These people often include the poor and those who are socially isolated from the mainstream, such as some of the elderly and those who cannot speak or read English.

The Bottom Line

Air-conditioning is the number one protective factor against heat-related illness and death. In order to protect themselves from heat-related illnesses, people should:

- ❑ Drink plenty of hydrating fluids;
- ❑ Stay indoors or in an air-conditioned space;
- ❑ Plan outdoor activities for cooler parts of the day; and
- ❑ Take advantage of special community or city activities (air-conditioned community centers open to the public, or public swimming pools that extend their hours of operation).

