

Mandatory Topic:

Heat Stress

Hot weather causes more fatalities than any other weather-related source. Heat waves are rarely given adequate attention, but they claim more lives each year than floods, hurricanes, and tornadoes combined. Heat waves are silent killers. Heatstroke affects both genders equally. However, because many men are exposed to heat in the workforce, the annual death rate is two times higher in men than in women.

In general, the human body cools itself by producing sweat. Sweat evaporating from the skin keeps the body cool. Higher humidity, limited air movement, and wearing protective equipment can reduce evaporation. Less evaporation means less cooling. Frequent intake of liquids is necessary to prevent dehydration from sweat loss. Plenty of cool (50°F–60°F) water or other cool liquids, except beverages with alcohol or high caffeine levels, should be available. Drink small amounts frequently; for example, drink one cup every 20 minutes.

Health and safety problems caused by excessive heat are called heat stress. These conditions range from heat cramps to heat exhaustion to the most serious condition, heat stroke.

- **HEAT CRAMPS** are a warning sign that the body has lost too much salt through sweating. The cramps affect working muscles, such as the legs, arms, and abdomen. Heat cramps may also occur when a person is resting.
- **HEAT EXHAUSTION** is a warning that the body's heat-control mechanism has become overworked. Symptoms include exhaustion, dizziness and/or nausea, pale and clammy skin, a rapid pulse, and low blood pressure. Heat exhaustion may lead to heat stroke if symptoms are ignored.
- **HEAT STROKE** can be fatal. This happens when the body's heat-loss mechanism shuts down. The person stops sweating, and the body temperature rises. The heart pounds, and the skin becomes hot and red. A person suffering from heat stroke needs immediate emergency medical attention.

The best way to treat heat illness is to prevent it:

- Drink water early and often. The body loses water through perspiration, and you need to replace it frequently.
- Experts recommend that you avoid using **alcoholic beverages, coffee, tea, or other beverages with caffeine as fluid replacements.** These types of drinks cause you to lose even more water and salt. ***The best defense is to drink plain water early and often.***
- Use fans to create air movement throughout your work area.

- When possible, take approved and frequent rest breaks. Immediately move to a cooler area if you feel dizzy or become nauseated. Report this to your foreman. Keep an eye on your work partner.
- Dress in light colors. Choose fabrics that let moisture and heat escape. Dress in layers so you can remove outerwear as needed throughout the day.

Watch for signs of heat stress in yourself and your fellow workers. Most of the time, a construction worker may not realize what is happening until heat illness occurs. If signs of heat illness do occur, help the person cool off by moving them to a cool place, fanning them, or soaking them with a cloth dipped in cool water. Give them sips of water ONLY if they are conscious.

REMEMBER: IF YOU SUSPECT HEAT STROKE DUE TO BRIGHT RED, HOT SKIN AND NO SWEATING, CALL FOR EMERGENCY MEDICAL HELP.