

Heat Stress



Who exposed to extreme heat or work in hot environments may be at risk of heat stress. Exposure to extreme heat can result in occupational illnesses and injuries.

For those who at greater risk of heat stress are 65 years of age or older, overweight, have heart disease or high blood pressure, or take medications that may be affected by extreme heat.

Heat Cramps

Heat cramps are [muscle spasms](#) which usually affect the arms, legs, or stomach. Frequently they don't occur until sometime later after work, at night, or when relaxing. Heat cramps are caused by heavy sweating, especially when water is replaced by drinking, but not salt

or potassium. Although heat cramps can be quite painful, they usually don't result in permanent damage. To prevent them, [drink electrolyte solutions](#) such as 100 Plus during the day and try eating more fruits like bananas.

Heat Exhaustion

Heat exhaustion is more serious than heat cramps. It occurs when the body's [internal air-conditioning system is overworked](#), but hasn't completely shut down. In heat exhaustion, the surface blood vessels and capillaries which originally enlarged to cool the blood collapse from loss of body fluids and necessary minerals. This happens when you don't drink enough fluids to replace what you're sweating away.

The **symptoms of heat exhaustion** include: [headache](#), [heavy sweating](#), [intense thirst](#), [dizziness](#), [fatigue](#), [loss of coordination](#), [nausea](#), [impaired judgment](#), [loss of appetite](#), [hyperventilation](#), [tingling in hands or feet](#), [anxiety](#), [cool moist skin](#), [weak and rapid pulse \(120-200\)](#), and [low to normal blood pressure](#).

Somebody suffering these symptoms should be moved to a cool location such as a shaded area or air-conditioned building. Have them lie down with their feet slightly elevated. Loosen their clothing, apply cool, wet cloths or fan them. Have them drink water or electrolyte drinks. Try to cool them down, and have them checked by medical personnel. Victims of heat exhaustion should avoid strenuous activity for at least a day, and they should continue to drink water to replace lost body fluids.

Heat Stroke

Heat stroke is a **life threatening illness with a high death rate**. It occurs when [the body has depleted its supply of water and salt](#), and the victim's body temperature rises to deadly levels. A heat stroke victim may first suffer heat cramps and/or the heat exhaustion before progressing into the heat stroke stage, but this is not always the case. Therefore very important to be able to recognize the signs and symptoms of heat stroke - and to check for them anytime an employee collapses while working in a hot environment.

The **early symptoms of heat stroke** include a [high body temperature \(103 °F / 39.4°C\)](#); [a distinct absence of sweating \(usually\)](#); [hot red or flushed dry skin](#); [rapid pulse](#); [difficulty breathing](#); [constricted pupils](#); any/all the signs or symptoms of heat exhaustion such as [dizziness](#), [headache](#), [nausea](#), [vomiting](#), or [confusion](#), but more severe; [bizarre behavior](#); and [high blood pressure](#). **Advance symptoms** may be [seizure or convulsions](#), [collapse](#), [loss of consciousness](#), and a [body temperature of over 108° F / 42.2°C](#).

Anyone can suffer a heat illness, but by taking a few simple precautions, it can be prevented:

- [Condition yourself](#) for working in hot environments - start slowly then build up to more physical work. Allow your body to adjust over a few days.
- [Drink lots of liquids](#); don't wait until you're thirsty. By then, there's a good chance if you're already on your way to being dehydrated. Electrolyte drinks are good for replacing both water and minerals lost through sweating. [Never drink alcohol, and avoid caffeinated beverages](#).
- Take a break if you notice you're getting a headache or you start feeling overheated. Cool off for a few minutes before going back to work.
- Get enough sleep at night.

