



# Toolbox Safety Session: HEAT STRESS

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Heat stress can be a killer on the jobsite. Deaths from heat-related issues between 2005 and 2009 rose to higher rates than any others observed during any other 5-year periods in the past 35 years. Outside of the direct consequences such as heat stroke, heat stress can cause incidents due to loss of focus or excessive fatigue on the job.

## Heat-Related Illnesses

(Source: [www.WebMD.com](http://www.WebMD.com))

**Heat Cramps:** Are painful, brief muscle cramps. Muscles may spasm or jerk involuntarily. Heat cramps can occur during exercise or work in a hot environment or begin a few hours later.

**Heat Exhaustion:** There are two types of heat exhaustion. 1. Water depletion- Signs include excessive thirst, weakness, headache, and loss of consciousness. 2. Salt depletion- Signs include nausea and vomiting, muscle cramps, and dizziness.

**Heat Stroke:** Heat stroke is the most serious heat-related illness. Heat stroke can kill or cause damage to the brain and other internal organs. Heat stroke results from prolonged exposure to high temperatures – usually in combination with dehydration – which leads to failure of the body’s temperature control system.

## Medical Response

If anyone is displaying symptoms of a heat-related illness, it is important to get them the proper medical attention they need before the problem turns into heat stroke. For people displaying symptoms of heat exhaustion, have them stop work and get to a shaded area. The affected person needs to consume water or electrolyte replacing sports drinks. The person should not return to work for the rest of the day.



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Anyone who is displaying symptoms of a heat stroke, immediate medical attention is needed. Delaying calling 911 could result in irreversible injuries or death. Symptoms of heat stroke include fainting, throbbing headache, dizziness, lack of sweating, vomiting, or behavioral changes such as confusion. The person should be cooled down immediately in a shaded area or indoors. DO NOT put ice cold water on the victim as this can cause shock. Use cool water to lower the body temperature of the victim. Remove any unnecessary clothing and fan the victim until medics arrive.

## Safe Work Practices to Prevent Heat-Related Illnesses

- Allow for acclimatization to a hot environment before any strenuous work begins. It takes roughly two weeks for an individual to acclimate to a hot environment.
- Drink plenty of water during strenuous activities, especially in hot environments. An average person sweats between roughly 27 oz. to 47 oz. per hour during intense labor. To put that amount into perspective, an average water bottle holds 16.9oz.
- Take frequent breaks in the shade or indoors where there is AC.

## Summary

Take heat stress seriously. Know the signs and symptoms of heat stress. Have a plan to get the proper medical attention for any individual displaying symptoms of heat stress. Dealing with heat stroke especially, it may mean the difference between life and death.