

Heat Stress toolbox talk

A simple, 5 minute outline of what to cover in a toolbox talk on Heat Stress.

While heatwaves are making news in 2021, construction workers and other professionals are exposed to heat stress risks every summer. Heat is a silent killer in the workplace and on the job site, causing people to suddenly collapse and fail to recover at the hospital.

According to the Bureau of Labor Statistics, heat injuries affected nearly [2,500 workers in 2019](#). Preparing for the heat starts before the workday begins.

Staying hydrated and wearing the right clothing can go a long way in protecting workers from heat stress. However, you may need to change your work patterns as well during heat waves where temperatures peak.

What Heat-Related Illnesses are Common?

Heat does more than just make you sweat, which is an essential part of staying cool. When your body's natural cooling abilities are overwhelmed by heat and humidity, your internal temperature rises. This can cause mild to serious heat related illnesses, or HRI.

Heat Exhaustion

Heat exhaustion is less serious than a heat stroke, but it still requires treatment and attention to avoid permanent damage. It occurs because you have either become dehydrated or are low on sodium (salt). The signs include:

- Nausea
- Headache, especially coming on suddenly
- Pale or clammy skin
- Muscle cramps



- Dizziness
- Fainting
- Vomiting

Move out of the sun and rest any time you experience early symptoms of heat exhaustion. An upset stomach tends to occur when you drink plenty of water but don't have enough salt and other electrolytes in your system. Salt tablets, salty snacks, and sports drinks can all help to provide enough sodium to keep heat exhaustion at bay.

Heatstroke

Heatstroke is a more serious HRI that can kill. However, even non-fatal cases of heatstroke can still leave you with permanent organ damage, including to the brain.

You don't have to show any warning signs of heat exhaustion before progressing to this stage. It can come on suddenly, especially if you are dehydrated, impaired in your ability to sweat, or are exposed to sudden swings in temperature. The symptoms of heatstroke are:

- A lack of sweating despite the heat
- Bright red skin that is hot to the touch
- Flushed appearance in the face and chest
- Disorientation, confusion, or anger
- Extreme headache that may cause visual distortion
- Higher than usual body temperature
- Seizures or muscle spasms
- Partial or full loss of consciousness.

Only immediate emergency treatment can save the life of someone experiencing heatstroke. Call 911 at the first sign of this condition and follow their instructions to safely begin cooling the worker down until an ambulance arrives.

Heat Cramps

Heat cramps are muscle cramps caused specifically by the dehydrating and salt-depleting effects of hot weather. As you sweat, your muscles lose the water and salt they need to perform. Even drinking plenty of water and sports drinks will only replenish your system so quickly.



Working too hard or too quickly could leave you experiencing a muscle cramp that could be dangerous in a high-pressure construction or manufacturing setting. Taking breaks may slow the workflow slightly, but it will keep work going far smoother than stopping to deal with heat exhaustion or cramps.

The Importance of Clothing

Clothing and personal protection equipment (PPE) play a major role in HRI on the job site. Many workers adapt to the hazards or discomfort of the work by wearing long-sleeved shirts and heavily reinforced work pants.

These layers all trap heat and make it harder to cool yourself while working. PPE also tends to trap heat and concentrate the risk of an HRI, even when the helmets, respirators, and other equipment are designed for hot weather use. It may be necessary to use more workers on shorter shifts to give everyone more breaks from wearing PPE as they rotate in and out of the work area.

Adapting Your Work Patterns to Extreme Heat

Other adaptations to work patterns can greatly reduce HRI risk for construction workers. First, set up temporary shade structures or concentrate work areas in shaded areas. Don't cut materials or assemble parts in the sun if the shade is available. Pop-up worksite cabins and offices that include air-conditioning are recommended as break areas.

These areas can save lives when workers are overcome with heat exhaustion or heat stroke, but they should also be available regularly for heat stress prevention. Finally, try to schedule work so that the hottest hours of the day see as little work as possible. Starting before sunrise or even moving to an overnight schedule can make all the difference in a hot climate.

Don't let heat stress become a silent danger on your work site. With a generous supply of water, a steady source of salt and other electrolytes, and a place to get out of the heat, construction work can safely continue through the summer.

