



# Robinson Builders Mart Safety Bulletin

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June's Safety Tip for the Jobsite



## HOW TO RECOGNIZE AND MANAGE THE COMPLEXITIES OF HEAT STRESS

**BUILDER contributor Nicole Moyen outlines the symptoms of two important heat-related injuries and how to detect and manage the risks on jobsites.**

By Nicole Moyen



As we approach summer construction season, residential workers should re-educate themselves on heat-related injuries and illnesses that can happen to employees when working in warm conditions. Many workers and supervisors have experienced or witnessed changes in their physical abilities and limitations, caused by high-temperature environments. It's important to understand what to look for and the differences between heat-related effects on the body, in order to detect and manage the health risks.

### Heat Exhaustion

When your employees experience goosebumps or chills, light-headedness, nausea, and/or are feeling weak or more fatigued than usual, it's likely they are experiencing heat exhaustion. Heat exhaustion is typically the point where the cardiovascular system—the heart and blood vessels—can no longer support the work being done by the person. His/her heart rate will likely be higher when working in a hot (vs. a cool) environment. But heart rate can only increase so much, because the body only has a finite amount of blood that can be pumped by the heart to the working muscles for energy and to the skin to get rid of body heat. When this “maximum” point is reached in the cardiovascular system, a person feels symptoms of heat exhaustion: weakness, fatigue, faint/light-headedness, unusually hot skin, excessive sweat, and difficulty working or exercising.

Ideally, a worker has been trained to read the signals of their body when these symptoms occur, and knows the importance of stopping work to cool off and drink water to allow body temperature to come back down to normal. However, many workers may push through these feelings in order to stay productive and keep the job moving. This is the time when a supervisor must intervene to prevent heat-related injury or even a worker fatality.

An intervention means work stops immediately, and the worker is directed to a shady or air-conditioned shelter. Removing any extra clothing will allow the employee to cool down faster, and if the person is feeling dizzy or light-headed/faint you can elevate their feet to help return blood to the brain and heart. Use ice-cold towels placed on the body to cool it down, and encourage the worker to drink plenty of fluids, especially water, to boost hydration to a healthy level.

With these remedies, the worker should start to feel better within 10 to 15 minutes, and can safely return to work. However, it's important to ease back into work gradually so as not to immediately disturb the care that's just been given to the body. Make sure the affected employee slows down his/her work pace and takes extra breaks during the work day, even if they aren't brought on by heat-related symptoms. This will help the person avoid another episode of heat exhaustion or other heat-related injuries.

### Exertional Heat Stroke

Exertional heat stroke (EHS) is different from heat exhaustion. EHS should be considered a serious medical emergency. As such, if not treated properly, EHS can result in death. The good news is, if you understand EHS and take the proper prevention and monitoring steps, EHS is preventable. It is important to remember that heat exhaustion does not precede EHS. That means that heat exhaustion and EHS are two separate things: someone doesn't necessarily need to experience heat exhaustion before getting EHS. Often, EHS can come about very suddenly,

**without any signs or symptoms. Exertional heat stroke is diagnosed when:**

- The worker's core body temperature is greater than 104°F or 40°C. The only real way to differentiate between heat exhaustion and EHS is to measure core body temperature with a rectal or esophageal probe.
- The worker's central nervous system is experiencing dysfunction. When this happens, the person may be hallucinating, experiencing behavior changes such as aggressiveness, irritability, confusion, and/or irrational behavior. They may also feel weak or unable to continue working. The person may even collapse on the job or faint.
- The worker may also experience vomiting, hot and sweaty skin, and fatigue, which are the symptoms of heat exhaustion, but the additional behavior changes noted above are the key clues that the person needs emergency cooling of the body, plus additional medical attention.

### **Preventing Heat Exhaustion and EHS**

**Now that you understand the two most common heat ailments that can happen on the job, it's time to take stock of how you are preventing and managing them to keep your team safe from heat's harm.**

- Encourage workers to use a buddy system while on the job. Buddies take on the responsibility of checking on specific co-workers' well-being. Most teams already have informal buddy relationships that have formed, so it's easiest to simply ask them to add this more formal "check up" to their existing collaboration. Buddies should talk to each other several times during the work day—not just while on break together. If one person notices something strange or out of character with the other, the observer should alert supervisors and immediately get the person to an emergency cooling station on-site.
- Educate workers on the signs and symptoms of heat stress. Encourage them to pay attention to their own symptoms and what their body may be telling them. Let employees know it is dangerous to "push through" the situation by being "tough" under extreme circumstances. It's not productive to the job. Heat stress actually slows the work pace and increases errors. In the end, a worker that passes out or must go to the hospital isn't useful to himself/herself or the employer. Working safely is the ultimate goal, not speed or competition, or testing the limits of the human body.
- Honor and recognize when a worker is vocal about symptoms. Take all comments about changes in the body seriously and let them take a break, find a cooler place, and drink water to recover before it's too late.
- Investigate additional equipment that can be used on site, such as smart personal protection equipment (PPE) that monitors and measures body indicators such as core body temperature, and sends a signal to both the worker and the supervisor that a safe heat threshold has been crossed, and a break and/or treatment are necessary.

### **Treating Heat Exhaustion and EHS**

**The symptoms detailed above are cues for both the worker and the supervisor to stop the individual from working, get them to shade or air conditioning to rest, and encourage them to drink fluids. It is also important to check on the person every five minutes to make sure they are recovering and feeling better. If, after 10 to 15 minutes, their symptoms have subsided, they may return to work. If not, continue treatment to eliminate the symptoms or seek professional medical attention for the worker if symptoms don't subside.**

**If symptoms of EHS are present, immediately call on medical professionals by dialing 911. While waiting for EMTs to arrive, help the worker cool down as quickly as possible. Ideally, there will be ice bath supplies on-site to quickly cool the worker. Ice baths are the most effective way to treat EHS. If not, rotate cold compresses around the body to help cool the worker down. The most important thing to remember is to not leave the worker's side while recovery begins and before help arrives.**

**Heat-related worker injuries are on the rise. If you haven't paid close attention to the nuances of the signs and symptoms of heat injuries and illnesses, along with the ways to treat affected employees, you are putting everyone at risk. Be knowledgeable and proactive to keep your teams safe while getting the job done, especially during the high heat of the summer.**

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