

Hazards of Heat Stress

June 8, 2023 By Karen Sieg, Circle Safety and Health Consultants, LLC

As the summer heat sets in, it is vital to understand the dangers of heat stress and how to prevent serious health issues. If your company performs work outdoors or in hot work areas, your employees are at risk! To keep your employees safe, your company must provide heat stress training, monitoring, and personal protective equipment.

High temperatures are not the only factors that contribute to heat stress. High humidity, direct sunlight, and limited air movement can increase risks.

What are the signs of heat stress?

A person suffering from heat stress may be confused or even too disoriented to know they're suffering. It is important that workers keep an eye on each other and look out for the following signs:

- Pale or flushed face
- Skin that is hot (usually dry), red, or spotted
- Muscle cramps, from the loss of sodium
- Vomiting
- A body temperature over 105°F
- Fainting
- Seizures
- Headache
- Dizziness
- Fast heartbeat

Heat stress and illness are not necessarily progressive. A worker can bypass exhaustion and go straight into heat stroke. Recognizing signs early can save lives.

How to treat heat stress symptoms?

If you see someone with signs of heat stress, have them sit or lie down in a cool, shady area. Apply cool wet cloths or soak their clothes in water, and if awake, give them water. Avoid applying ice directly to the skin or allowing the person to become so cold that they start to shiver. Stay by their side; do not leave the person alone. If there is no improvement, you must seek medical attention. OSHA recorded 20 worker fatalities due to heat in 2022.

How to prevent heat stress?

Heat stress can be prevented through a number of measures. Ensure cool drinking water is provided near work areas and encourage workers to drink before beginning work, after lunch, and every 15-20 minutes during work. OSHA recommends one cup of water every 15 minutes. Avoid caffeinated drinks and those high in sugar.

Acclimatization is one of the most important factors to prevent heat stress. Heat acclimatization is the improvement in heat tolerance that comes from gradually increasing the intensity or duration of work performed in a hot setting. The best way to acclimatize a worker to the heat is to increase the workload performed in a hot setting gradually over a period of 1–2 weeks.

While new workers are the most at risk of heat illness, they aren't the only ones. If workers have been away for a week or more, they may lose their heat acclimatization and will need to be reacclimatized to the heat by having their workload increase gradually when they return. If possible, schedule heavier work tasks for the cooler parts of the day.

Here are some examples of medications that can increase your risks for heat-related illnesses:

- **Beta-Blockers (Propranolol, Nadolol, and Sotalol)**
- **Diuretics (Hydrochlorothiazide, Furosemide, Torsemide, and Bumetanide)**
- **Parkinson's Disease medications (Benztropine, Trihexyphenidyl, and Entacapone)**
- **Antidepressants (Amitriptyline, Doxepin, and Imipramine)**
- **Antipsychotic medications (Thiothixene, Haloperidol, and Chlorpromazine)**
- **Antispasmodics/Overactive bladder medications (Tolterodine and Oxybutynin)**
- **Antispasmodics/Gastrointestinal medications (Promethazine, L-Hyoscyamine, and Atropine)**

Common products that increase risks are:

- **Caffeine containing products like coffee and energy drinks**
- **Caffeine containing medications like Butalbital/Acetaminophen/Caffeine**
- **Cough and Cold Preparations (medicines that contain decongestants and antihistamines like Diphenhydramine and Chlorpheniramine)**
- **Alcohol containing products like cough and cold liquids and alcoholic beverages**

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