

Site Safety and Health

Heat-Related Illness Overview

Overview

This Safety Training Talk is appropriate for general industry and construction employers. Workers die from heat stroke every year. The most extreme heat-induced illnesses are heat exhaustion and heat stroke.

- If not treated, heat related illnesses can lead to mental confusion, seizures, or even death.
- When heat stroke doesn't kill immediately, it can shut down major body organs causing acute heart, liver, kidney and muscle damage, nervous system problems, and blood disorders.
- Workers suffering from heat exhaustion are at greater risk for accidents, since they are less alert and can be confused.

Causes of Overheating:

- Hot weather.
- Humid weather.
- Exposure to sun.
- Heat generated during physically active and hard work that the body cannot dissipate.

If workers are new to working in the heat or returning from more than a week off, and for all workers on the first day of a sudden heat wave, implement a work schedule to allow them to get used to the heat gradually.

How to protect your employees — Instruct them to:

- Know about heat-induced illnesses.
- Learn the signs and symptoms of heat-induced illnesses and what to do to help themselves and/or a fellow employee.
- Use the buddy system (work in pairs).
- Drink plenty of cool water (one small cup every 15-20 minutes).
- Wear light, loose-fitting, breathable (like cotton) clothing.
- Avoid caffeine and alcoholic beverages. These beverages make the body lose water and increase the risk for heat illnesses.
- Avoid eating large meals before working in hot environments.

How to protect your employees — Allow them to:

- Slowly build up tolerance to the heat and the work activity (usually takes about two weeks).
- Perform the heaviest work in the coolest part of the day.
- Take frequent, short breaks in cool shaded areas.

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Employees are at increased risk when they:

- Take certain medication. Have employees check with their doctor, nurse, or pharmacy and ask if any medicines they are taking affect them while working in hot environments.
- Have had a heat-induced illness in the past.
- Wear personal protective equipment (like respirators or protective suits).

Employee Training

There are no specific training requirements in the OSHA regulations for employee exposure to hot weather. However, OSHA requires that you must instruct employees in the recognition and avoidance of unsafe conditions and to control or eliminate any hazards or other exposure to illness or injury.

A petition delivered to OSHA calls on the federal government to establish protections for outdoor and indoor workers who are exposed to extreme heat. The letter urges the implementation of a national heat stress standard, and points out that in the absence of national protections, three states already have implemented some form of protective heat standards for their workers.

The petition was organized by four organizations and collected more than 60,000 signatures. It seeks to reinforce a July 2018 petition, in which more than 130 organizations requested OSHA implement a national heat protection standard

Training Tips

- Teach in a language that your trainees understand. If a trainee's vocabulary is limited, account for that limitation. Translators may be needed.
- Using the employee handout, review with employees the symptoms of heat-related illnesses and ways employees can protect themselves.
- Explain that employees should check with their doctor if they are taking medications or have any medical condition, to see if working in hot environments would have adverse affects.
- Mention that having had a previous incident of heat-induced illness increases the odds that an individual will suffer another episode in the future.

Where to Go for More Information

- 29 CFR 1910.151 — Medical services and first aid.
- 29 CFR 1926.50 — Medical services and first aid.

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Interactive feature online

Heat-Related Illness Overview Handout

Overview

When your body is unable to cool itself through perspiration, serious heat illnesses may occur. The most severe heat-related illnesses are heat exhaustion and heat stroke. If actions are not taken to treat heat exhaustion, it could progress to heat stroke and could be deadly.

Heat Exhaustion Symptoms:

- Headaches, dizziness, lightheadedness, or mental confusion.
- Weakness, mood changes, pale and clammy skin, and/or nausea.
- Decreased and dark colored urine.
- Fainting or passing out.

Heat Stroke Symptoms:

- Dry, pale skin with no sweating, or hot red skin.
- Mood changes or mental confusion.
- Seizures, fits, fainting, or passing out.

With heat exhaustion you sweat a lot, but with heat stroke you stop sweating and your skin gets red.

Symptoms of heat stroke are more visible to others.

You Are at Increased Risk When You:

- Aren't used to working in heat or doing heavy work.
- Are new to working outdoors.
- Are not physically fit or are overweight.
- Drink alcohol or take drugs (illegal drugs or prescription medicine).
- Must wear heavy, dark, or tight clothing, or use personal protective equipment.
- Have previously experienced heat - related symptoms.

You Can Prevent Difficulties From Heat Related Illnesses By:

- Learning the signs and symptoms of heat-induced illnesses and how to help yourself or a fellow employee who is exhibiting those signs.
- Drinking plenty of cool water during hot weather. Avoid caffeine or alcoholic beverages, as they make the body lose water and increase the risk for heat illnesses.
- Wearing light, loose-fitting, breathable clothing (such as clothing made from cotton). Take short, frequent breaks in areas out of or away from the heat.
- Using the buddy system, so that one person can check on the other.

Reserved