

Spot The Safety Violation: Dress Properly to Avoid Cold Stress



Does this worker look properly dressed for the weather conditions? What should he be wearing?



With winter on the horizon, extreme cold, high winds and snow are on their way if they haven't already arrived in your area. So workers who work outside are at risk of cold stress and should be properly prepared to work in these weather conditions.

For example, the worker in this picture should be wearing gloves to keep his hands warm. He should also have on a warm jacket, not just what appears to be a sweatshirt. And although a baseball-style cap is better than nothing, a warmer hat that covers his ears would be a better bet.

Cold Stress 101

Cold stress—that is, exposure to low temperatures, wind and/or snow/freezing rain—can lead to several conditions including frostbite and hypothermia, sometimes called exposure. Hypothermia occurs when the body can no longer produce more heat than it's losing.

Wind, wet and cold are the key factors that lead to hypothermia. Wind can chill the body. Water rapidly absorbs body heat. In fact, wet clothing is a common cause of hypothermia.

The symptoms of hypothermia vary depending on its degree:

Mild Hypothermia

- Bouts of shivering
- Grogginess and muddled thinking
- Breathing and pulse are normal

Moderate Hypothermia

- Violent shivering or shivering stops
- Inability to think and pay attention
- Slow, shallow breathing
- Slow, weak pulse

Severe Hypothermia

- Shivering has stopped
- Unconsciousness
- Little or no breathing
- Weak, irregular or non-existent pulse

Here are some tips for how workers can protect themselves from hypothermia and other cold stress related illnesses:

- Wear a warm hat. Most body heat is lost through the head.
- Wear proper clothing that's dry, and water- and wind-resistant.
- Wear layers that trap warm air but not perspiration. For example, clothing made out of wicking material that pulls moisture off the skin is a good choice, especially for base layers. Wool is ideal because it stays warm even when wet. The outer layer should trap heat in and keeps water or dampness out.
- Protect your feet and hands. Wear loose waterproof boots. If the boots have felt liners, carry an extra pair to replace damp ones. Mittens warm the hands more effectively than gloves.
- Prevent dehydration and exhaustion. Drink plenty of fluids and avoid alcohol, coffee, tea and tobacco. Pace yourself when doing vigorous activity.
- Stay fit through good physical conditioning and good nutrition. People who

are fit are less susceptible to hypothermia. And don't let yourself become weakened through fatigue.

- Try to stay in a heated environment, but not so hot as to cause excessive sweating. You risk hypothermia when you try to cool down by leaving a hot environment for a cool one.
- Eat high energy food, such as nuts and raisins.

The OHS laws require employers to take steps to protect workers exposed to cold stress'whether they work outside or in other conditions that have low temperatures, such as in a walk-in freezer'such as by implementing a cold stress policy and cold exposure control plan.

You should educate workers on the signs of hypothermia, frostbite and other cold stress related illnesses, such as by giving them this handout. You should also train them on:

- Recognizing signs and symptoms of cold stress illnesses and injuries;
- Cold stress prevention, including proper clothing habits and safe work practices;
- Factors that can increase the risk of cold stress injuries and illnesses, such as caffeine or alcohol consumption and direct contact with metal surfaces;
- Increased risks associated with handling materials and equipment in extreme temperatures; and
- Proper first aid response and emergency procedures for responding to cold-related injuries and illnesses.

And if workers must drive on the job, use this checklist to make sure their vehicles have adequate winter survival kits in case they get stranded.