

OHBA Safety Pages: Working Safely in Cold Weather

Introduction:

Winter has arrived in Oregon with colder temperatures alongside the rain and snow. Anyone working in a cold environment may be at risk of cold stress. Working in cold conditions isn't just uncomfortable, it can be dangerous. Frostbite, numbness, dehydration, and hypothermia are real concerns from chilly outdoor weather. If you're working outdoors this winter, be aware of the dangers and stay safe.



Main Message:

How Cold is Too Cold?

What constitutes extreme cold, and its effects can vary across different areas of the country. In regions that are not used to winter weather, near freezing temperatures are considered "extreme cold." A cold environment forces the body to work harder to maintain its temperature. Whenever temperatures drop below normal and wind speed increases, heat can leave your body more rapidly.

Wind chill is the temperature your body feels when air temperature and wind speed are combined. For example, when the air temperature is 40°F, and the wind speed is 35 mph, the effect on the exposed skin is as if the air temperature was 28°F.

Cold stress occurs by driving down the skin temperature and eventually the internal body temperature (core temperature). This may lead to serious health problems, and may cause tissue damage, and possibly death.

Cold Stress Risk Factors

Some of the risk factors that contribute to cold stress are:

- Wetness/dampness, dressing improperly, and exhaustion
- Predisposing health conditions such as hypertension, hypothyroidism, and diabetes
- Poor physical conditioning

Cold Stress Signs and Symptoms

- Cold stress can be identified in a number of ways, but a few of the most common signs to watch for are dehydration, numbness, shivering, frostbite, and arguably the most dangerous, hypothermia.
- Of course, if there is a noticeable drop in your ability to use your hands and fingers, due to numbness or shivering, cold stress may be occurring.
- Loss of mobility in your hands is a common effect of cold stress and can result in safety hazards to you and your coworkers, especially if you are unable to grip a tool or properly handle the materials you're working with.
- Shivering is another of the body's responses to the cold and a potential indicator of the onset of cold stress. Be on guard if you begin to shiver.
- Shivering is the body's protective mechanism that increases the rate of your body's metabolism. This is a solid sign that hypothermia may be at the beginning stages.

Tips for Working Safely in Colder Weather

1. STAY WELL NOURISHED BY EATING AND DRINKING ENOUGH

Make sure to drink enough fluids, as you dehydrate faster in cold weather conditions. Dehydration causes headaches, dizziness and fatigue, and it's important to stay alert outdoors. Eating enough food during the day, especially fats and carbohydrates, is also important. Your body uses those nutrients as energy to stay warm in cold temperatures.

2. STAY WELL RESTED

Working outdoors can be challenging and increases risks to your safety. Make sure you're getting enough sleep to stay alert on the job when conditions are more dangerous.

3. PLAN BREAKS FROM THE COLD

Just like you need to take breaks from your work throughout the day, your body needs to take breaks from the cold. Plan warm-up times throughout your day to avoid numbness and shivers.

4. STAY DRY

Damp clothing can quickly drop your body temperature. It's more important than ever to stay dry in the cold. Wear a moisture-wicking base layer to draw away sweat as you work. Wear waterproof gear as an outer shell to prevent your under layers from getting wet. Remove any wet clothing immediately.

5. DRESS FOR THE CONDITIONS

Dressing in layers is key, as it not only keeps you warm but allows you to adjust to changing temperatures. Proper gloves, socks and footwear are essential. Choose headwear that keeps your head and ears warm. Your body loses 40% of its heat through the head.



Fast Fact:

What is immersion/trench foot?

- *Trench Foot* or immersion foot is caused by prolonged exposure to wet and cold temperatures. It can occur at temperatures as high as 60°F if the feet are constantly wet. Non-freezing injury occurs because wet feet lose heat 25 times faster than dry feet. To prevent heat loss, the body constricts the blood vessels to shut down circulation in the feet. The skin tissue begins to die because of a lack of oxygen and nutrients and due to the buildup of toxic products.
- Redness of the skin, swelling, numbness, blisters are all symptoms of trench foot.
- The proper medical response for trench foot is to call 911 immediately in an emergency; otherwise seek medical assistance as soon as possible. Remove the shoes, or boots, and wet socks, and then dry and cover the feet.



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Employer: _____ Project: _____

Date: _____ Time: _____ Shift: _____

Number in crew: _____ Number attending: _____

Safety or Health issues discussed. Include recent accident investigations and hazards involving tools, equipment, the work environment, work practices and any Safety or Health recommendations:

Follow up on recommendations from last safety meeting:

Record of those attending:

Name: (please print)	Signature:	Company:
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Supervisor's remarks: _____

Supervisor: _____ (Print) _____ (Signature)