Protecting Workers from Cold Stress This Winter



During the winter, workers who work outdoors may be exposed to cold temperatures, high winds, icy conditions and snow or sleet. (Some workers, such as those who work in freezers, can be at risk year-round.) And cold stress can cause dangerous conditions, such as frostbite and hypothermia.

So how do you protect workers from cold stress' Here's some advice from OSHA.

Common Types of Cold Stress

Hypothermia

- Normal body temperature drops to 95øF (35øC) or less
- **Mild Symptoms:** alert but shivering
- **Moderate to Severe Symptoms:** shivering stops; confusion; slurred speech; heart rate/breathing slow; loss of consciousness; death

Frostbite

- Body tissues freeze, especially hands and feet. Can occur at temperatures above freezing, due to wind chill. May result in amputation
- **Symptoms:** numbness, reddened skin develops gray/white patches, feels firm/hard, and may blister

Trench Foot (also known as Immersion Foot)

- Non-freezing injury to the foot, caused by lengthy exposure to wet and cold environment. Can occur at air temperature as high as 60øF (15.5øC), if feet are constantly wet
- **Symptoms:** redness, swelling, numbness, and blisters

To protect workers from cold stress and the above conditions, employers should:

- Train workers on cold stress hazards and prevention.
- Provide engineering controls, such as portable heaters
- Gradually introduce workers to the cold; monitor workers; schedule breaks in warm areas

To protect themselves and others, workers should:

- Know the symptoms; monitor themselves and co-workers
- Drink warm, sweetened fluids (no alcohol)
- Dress properly:

”Layers of loose-fitting, insulating clothes

”Insulated jacket, gloves and a hat (waterproof, if necessary)

”Insulated and waterproof boots

What to Do When a Worker Suffers from Cold Stress

For Hypothermia:

- Call 911 immediately in an emergency
- To prevent further heat loss:

”Move the worker to a warm place.

”Change to dry clothes.

”Cover the body (including the head and neck) with blankets, and with something to block the cold (e.g., tarp, garbage bag). Do **not** cover the person’s face

- If medical help is more than 30 minutes away:

”Give the worker warm, sweetened drinks if alert (no alcohol).

”Apply heat packs to the armpits, sides of chest, neck, and groin.

For Frostbite:

- Follow the above recommendations for hypothermia
- Don’t rub the frostbitten area
- Avoid walking on frostbitten feet
- Don’t apply snow/water and don’t break blisters
- Loosely cover and protect the area from contact
- Don’t try to rewarm the area unless directed by medical personnel to do so

For Trench (Immersion) Foot:

- Remove the worker’s wet shoes/socks; air dry (in warm area); keep affected feet elevated and avoid walking. Get medical attention

Here are additional resources from the OHS Insider that you can use to protect your workers from cold stress, including:

- A frostbite risk and control chart
- Spot the Safety Violation: Dress Properly to Avoid Cold Stress
- A handout on cold stress
- Information on protecting workers from cold stress through a cold exposure control plan, including a model plan
- Model Cold Stress Policy
- Cold Stress Checklist
- Cold Work Warm-up Break Schedule.