



CLEVELAND INTEGRITY SERVICES, INC.

Working in the Cold

Goals: This safety session should teach employees to:

- Recognize the hazards and symptoms of exposure to cold.
- Know how to prevent and respond to cold exposure.

Applicable Regulations: General Duty Clause Sec. 5(a), 1910.132

1. Overexposure to Cold–Indoors or Outdoors–Can Be Harmful to Health

- **Frostbite.** Body tissues may freeze when skin is exposed to extreme cold or touches a very cold object.
 - The nose, ears, cheeks, fingers, and toes are at greatest risk.
 - Worst cases can cause permanent tissue damage, loss of movement in affected parts, and possibly unconsciousness and death from heart failure.
 - Damage may be greater if the body part is thawed, then refrozen.
- **Hypothermia.** Exposure to cold may send body temperatures to dangerously low levels.
 - It can occur in above-freezing temperatures when it's windy or you're exhausted or wearing wet clothes.
 - Worst cases can lead to unconsciousness and death.
- **Factors that increase the risks of frostbite and hypothermia include:**
 - Age
 - Overweight
 - Smoking and drinking
 - Certain medications, allergies, or poor circulation
 - Victims' failure to recognize symptoms and take prompt action

2. Reduce the Risks of Exposure to Extreme Cold

- Avoid bathing, smoking, or drinking alcohol before going into cold conditions.
- Wear layers of loose, dry clothes.
 - If possible, wear wool underneath and a waterproof layer on top.
- Always cover hands, feet, face, and head in the cold
 - An uncovered head can make the body lose up to 40 percent of its heat.
- Change or get dry immediately if clothes get wet.
- Keep moving while working in the cold. Take regular breaks in warm areas.
- Move to a warm area when you start to feel very cold or numb.
 - Have a warm alcohol-free, caffeine-free drink.



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3. Recognize Frostbite and Hypothermia Symptoms

Frostbite symptoms include:

- Feeling extremely cold, then numb—with possible tingling, aching, or brief pain.
- White or grayish yellow glossy skin, which may blister.
- Confusion, failing eyesight, and shock as condition progresses.

Hypothermia symptoms include:

- Chills, shivering, numbness and sometimes pain in the extremities.
- Slurred speech, poor coordination, confusion, drowsiness.

4. Respond Quickly and Correctly to Frostbite and Hypothermia Symptoms

Act immediately when symptoms develop to prevent serious problems.

- Move to a warm place.
- Replace frozen, wet, or tight clothes with warm clothes or blankets.
- Drink a warm beverage—without alcohol or caffeine.
- Get medical help after first aid treatment.
- **Take first aid actions for frostbite:**
 - Warm the frozen part immediately with blankets or warm (not hot) water.
 - Avoid touching the frozen part; don't rub or hit it.
 - Keep the frozen part away from hot stoves, heat lamps or hot water bottles.
 - Don't break blisters or drink anything with caffeine.
 - Exercise the body part once it's warm—but don't walk on frostbitten feet
- **Take first aid actions for hypothermia:**
 - Cover victim with blankets—and/or lie next to person to give body heat.
 - DON'T use hot baths, electric blankets, or hot water bottles.
 - Keep the person awake and give artificial respiration if needed.
 - Get emergency help immediately if the person loses consciousness.

Conclusion: When It's Cold, Be Constantly Alert to Health Hazards

Dress and move to prevent frostbite and hypothermia. Act immediately if you or someone around you experiences any symptoms.