



GOALS

This safety session teaches 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) (1)



1. Overexposure to cold—indoors or outdoors—can be harmful to health.

- **Frostbite.** Body tissue 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; *and*
 - 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.

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; *and*
- Confusion, failing eyesight, and shock as condition progresses.



Hypothermia symptoms include:

- Chills, shivering, numbness, and sometimes pain in the extremities; *and*
- Slurred speech, poor coordination, confusion, and 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 give hot baths, or use electric blankets, or use hot water bottles.
 - Keep the person awake, and give artificial respiration if needed.
 - Get emergency help immediately if the person loses consciousness.



DISCUSSION POINTS:

Ask participants what jobs could expose them to dangerous cold levels indoors or out.



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.



TEST YOUR KNOWLEDGE:

Have your employees take the Working in the Cold quiz. By testing their knowledge, you can judge their understanding of how to prevent these accidents and whether you need to review this important topic again soon.



Brrring Down the Risks of Frostbite and Hypothermia in the Cold

- Keep moving.
- Take extra care if it's wet or windy outdoors.
- Wear warm, loose, layered clothing.
- Cover your feet, hands, face, and head.
- Get to a warm area and into warm, dry clothes or blankets if you're:
 - Having frostbite or hypothermia symptoms;
 - Wet; *or*
 - Uncomfortably cold or numb.

Frostbite = Frozen Tissues

Symptoms:

- Feel extremely cold, numb, and possibly tingly or aching
- White or grayish yellow glossy skin, sometimes followed by blisters

Treatment:

- Warm frozen part with blankets or warm (not hot) water.
- Don't rub the body part, drink caffeine, or break blisters.
- Don't warm with a hot stove, heat lamp, or hot water bottle.
- Exercise warmed body part (but stay off frostbitten feet).
- Get medical attention.

Hypothermia = Dangerously Low Body Temperature

Symptoms:

- Chills, shivering, and numbness
- Slurred speech, poor coordination, confusion, drowsiness

Treatment:

- Cover with blankets and/or provide body heat.
- Don't give hot baths, or use electric blankets, or use hot water bottles.
- Keep the person awake.
- Get medical attention.