

10 - Working In The Cold: Safety Training

EH&S – MGA

Goals: This safety session should teach you to:

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

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

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

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

2. Reduce the Risks of Exposure to Extreme Cold

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

3. Recognize Frostbite and Hypothermia Symptoms

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

- B. Hypothermia symptoms include:
1. Chills, shivering, numbness and sometimes pain in the extremities.
 2. Slurred speech, poor coordination, confusion, drowsiness.

4. Respond Quickly and Correctly to Frostbite and Hypothermia Symptoms

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

Summation: 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.