



3212 Cutshaw Avenue, Suite 318
Richmond, VA 23230
804-355-7255
www.circlesafety.com

Safety Meeting Topic: Working in Cold Environments

More than 700 people die from cold-induced illnesses/injuries each year in the United States. To help protect workers in cold environments, follow these simple tips and precautions:

- Learn the signs and symptoms of cold-induced illnesses/injuries and what to do to help workers.
- Wear appropriate clothing for cold, wet and windy conditions. Layer clothing to adjust to changing environmental temperatures. Wear a hat and gloves, in addition to insulated underwear that will keep water away from the skin—such as polypropylene.
- Take frequent short breaks in warm dry shelters to allow the body to warm up.
- Avoid exhaustion or fatigue because energy is needed to keep muscles warm.
- Use the buddy system—work in pairs so that one worker can recognize danger signs of cold-induced illnesses/injuries.
- Drink warm, sweet beverages (sugar water, sports drinks, etc.) and avoid drinks with caffeine (coffee, sodas or hot chocolate) or alcohol.
- Eat warm, high-calorie foods such as hot pasta dishes.

Common Cold-induced Illnesses/Injuries & First Aid Procedures

Frostbite: white and waxy skin appearance

Frozen: hard skin that will look blotchy white to yellow-gray or blue-gray

First Aid Care:

- Remove the victim from the cold environment.
- Transport the victim immediately to a medical facility.
- The affected area may feel frozen on the surface—don't rub or squeeze the affected tissue.
- Don't allow the victim to smoke. Smoking will further constrict the blood vessels, hindering the body's own heating abilities.
- Don't rewarm the area if there is any chance of refreezing.
- Only rewarm the area if medical personnel advise you to do so. If you are advised to rewarm, place the affected body part in warm water, being sure that it is not touching the bottom or sides of the container. Add warm water (100°F to 105°F) as needed. You should be able to put your hand in the water without feeling discomfort. Once the area thaws, bandage loosely with a sterile dressing. If the affected area is the hand or foot, place padding between the fingers or toes.

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Mild Hypothermia: victim is conscious, shivering, slurred speech, stumbling or staggering.

First Aid Care:

- Remove from the cold environment and have a source of heat (warm water, fireplace, etc.) for rewarming.
- Replace wet clothing with dry.
- Provide a hat, blankets, coats, etc. to insulate the victim.
- Seek medical attention.

Severe Hypothermia: victim may appear dead, pupils dilated, pulse and breathing slow, shivering has stopped, muscles stiff and rigid, bluish skin appearance, etc.

First Aid Care:

- Call EMS and keep victim from getting colder.
- Be careful when moving victim—treat victim as though they would break.
- Don't rewarm.
- Check the victim's pulse and breathing before determining the need for CPR.



Jan Thomas, CSP, PhD

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