



*Safety Brief Series*

# Dressing for Winter Work & Protecting Yourself from Cold Stress

Cold weather can limit your ability to see, hear, smell, and touch as well as hinder your ability to recognize danger. It is usually difficult to be productive when you are cold, too. Therefore, it is important to dress for the weather conditions. Workers who are exposed to extreme cold or work in cold environments may be at risk of cold stress. Extremely cold or wet weather is a dangerous situation that can cause occupational illness and injuries such as hypothermia, frostbite, trench foot, and chilblains.

## Hypothermia

*A condition in which the body uses up its stored energy and can no longer produce heat; often occurs after prolonged exposure to cold temperature*

### Early Symptoms:

- Shivering
- Fatigue
- Loss of coordination
- Confusion and disorientation

### Late Symptoms:

- No shivering
- Blue skin
- Dilated pupils
- Slowed pulse and breathing
- Loss of consciousness

### First Aid:

- Request immediate medical assistance.
- Move the victim into a warm room or shelter.
- Remove wet clothing.
- Warm the center of their body first—chest, neck, head, and groin—using an electric blanket; or use skin-to-skin contact under loose, dry layers of blankets, clothing, or towels.
- If conscious, warm beverages may help increase the body temperature. Do not give alcohol.
- Once temperature has increased, keep them dry and wrapped in a warm blanket, including the head and neck.
- If no pulse, begin CPR.

## Frostbite

*An injury to the body that is caused by freezing, often affecting the nose, ears, cheeks, chin, fingers, or toes*

### Symptoms:

- Reduced blood flow to the hands and feet
- Numbness
- Aching
- Tingling or stinging
- Bluish or pale, waxy skin

### First Aid:

- Get into a warm room as soon as possible.
- Unless necessary, do not walk on frostbitten feet or toes.
- Immerse the affected area in warm (not hot) water, or warm the affected area using body heat. Do not use a heating pad, fireplace, or radiator for warming.
- Do not massage the frostbitten area; doing so may cause more damage.

## Trench Foot

*An injury of the feet resulting from prolonged exposure to wet and cold conditions that can occur at temperatures as high as 60 °F if the feet are constantly wet*

### Symptoms:

- Reddening of the skin
- Numbness
- Leg cramps
- Swelling
- Tingling pain
- Blisters or ulcers
- Bleeding under the skin
- Gangrene (foot may turn dark purple, blue, or gray)

### First Aid:

- Remove shoes/boots and wet socks.
- Dry feet.
- Avoid walking on feet, as this may cause tissue damage.



## Chilblains

*Ulcers formed by damaged small blood vessels in the skin, caused by the repeated exposure of skin to temperatures just above freezing to as high as 60 °F*

### Symptoms:

- Redness
- Itching
- Possible blistering
- Inflammation
- Possible ulceration in severe cases

### First Aid:

- Avoid scratching.
- Slowly warm the skin.
- Use corticosteroid creams to relieve itching and swelling.
- Keep blisters and ulcers clean and covered.

## Protect Yourself

- Monitor your physical condition and that of your coworkers.
- Wear appropriate clothing.
  - Wear several layers of loose clothing for insulation.
  - Tight clothing reduces blood circulation to the extremities.
- Use outer layer of clothing as a windbreaker. This will make the layers underneath more effective.
- Be aware that some clothing may restrict movement resulting in a hazardous situation.
- Protect the ears, face, hands and feet in extremely cold or wet weather.
  - Boots should be waterproof and insulated.
  - Wear a hat to reduce the loss of body heat from your head.
  - Gloves are very important. Most often a thin pair of wool gloves under a pair of leather gloves will provide the best protection.
- Minimize sweat. If you begin to get hot, take a layer off. Try to avoid getting your clothing wet. Once wet, they will not serve as good insulation from the cold.
- Move into warm locations during breaks; limit the amount of time outside.
- Carry extra socks, gloves, hats, jacket, blankets, a change of clothes and a thermos of hot liquid.
- Include chemical hot packs in your first aid kit.
- Avoid touching cold metal surfaces with bare skin.

**Remember:** Do not overdress. This can restrict your movements and increase the chance of an accident. Shock resulting from an accident in cold weather can be much more dangerous than in warm weather. Should an accident occur in cold weather, it is critical that the injured person be kept warm. When dealing with the weather and the effects of it on a project, use common sense to minimize the adverse effects.



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