



Safety Matters

Talking Points for Supervisors

Meiners Electric

Working Safely in Cold Weather

Workers exposed to extremely cold conditions are at risk of serious health problems, including hypothermia, frostbite, loss of body fluids and back injuries. Frigid temperatures can also cause additional pain for sufferers of arthritis and rheumatism. To prevent injuries and illness as a result of winter weather, workers must exercise extreme caution and watch out for the injury and illness warning signs.

Causes of Cold Weather Injuries

According to the Occupational Safety and Health Administration (OSHA), there is no exact temperature at which the environment becomes hazardous. Instead, factors such as low temperatures, wind speed and wetness contribute to cold-induced injuries and illness.

- Exposed skin freezes within one minute at -20°F when the wind speed is five miles per hour (mph), and will freeze at 10°F if the wind speed is 20 mph.
- When skin or clothing is wet, injury or illness can occur in temperatures above 10° F, and even above freezing (32° F).
- When the body is unable to warm itself, hypothermia and frostbite can set in, resulting in permanent tissue damage and even death.

Signs of Injury and Illness

- Uncontrollable shivering
- Slurred speech
- Clumsy movements
- Fatigue
- Confused behavior

Considerations

To reduce the risk of cold-induced injuries, consider the following recommendations:

- Layer clothing to keep warm enough to be safe, but cool enough to avoid perspiring excessively.
 - Inner layer – synthetic weave to keep perspiration away from the body.
 - Middle layer – wool or synthetic fabric to absorb sweat and retain body heat.
 - Outer layer – material designed to break the wind and allow for ventilation, such as Gore-Tex®.
- Wear a hat. Almost 40 percent of your body heat escapes from your head. If you wear a hard hat, add a winter liner that covers your neck.
- Place heat packets in gloves, vests, boots and hats to add heat to the body.
- Watch out for the effects of cold temperatures on common body functions such as:
 - Reduced dexterity and hand usage
 - Cold tool handles reduce workers' grip force
 - The skin's reduced ability to feel pain in cold temperatures
 - Reduced muscle power and time to exhaustion

To reduce the risk of cold-induced injuries, layer your clothing, wear a hat and seek shelter at the first sign of hazardous working conditions.

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