

CONNER STRONG & BUCKELEW

UTILITY & TRANSPORTATION CONTRACTORS ASSOCIATION
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PLAYINGITSAFE

SAFETY SOLUTIONS FOR YOUR BUSINESS

WORKING SAFELY IN COLD WEATHER

Workers exposed to extremely cold conditions are at risk of serious health problems, including hypothermia, frostbite, dehydration and muscle injuries. Frigid temperatures can also cause additional pain for those who suffer from arthritis and rheumatism. To prevent injuries and illness as a result of winter weather, it's important to learn about the causes, symptoms and safety considerations to take so you are prepared to handle winter's worst.

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

If you or a co-worker have any of the following symptoms, get indoors and alert your supervisor or call for medical attention if they do not subside:

- Uncontrollable shivering
- Slurred speech
- Clumsy movements
- Fatigue
- Confused behavior
- White or grayish-yellow area(s) of the skin
- Skin that feels "waxy"
- Numbness

It's important to note that many people suffering from the warning signs of frostbite do not notice because the tissue is numb. Therefore, it is wise for employees to check on each other periodically.

SAFETYTIP

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.

SAFETY CONSIDERATIONS

To reduce the risk of cold-induced injuries:

- Layer clothing to keep warm enough to be safe, but cool enough to avoid perspiring excessively. It should also contain the following:
  - **Inner layer –** a 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 reducing your grip force
  - The skin's reduced ability to feel pain in cold temperatures
  - Reduced muscle power and time to exhaustion

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