

Risk Control Bulletin - January 2018

What to Wear when Working in Extreme Cold

Working outside during the winter can leave workers susceptible to illnesses like hypothermia or injuries from frost bite. Hypothermia happens when the body's core temperature drops below what is required for normal metabolism and body functions. Due to the long-term effects and potential fatalities of cold injury, taking preventative measures is pivotal to keep staff safe.

Dressing the part: Say no to cotton and goose down

While working outdoors, winter clothing is your single most important resource to keep warm. It's essential to dress in loose-fitting layers, which trap heat easily and allow you to adjust clothing as your activities change throughout the day. If overdressed, you'll work up a sweat as the day progresses. When you're less active, sweat starts to cool your body down, so it's important to wear enough layers to keep warm, but not so hot as to sweat excessively. If you are sweating profusely you may be overexerting yourself, work activities and hydration should be adjusted accordingly. Be sure to add layers of clothing as your activity level decreases. Layers should be made of fabrics that retain warmth when wet such as wool, polyester fleece, and polypropylene (often found in synthetic long-johns). *Cotton is quite possibly the worst fabric to wear for warmth in winter. Once it gets wet from rain, snow or sweat, the cotton will start to extract heat out of the body. The effects are especially noticeable in cotton socks, underwear, or if a cotton T-shirt is the first layer next to skin. Goose down is an excellent insulator when dry, but because it loses almost all its insulating power when wet, it is best to avoid during winter months.*

Layering Systems

Wicking Layer: This is the layer next to the skin. This layer should remove moisture from the skin and transfer it to the next layer. **Light Insulating Layer:** This goes after the wicking layer. A light fleeco or thin wool sweater is an excellent choice. **Heavy Insulating Layer:** A heavier fleeco or wool sweater begins to trap heat in the body. **Windproof-Waterproof Layer:** This protects your body from a variety of weather conditions, from wind to rain, to wet snow.

Winter Headwear

Fifty percent of body heat is lost through the head. A winter hat adds a tremendous amount of warmth. A ski mask can be worn and are excellent form protecting facial tissue from frost bite, particularly if hard hats are required.

Gloves & Mitts

Mitts are warmer than gloves but not always practical. A thin glove can be worn underneath a mitt. When more technical work must be completed the mitts can be removed.

Socks & Boots

A two-layer sock system is most recommended for winter travel. A thin polypropylene sock with a wool sock over top allows moisture to be wicked from the feet and wool will stay warm even when wet. Boot size is also important – your toes need wiggle room – avoid a tight fit that restricts circulation. Some workers prefer a single pair of loose-fitting wool and/or synthetic material socks in an insulated boot, and bring a spare pair just in case.

To keep you and your workplace safe during the harsh winter months remember planning ahead, dressing in loose layers that cover all of your body and checking the forecast. Don't forget to take frequent breaks away from the elements to stay warm.



Frostbite Symptoms

- Sensations of coldness
- Tingling, stinging, or itching sensation
- Skin feels numb and cold to the touch
- Skin is waxy and appears white
- Blistering, turning red, then black



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