

Hypothermia/Cold Stress Practices and Prevention

Protective Clothing is the most important way to avoid cold stress. The type of fabric also makes a difference. Cotton loses its insulation value when it becomes wet. Wool, silk and most synthetics, on the other hand, retain their insulation even when wet. The following are recommendations for working in cold environments:

- Wear at least three layers of clothing. An inner layer of wool, silk or synthetic to wick moisture away from the body. A middle layer of wool or synthetic to provide insulation even when wet. An outer wind and rain protection layer that allows some ventilation to prevent overheating.
- Wear a hat or hood. Up to 40% of body heat can be lost when the head is left exposed.
- Wear waterproof and insulated boots or other footwear.
- Keep a change of dry clothing available in case work clothes become wet.
- With the exception of the wicking layer do not wear tight clothing. Loose clothing allows better ventilation of heat away from the body.
- Do not underestimate the wetting effects of perspiration. Oftentimes wicking and venting of the body's sweat and heat are more important than protecting from rain or snow.

Work Practices

- Drink plenty of liquids, avoiding caffeine and alcohol.
- Take frequent breaks and consume warm, high calorie food such as pasta to maintain energy reserves.
- Take breaks out of the cold.
- Try to work in pairs to keep an eye on each other and watch for signs of cold stress. Monitor your physical condition and that of your coworker.
- Avoid fatigue since energy is needed to keep muscles warm.
- Carry cold weather gear, such as extra socks, gloves, hats, jacket, blankets, a change of clothes and a thermos of hot liquid.
- Include a thermometer and chemical hot packs in your first aid kit.
- Avoid touching cold metal surfaces with bare skin.

Sources: <http://www.cdc.gov/niosh/topics/coldstress/>
<https://www.osha.gov/SLTC/emergencypreparedness/guides/cold.html>