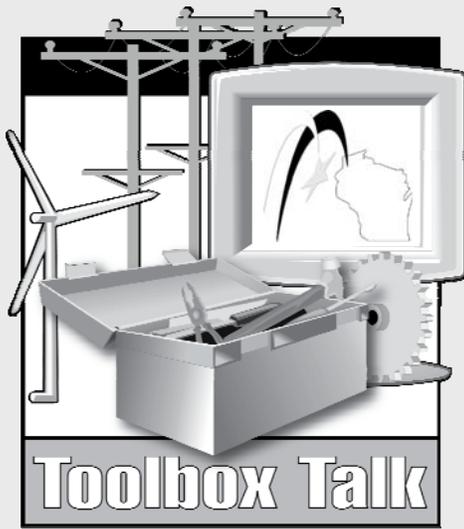


Working in Extreme Weather: Cold Conditions



What's Covered:

Dangers of working in extremely cold weather.

Precautions that should be taken when working in cold weather conditions.

How to choose proper clothing and footwear to work in extremely cold weather conditions.

For Discussion Leaders:

Discuss company safety policies and practical solutions to working in extreme weather out of doors, especially cold weather.

Discussion Notes:

In Wisconsin it is likely that you will be exposed to extreme temperatures at both ends of the spectrum, especially if you work outside. Excess heat and extreme cold are conditions that can place significant stress on the human body. This can affect your health and can also affect productivity review and discuss your employer's policies regarding weather conditions.

Cold Weather

Proper clothing in cold weather means dressing in layers for the best protection. Layers insulate your body by creating pockets of air. Wearing multiple layers allows you to take items off as you get warmer.

Start your layers with thermal under wear or synthetic fibers such as Gore-Tex® or Thinsulate®. These fabrics allow perspiration to escape leaving the fabric close to your skin dry. Avoid wearing cotton next to your skin; it does not allow perspiration to escape, leaving cold moisture in contact with your skin.

Additional layers should provide insulation to your body. Choose wool, goose down or synthetic fiber-filled materials for the next several layers. Finish your layers with a waterproof or wind-resistant outer shell.

To keep your feet warm, wear wool or wool-blend socks. Wool provides better warmth than cotton, and keeps your feet drier. For extremely cold conditions put wool socks over a lightweight fabric such as polypropylene. Using heavy-duty insulated boots will help beat the cold, and many models contain felt liners that you can pull out at night to dry. Some brands even have steel toes. Talk with your supervisor or safety director about proper cold weather work footwear.

For protecting hands, mittens will provide the most warmth by allowing body heat to circulate, however most tasks require more agility than mittens can provide. A "first-finger" mitten provides warmth and better dexterity by having the index finger and thumb covered like a conventional glove, with the remaining three fingers enclosed like a mitten. Insulated leather work gloves are also a popular choice.

Danger: Frostnip, Frostbite and Hypothermia

When your body is overexposed to near-freezing or freezing temperatures, the impact on your body tissues and body temperature can create a cold-related emergency. If you work outside during winter, you should be aware of the symptoms and treatment of frostnip, frostbite and hypothermia.

Frostnip is the development of tingling sensations due to exposure to the cold. With Frostnip, the tingling sensations disappear when the area is rewarmed and there is no concern for tissue damage.

Frost bite is a serious and dangerous condition that most often affects

Points to Remember!

Know how to dress appropriately for working in cold weather.

Know the symptoms and treatments for frostnip, frostbite and hypothermia.

nose, ears, tips of fingers, and toes. Signs of frost bite include tissues that appear white and frozen, progressive numbness and loss of sensitivity to touch. If you notice signs of frost bite, immediately notify your supervisor or coworkers and call for medical help. Describe the circumstances and location to the medical professional and follow their instructions. While waiting for medical help to arrive, keep the affected area elevated to avoid swelling and move to a warm area to prevent further heat loss. Do not thaw an affected area if there is any chance that it may freeze again. The thaw-refreeze process is very harmful to the tissue.

Hypothermia is when a person's core internal temperature drops below 95 degrees. Danger signs include intense shivering, stiffness, numbness in the arms and legs, stumbling and clumsiness, sleepiness, confusion and amnesia. Seek medical attention immediately if you or a coworker exhibit these symptoms.

Other tips to help conquer the cold:

- Warm your insides by eating a healthy diet and avoiding drugs that interfere with the body's ability to respond to cold, such as nicotine and alcohol, which both dilate the human body's blood vessels, thus increasing heat loss.
- Carbohydrate-based foods, such as breads, cereals and pasta are the best food source to help your body produce heat. Also, keep plenty of liquids on hand to prevent dehydration.
- Don't forget your head. A large percentage of heat loss occurs through the top of your head. Wear a cap. When you wear a hard hat, use a liner.
- When working in windy conditions outdoors, block the wind with your vehicle or build a shelter around your work area.
- Remember to take periodic breaks in a warm area like your vehicle. If conditions become unbearable, contact your supervisor immediately.

Participant Signature(s) and Date:
