

Toolbox Talks

Frigid Temperatures Part 1



Winter is finally here & the temperatures outside are starting to slide. Beside the general frustration of it all, there are serious hazards associated with being outside in the winter.

Hypothermia

·Hypothermia is a lowering of the body's core temperature, commonly caused by getting wet & chilled. As the body temperature drops, damage to the vital organs, such as the brain, can occur.

·Hypothermia can be fatal, so it is important to avoid these conditions & get prompt medical help if it develops.

·**These are some symptoms of hypothermia:** Chills, shivering, confusion, loss of coordination, inability to speak clearly/slurred speech, & irrational behavior. The victim could lose consciousness, indicating a serious case of hypothermia.

·However, hypothermia has different symptoms for children & adults. In children, hypothermia symptoms include less energy & cold, bright red skin.

·Individuals experiencing any of these symptoms should be taken to the hospital immediately.

Frostbite

·Frostbite is when your flesh freezes. It can occur even without the symptoms of hypothermia. Your extremities, such as your ears, feet, fingers, & cheeks, are prone to frostbite in extremely cold weather.

·Symptoms of frostbite are quite different from hypothermia. The exposed skin will first appear reddish & then a greyish-white color. You've probably seen on TV where mountain climbers have been rescued & their noses or fingers are jet black. This is because the skin has, in essence, died.

·Frostbite can progress into a medical emergency & therefore require immediate first-aid treatment.

Preventing Hypothermia & Frostbite

The easiest way to prevent hypothermia or frostbite is to dress for the conditions & to be aware of how your body is coping with the cold.

Try these suggestions for cold weather work:

- Wear several layers of loose-fitting clothing. Then you can adjust by removing or adding a layer or two. Even simple activities, such as frequently getting in & out of a vehicle, can create a challenge for maintaining a comfortable body temperature.
- To stay dry as you work, dress so that the layer next to your skin can "wick" the moisture away. Wet clothing can lose up to 90% of its insulation value & drain your body heat away.
- Make sure your hands & head are covered at all times to minimize your heat loss. Wear an approved cold weather liner under your hard hat for added warmth.
- In severe weather conditions, particularly cold winds, you may need to cover your face with a scarf or woolen mask.
- The combination of wet & cold is particularly dangerous, so carry extra clothing, including socks & gloves, if there is any chance yours will get wet. Extra socks, gloves, & boot liners are easy to stash in a pocket or pack. Then if yours get wet, you can easily change for a quick warm-up.
- Besides providing warmth for your hands, gloves must protect you against your specific job hazards - for instance, cuts, punctures, burns, chemicals, or electricity. (Mittens are actually warmer than gloves, so if the only objective is to stay warm, choose mittens).
- Your safety footwear should keep your feet warm & dry. Extra boot liners & warm winter socks will help.
- Falling into water can be quickly fatal in winter. (Even in summer, hypothermia can occur after immersion in cold water).
- Keep moving when you are outdoors in cold weather. Head for someplace warm & dry for your rest breaks.
- Beware of hypothermia during your recreational pursuits as well. Try not to get wet when you are out skiing, ice fishing, or snowmobiling. Drinking alcohol can make you more susceptible to hypothermia, so avoid this when you are outdoors in the cold.

Dress for the weather & your outside work will be more comfortable. But, remember, it is sometimes difficult for you recognize the symptoms of frostbite or hypothermia in yourself. Make sure you & your coworkers/companions keep a close watch on each other for the warning signs. If symptoms develop, get to a warm, dry place right away. Call for medical help immediately if symptoms are serious.



Toolbox Talks

Frigid Temperatures Part 2



5 Things to Know When Frigid Weather Strikes

1. Dress Warmly & Stay Dry

Do not ignore shivering. It's an important first sign that the body is losing heat. Persistent shivering is a signal to return indoors.

2. Avoid Exertion

Cold weather puts an extra strain on the heart. If you have heart disease or high blood pressure, follow your doctor's advice about shoveling snow or performing other hard work in the cold. Otherwise, if you have to do heavy outdoor chores, dress warmly & work slowly. Remember, your body is already working hard just to stay warm, so don't overdo it.

3. Understand Wind Chill

The Wind Chill index is the temperature your body feels when the air temperature is combined with the wind speed. For example, when the actual air temperature of the wind is 40°F (4°C) & its velocity is 35 mph, the exposed skin receives conditions equivalent to the still-air temperature being 11°F (-11°C).

4. Look For Signs of Frostbite

The extent of frostbite is difficult to judge until hours after thawing.

There are two classifications of frostbite:

- **Superficial frostbite** is characterized by white, waxy or grayish-yellow patches on the affected areas. The skin feels cold & numb. The skin surface feels stiff & underlying tissue feels soft when depressed.
- **Deep frostbite** is characterized by waxy & pale skin. The affected parts feel cold, hard, & solid & cannot be depressed. Large blisters may appear after rewarming. (See reverse side for more about Frostbite)

5. Prevent Hypothermia

Avoid touching cold objects, as they will quickly steal heat from the body. (See reverse side for more about Hypothermia)

All information found at www.safetytoolboxtalks.com & www.osha.gov

THE COLD STRESS EQUATION

LOW TEMPERATURE + WIND SPEED + WETNESS = INJURIES & ILLNESS

When the body is unable to warm itself, serious cold-related illnesses and injuries may occur, and permanent tissue damage and death may result.

Hypothermia can occur when *land temperatures* are **above** freezing or *water temperatures* are below 98.6°F/ 37°C. Cold-related illnesses can slowly overcome a person who has been chilled by low temperatures, brisk winds, or wet clothing.

