

Safety Bugle



Today's Topic: Cold Stress

Cold Stress

When the body is unable to warm itself, serious cold-related illnesses and injuries can occur. These injuries can result in permanent tissue damage or even death. Hypothermia is the most severe of these cold related illnesses, although frost bite and frost nip can be painful and lead to permanent tissue damage.

Hypothermia can occur even when ambient temperatures are **above** freezing! It can slowly overcome a person who has been chilled by low temperatures, brisk winds, or wet clothing. The cold stress equation is:

Low Temperature + Wind Speed + Wetness = Cold Stress Injury

Prevention

Prevention is the key to reducing the risk of hypothermia and other cold related injuries. When working in cold or wet conditions, be sure to follow these guidelines:

- Recognize cold related hazards in your work activities.
- Plan outdoor activities during the warmest part of the day.
- Understand the signs and symptoms of cold-stress.
- Select proper clothing for cold, wet and windy conditions.
- Layer clothing to adjust for changing temperatures.
- Wear a hat and gloves when working in cold weather.
- Take short breaks frequently to allow the body to warm up.
- Work in pairs and watch for symptoms in your partner.
- Drink warm, sweet beverages. Avoid drinks with caffeine.

Increased Risk

People are at increased risk for developing cold-related injuries when they have health conditions such as diabetes or heart disease. Taking certain medications, poor diet and lack of exercise can also make someone more susceptible to injury.

Hypothermia

Symptoms include

- Extreme fatigue or drowsiness.
- Uncontrollable shivering.
- Cool, bluish colored skin.
- Slurred speech.
- Irrational or confused behavior.

Treatment

- **Call 911 Immediately.**
- Move the person to a warm and dry area.
- Remove wet clothing and replace with warm blankets.
- If alert, give the person warm, sweet drinks.
- Have the person move their arms and legs to create muscle heat. If they can't move, place warm bottles in the neck, arm-pits and head areas.
- **Do not** place them in a warm or hot bath.



Frost Bite or Frost Nip

Symptoms include

- Pale waxy-white skin color on the affected area.
- Skin becomes hard and numb.
- Affects the fingers, hands, feet, toes, ears, and nose.

Treatment

- Move the person to a warm, dry area.
- Remove any wet or tight clothing.
- Do not rub the affected body part.
- Gently place the frost bit body part in a warm water bath to slowly warm the tissue. Do not pour warm water directly onto the skin.
- Seek medical attention as soon as possible.

Need More Information?

For additional information on Cold Stress, see: OSHA Fact Sheet "Protecting Workers in Cold Environments."

http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=FACT_SHEETS&p_id=186

How Cold is Too Cold?
HOW COLD IS TOO COLD