

COLD STRESS SAFETY

Cold weather can present many different hazards. Chilling conditions, high wind speeds and precipitation can put workers at risk of cold stress. Cold stress occurs when the temperatures of your skin and core are so low that your body cannot warm itself. This may lead to serious health problems and may cause tissue damage and possibly death. It is imperative for employers to understand cold weather hazards to appropriately limit employee exposure and keep them safe while working outdoors in wintry conditions.

WHAT IS WIND CHILL?

Wind chill is when air temperature and wind speed combine. When outside temperatures drop, your body is forced to work harder to obtain its normal temperature of 98.6 degrees, ultimately causing heat to escape more rapidly. Wind chill can lead to cold stress illnesses and injuries, such as hypothermia, frostbite and trench foot. Factors that can increase likelihood of cold stress due to wind chill include:

- Wet and damp clothing
- Improper cold weather clothing
- Exhaustion
- Pre-existing health conditions, such as hypertension, hypothyroidism and diabetes
- Poor physical conditioning

COMMON TYPES OF COLD STRESS

According to the Occupational Safety and Health Administration (OSHA), there are three main conditions caused from cold stress:

1. Hypothermia: When normal body temperature drops to 95 degrees or lower. A mild symptom of hypothermia is shivering. Moderate to severe symptoms include confusion, slurred speech, slowed heart rate and breathing and loss of consciousness.
2. Frostbite: When body tissues, especially hands and feet, can freeze. Symptoms include numbness, reddened skin that develops gray or white patches, firmed skin and blisters.
3. Trench Foot (Immersion Foot): A non-freezing injury to feet caused by lengthy exposure to wet and cold environment. Symptoms include redness, swelling, pain, tingling, leg cramps, numbness and blisters.

If a coworker experiences any of the symptoms listed above, call 911 or contact emergency services immediately.

PREVENTING COLD STRESS

OSHA recommends employers and employees follow these guidelines to prevent cold stress illnesses and injuries:

Employers:

- Train workers on how to recognize conditions that are susceptible to cold stress.
- Educate workers on the symptoms of cold stress, how to prevent it and what to do if a condition occurs.
- Determine proper clothing for workers to wear during cold, wet and windy conditions.

Employees:

- Wear at least three layers of loose-fitting clothing that allows ventilation to prevent overheating.
- Wear insulated gloves, preferably water-resistant.
- Wear insulated and waterproof boots.
- Listen to your body, and pay attention to your co-workers' physical condition.
- Keep extra dry clothing nearby.
- Drink warm and sweetened fluids (no alcohol).