

FACTS AT A GLANCE

- **Blizzard Warning:** sustained or gusty winds of 35 mph plus, and falling or blowing snow creating visibilities at or below 1/4 mile; conditions persisting for at least 3 hours.
- **Wind Chill Advisory:** wind chill temperatures will be a significant inconvenience to life with prolonged exposure, and, if caution is not exercised, could lead to hazardous exposure.
- **Wind Chill Warning:** wind chill temperatures will be hazardous to life within several minutes of exposure.
- Cold temperature plus wind speed creates wind chill.
*National Oceanic and Atmospheric Administration (NOAA)

TIPS FOR PREVENTION

- Know the symptoms of cold stress
- Dress appropriately (layers, loose fitting clothes, hat and gloves)
- Stay dry
- Drink warm sweetened fluids
- Use engineering controls, safe work practices and PPE
- Use a buddy system
- Adjust work schedule as needed
- Hypothermia can be deadly

DC 37 SAFETY AND HEALTH FACT SHEET

COLD STRESS

Some workers must work outdoors in cold environments for extended timeframes and are more vulnerable to cold stress. Some Occupations include Road work employees, Sanitation employees, Police Officers, Emergency Rescue Personnel, Inspectors, Parks employees, etc.

Cold stress occurs by driving down the skin temperature, and eventually the internal body temperature. As the body is unable to warm itself serious injuries can occur. Wind chill is the temperature your body feels when air temperature and wind speed are combined.

Risk Factors can include:

- Wetness/Dampness
- Dressing Inappropriately
- Predisposed Health Conditions (hypertension, hypothyroidism, and diabetes)

Common cold stress injuries/Illnesses include:

- Hypothermia
- Frostbite
- Immersion/Trench foot

What is Hypothermia?

Hypothermia occurs when body heat is lost faster than it can be replaced and the normal body temperature (98.6°F) drops to less than 95°F. Hypothermia is most likely at very cold temperatures, but it can occur even at cool temperatures (above 40°F), if a person becomes chilled from rain, sweat, or submersion in cold water.

Mild Symptoms include shivering or stomping feet

Moderate to Severe Symptoms include:

Lack of shivering, loss of coordination, confusion, disorientation, fumbling, inability to walk or stand, slowed breathing, loss of consciousness.

Death can occur if help is not received immediately.

Prevention

- Call 911 immediately in an emergency
- Move the worker to a warm, dry area. If possible remove wet clothes and replace with dry clothes, cover the body (including the head and neck) with layers of blankets; and with a vapor barrier (e.g. tarp, garbage bag). Do not cover the face.
- Provide warm, sweetened drinks if conscious.

What is Frostbite?

Frostbite is an injury to the body that is caused by freezing of the skin and underlying tissues. The lower the temperature, the more quickly frostbite will occur. Frostbite typically affects the extremities, particularly the feet and hands. Amputation may be required in severe cases.

Symptoms of Frostbite can include:

- Reddened skin develops gray/white patches.
- Numbness in the affected part.
- Blisters may occur in the affected part, in severe cases.

Prevention

- Call 911 immediately.
- Do not rub the affected area. Do not break blisters.
- Do not apply snow/water or place in warm water.
- Loosely cover and protect the area from contact.
- Give warm sweetened drinks, if the person is conscious.

What is Immersion/Trench Foot?

Trench Foot or immersion foot is caused by prolonged exposure to wet and cold temperatures. It usually occurs at temperatures as high as 60°F when the feet are constantly wet.

Symptoms of Immersion/Trench Foot?

- Redness of the skin, swelling, numbness, blisters.

Prevention

Call 911 immediately.

Remove shoes, or boots, and wet socks and dry the feet.

<https://www.osha.gov/Publications/OSHA3156.pdf>

<https://www.osha.gov/Publications/OSHA3982.pdf>