

Cold weather hazards



Cold weather is a workplace hazard. Employers must treat it as one. Exposure to cold temperatures can cause freezing injuries, non-freezing injuries and hypothermia. These conditions can range from mild to life-threatening.

Cold weather can also affect a worker's ability to work safely. Numb hands, shivering and confusion can increase the risk of workplace accidents.

Workers who experience a cold injury should report it and seek medical attention. Even minor injuries can increase the risk of future cold injuries.

Wind chill

Cold stress is affected by temperature, wind and wet or inadequate clothing. Injuries can occur even above freezing temperatures, especially when workers are wet or exposed to strong wind. Wind increases heat loss from the body, an effect known as wind chill. Both air temperature and wind speed should be considered when assessing cold weather risks.

COMMON COLD INJURIES

Windburn

Windburn is a freezing injury caused by exposure to strong wind. Signs include dry, red and itchy skin. Windburn may be an early warning sign that a worker is not adequately protected from the cold.

Frostbite

Frostbite occurs when body tissues freeze during exposure to cold temperatures. It most commonly affects the fingers, toes, nose, ears and cheeks.

Signs: loss of feeling, pale or white skin, tingling or sharp sensation

First aid: move to a warm location, warm the affected area gently, do not rub the skin

Immersion foot (trench foot)

Immersion foot occurs when feet remain wet for long periods.

Signs: swelling, tingling, pain, blistering, skin damage

First aid: remove wet footwear, dry feet, rewarm slowly

Hypothermia

Hypothermia occurs when body temperature drops below 35°C. It is a medical emergency.

Signs: shivering, confusion, slurred speech, slow breathing, loss of coordination

First aid: move the person to a warm location, remove wet clothing, wrap in warm blankets, seek medical help immediately

How employers should protect workers

Employers have a legal duty to protect workers from cold weather hazards.

Cold exposure should be prevented wherever possible. When it cannot be eliminated, employers must reduce the risk using the **hierarchy of controls**.

Engineering controls change the workplace or equipment used for the job.

Administrative controls change how work is organized or performed.

Elimination

- schedule outdoor work during warmer weather when possible
- delay non-essential work during extreme cold

Engineering controls

- provide heated vehicles, outdoor workstations and warming stations
- protect workers from wind using barriers or shelters
- insulate metal surfaces that workers must handle
- provide tools and equipment that can be used while wearing gloves and other personal protective equipment (PPE)
- equip vehicles with two-way communication systems and survival kits

Administrative controls

- establish work-rest schedules based on temperature and wind conditions
- provide regular warm-up breaks, with more frequent breaks as temperatures drop
- allow flexible breaks so workers can warm up when needed
- use buddy systems or supervision in colder conditions
- pace work to avoid sweating under protective clothing

PPE

Clothing is the main form of PPE used to protect workers from cold weather. It must be used with other control measures.

At a minimum, clothing should:

- provide enough insulation for the coldest temperatures workers may face
- allow moisture to escape to prevent sweat build-up
- be water resistant or waterproof
- fit loosely and be worn in layers
- be lightweight and easy to remove

How workers can organize to improve their workplace

To help prevent cold weather injuries, workers can:

- raise cold hazards at the joint health and safety committee
- demand regular warm-up breaks and heated shelters
- push for workplace cold weather policies
- raise the issue during collective bargaining
- request CUPE health and safety education on cold weather hazards
- take collective action when employers fail to address unsafe conditions

FOR MORE INFORMATION, CONTACT:

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