

# Working in the cold: What workers and employers should know



Winter conditions and refrigerated environments present a risk of cold-related illnesses and injuries for all workers in Wisconsin. Cold-related illnesses and injuries can be life-threatening or lead to permanent disability. They are:

## Frostbite



Frostbite is an injury caused by freezing of the skin and deeper tissues, most commonly occurring on the toes, fingers, chin, cheeks, ears, and nose. It causes the loss of feeling and color in the affected areas. Frostbite can permanently damage body tissues, and severe cases can lead to amputation.

## Chilblains



Chilblains are the painful inflammation of small blood vessels in the skin that occur in response to repeated exposure to cold but nonfreezing temperatures. Small blood vessels in the skin may become permanently damaged by cold temperatures, resulting in redness and itching during additional exposures.

## Trench foot



Trench foot is an injury of the feet after prolonged exposure to wet and cold conditions. Trench foot occurs because wet feet lose heat faster than dry feet. To prevent heat loss, the body constricts blood vessels in the feet, and then the skin tissue begins to die.

## Hypothermia



Hypothermia happens when the body loses heat faster than it can be produced. Hypothermia affects brain function, making a person unable to think clearly or move well. This makes hypothermia particularly dangerous because an affected person may be unable to avoid hazards or make life-preserving decisions.

## \* Slips and Falls



\* Slips occur more often on surfaces that are cold, wet, snowy, slushy, or icy. A fall resulting from a slip can cause severe injury and even death.

**Slips and falls are the most common work-related winter injuries in Wisconsin.**

Employers are urged to provide appropriate attire to protect workers from cold. Learn more at [www.osha.gov/winter-weather/preparedness](http://www.osha.gov/winter-weather/preparedness).



# Wisconsin workers' winter slips, trips, and falls



During Wisconsin's winter months, steps must be taken to prevent slips, trips, and falls in and around the workplace. Some workers are more at risk than others.

Workers over 45 are

**4x**

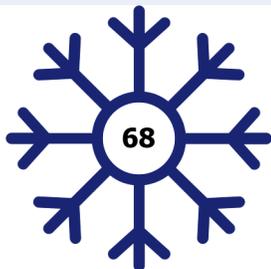
more likely to be injured in a fall than their younger coworkers.

Injury rates are



higher in Wisconsin's chillier northern counties, and at higher altitudes.

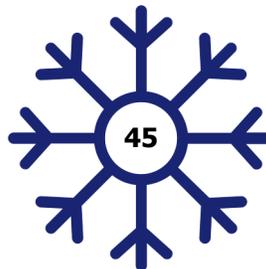
## Most hazardous occupations (highest claim rates\*) for winter slips, trips, and falls in Wisconsin



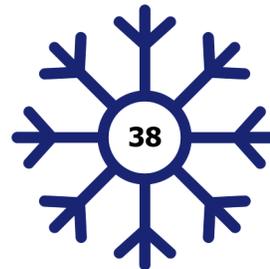
Motor vehicle operators



Firefighting and prevention workers



Law enforcement workers



Supervisors of protective service workers



Helpers, construction trades

\* Based on workers' compensation claims data, 2000-2022.



# Know the possible signs and symptoms of hypothermia, and prevent its progress.

Hypothermia's symptoms get worse over time. Coworkers should keep an eye on each other. It's best to intervene in the early stages.



Shivering



Confusion or disorientation



Loss of coordination



Fatigue

## Early symptoms



Not shivering



Slowed pulse and breathing



Loss of consciousness



Blue skin



Dilated pupils



Call 911 immediately

## Late symptoms



### Hypothermia first aid

- \* **If no pulse, begin CPR.**
- \* **For any late stage: call 911.**
- \* **Move the person into a warm room or shelter.**
- \* **Remove any wet clothing.**
- \* **Warm the center of their body first—chest, neck, head, and groin—using an electric blanket; or use skin-to-skin contact under loose, dry layers of blankets, clothing, or towels.**
- \* **If conscious, warm beverages may help the person increase their body temperature. Do not give alcohol.**
- \* **Once temperature has increased, keep them dry and wrapped in a warm blanket, including the head and neck.**



## What are the symptoms of frostbite?



Reduced blood flow to the hands and feet



Numbness



Aching



Tingling or stinging sensations



Blue or pale waxy skin



### Frostbite first aid

- \* **Get into a warm room as soon as possible.**
- \* **Unless necessary, do not walk on frostbitten feet or toes.**
- \* **Immerse the affected area in warm (not hot) water, or warm the affected area using body heat.**
- \* **Do not use a heating pad, fireplace, or radiator for warming.**
- \* **Do not massage the frostbitten area; doing so may cause more damage.**

### Frostbite prevention:



Keep moving, within reason. Exercise helps, but exhaustion does not.



Cover hands with mittens rather than gloves.



Wear warm, loose-fitting layers that cover your skin, with a waterproof windproof outer layer.



Cover ears by wearing a warm hat or headband.



Limit the amount of time spent in cold, windy, or wet environments.

# Prevent winter slips and falls.

Slips, trips, and falls



are a leading cause of injuries in Wisconsin.

Injury rates increase



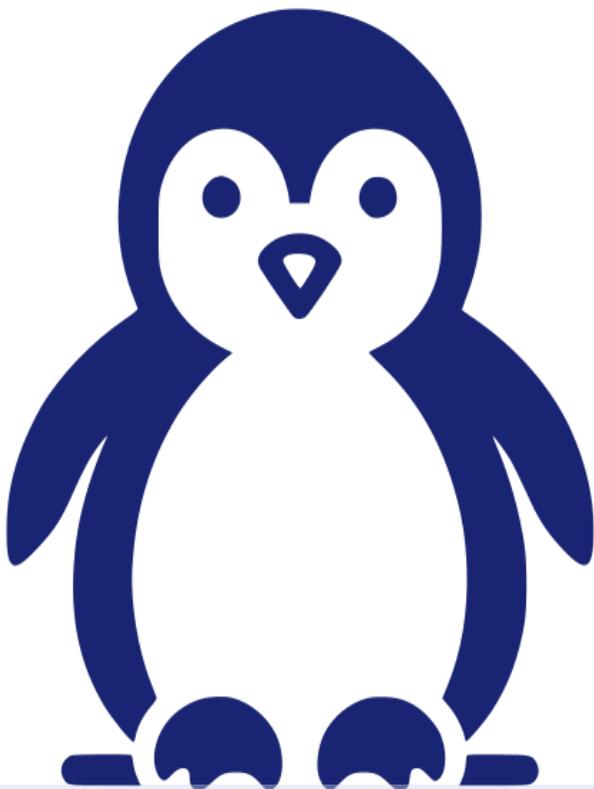
during winter storms, or when temperatures suddenly drop.

Injuries spike again



a few days after a storm, when people let their guard down.

## Stay safe on slippery surfaces: walk like a penguin!



**Point your toes slightly to the side.**

**Loosen your knees.**

**Keep weight centered over both feet.**

**Take short, shuffling steps.**

**Extend your arms on each side for balance.**

**Slow down.**

**Take extra care with non-penguin motions, like climbing or carrying things.**



**OCCUPATIONAL HEALTH AND SAFETY PROGRAM**

<https://www.dhs.wisconsin.gov/occupational-health> | [DHSOCHEALTH@dhs.wi.gov](mailto:DHSOCHEALTH@dhs.wi.gov)

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