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CENTER

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Rochester, MN 55904

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## Winter Driving

(from [https://www.osha.gov/dts/weather/winter\\_weather/hazards\\_precautions.html](https://www.osha.gov/dts/weather/winter_weather/hazards_precautions.html))

Although employers cannot control roadway conditions, they can promote safe driving behavior by ensuring workers recognize the hazards of winter weather driving, for example, driving on snow/ice covered roads; are properly trained for driving in winter weather conditions; and are licensed (as applicable) for the vehicles they operate. For information about driving safely during the winter, visit OSHA's Safe Winter Driving page.

Employers should set and enforce driver safety policies. Employers should also implement an effective maintenance program for all vehicles and mechanized equipment that workers are required to operate. Crashes can be avoided. Learn more at Motor Vehicle Safety (OSHA Safety and Health Topic's Page).

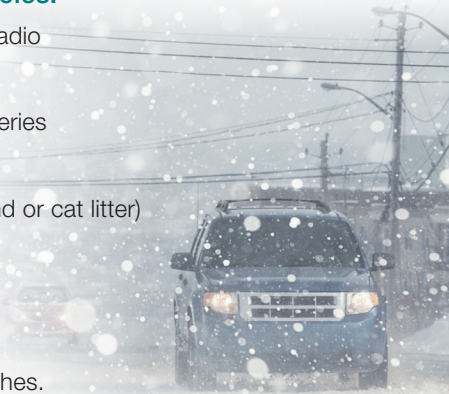
**Employers should ensure properly trained workers inspect the following vehicle systems to determine if they are working properly:**

- Brakes: Brakes should provide even and balanced braking. Also check that brake fluid is at the proper level.
- Cooling System: Ensure a proper mixture of 50/50 antifreeze and water in the cooling system at the proper level.

- Electrical System: Check the ignition system, and make sure that the battery is fully charged and that the connections are clean. Check that the alternator belt is in good condition with proper tension.
- Engine: Inspect all engine systems.
- Exhaust System: Check exhaust for leaks and that all clamps and hangers are snug.
- Tires: Check for proper tread depth and no signs of damage or uneven wear. Check for proper tire inflation.
- Oil: Check that oil is at proper level.
- Visibility Systems: Inspect all exterior lights, defrosters (windshield and rear window), and wipers. Install winter windshield wipers.

**An emergency kit with the following items is recommended in vehicles:**

- cell phone or two-way radio
- windshield ice scraper
- snow brush
- flashlight with extra batteries
- shovel
- tow chain
- traction aids (bag of sand or cat litter)
- emergency flares
- jumper cables
- snacks
- water
- road maps
- blankets, change of clothes.



# WorkingWell

Winter 2017

The Newsletter of Occupational Health Services

Call us today at  
507.292.7144

Inside:

Cold Stress Can  
Be Prevented  
(continued)  
- page 2-3

Winter Driving  
- page 4

**REMINDER:**  
OMC – Occupational  
Health Services  
has a NEW  
phone number:  
**507.292.7144.**

*Working Well* is a quarterly newsletter produced by Olmsted Medical Center's Occupational Health Services. To be added to or removed from our mailing list, contact us at 507.292.7144 or [occhealth@olmmed.org](mailto:occhealth@olmmed.org).



WINTER WEATHER

## Cold Stress Can be Prevented

[https://www.osha.gov/dts/weather/winter\\_weather/windchill.html](https://www.osha.gov/dts/weather/winter_weather/windchill.html)

It is important for employers to know the wind chill temperature so that they can gauge workers' exposure risk better and plan how to safely do the work. It is also important to monitor workers' physical condition during tasks, especially new workers who may not be used to working in the cold, or workers returning after spending some time away from work.

The National Oceanic and Atmospheric Administration (NOAA) Weather Radio is a nationwide network of radio stations broadcasting continuous weather information from the nearest National Weather Service (NWS) office. It will give information when wind chill conditions reach critical thresholds. A Wind Chill Warning is issued when wind chill temperatures are life threatening. A Wind Chill Advisory is issued when wind chill temperatures are potentially hazardous.

(continued inside)

## Who is affected by environmental cold?

Environmental cold can affect any worker exposed to cold air temperatures and puts workers at risk of cold stress. As wind speed increases, it causes the cold air temperature to feel even colder, increasing the risk of cold stress to exposed workers, especially those working outdoors, such as recreational workers, snow cleanup crews, construction workers, police officers, and firefighters. Other workers who may be affected by exposure to environmental cold conditions include those in transit, baggage handlers, water transportation, landscaping services, and support activities for oil and gas operations.

## Risk factors for cold stress include:

- wetness/dampness, dressing improperly, and exhaustion
- predisposing health conditions such as hypertension, hypothyroidism, and diabetes
- poor physical conditioning.

## What is cold stress?

What constitutes cold stress and its effects can vary across different areas of the country. In regions that are not used to winter weather, near freezing temperatures are considered factors for “cold stress.” Increased wind speed also causes heat to leave the body more rapidly (wind chill effect). Wetness or dampness, even from body sweat, also facilitates heat loss from the body. Cold stress occurs by driving down the skin temperature, and eventually the internal body temperature. When the body is unable to warm itself, serious cold-related illnesses and injuries may occur, and permanent tissue damage and death may result. Types of cold stress include trench foot, frostbite, and hypothermia.

*For more information, see OSHA’s Cold Stress Safety and Health Guide.*

## How can cold stress be prevented?

Although OSHA does not have a specific standard that covers working in cold environments, under the Occupational Safety and Health Act (OSH Act) of 1970, employers have a duty to protect workers from recognized hazards, including cold stress hazards, that are causing or likely to cause death or serious physical harm in the workplace.

Employers should train workers. Training should include:

- how to recognize the environmental and workplace conditions that can lead to cold stress
- the symptoms of cold stress, how to prevent cold stress, and what to do to help those who are affected
- how to select proper clothing for cold, wet, and windy conditions.

Employers should:

- monitor workers physical condition
- schedule frequent short breaks in warm dry areas to allow the body to warm up
- schedule work during the warmest part of the day
- use the buddy system (work in pairs)
- provide warm, sweet beverages; avoid drinks with alcohol
- provide engineering controls such as radiant heaters.

## Types of Cold Stress

### IMMERSION/TRENCH FOOT

Trench foot is a non-freezing injury of the feet caused by prolonged exposure to wet and cold conditions. It can occur in temperatures as high as 60°F if feet are constantly wet. Injury occurs because wet feet lose heat 25 times faster than dry feet.

### What are the symptoms of trench foot?

Reddening skin, tingling, pain, swelling, leg cramps, numbness, and blisters.

### First Aid

- Call 911 immediately in an emergency; otherwise seek medical assistance as soon as possible.
- Remove wet shoes/boots and wet socks.
- Dry the feet, and avoid working on them.
- Keep affected feet elevated, and avoid walking. Get medical attention.

## FROSTBITE

Frostbite is caused by the freezing of the skin and tissues. Frostbite can cause permanent damage to the body, and in severe cases can lead to amputation. The risk of frostbite is increased in people with reduced blood circulation and among people who are not dressed properly for extremely cold temperatures.

### What are the symptoms of frostbite?

Reddened skin develops gray/white patches in the fingers, toes, nose, or ear lobes; tingling, aching, a loss of feeling, firm/hard, and blisters may occur in the affected areas.

### First Aid

- Follow the recommendations described below for hypothermia.
- Protect the frostbitten area, e.g., by wrapping loosely in a dry cloth and protect the area from contact until medical help arrives.
- DO NOT rub the affected area, because rubbing causes damage to the skin and tissue.
- Do not apply snow or water. Do not break blisters.
- DO NOT try to re-warm the frostbitten area before getting medical help; for example, do not use heating pads or place in warm water. If a frostbitten area is rewarmed and gets frozen again, more tissue damage will occur. It is safer for the frostbitten area to be rewarmed by medical professionals.
- Give warm sweetened drinks if alert (no alcohol).



## HYPOTHERMIA

Hypothermia occurs when the normal body temperature (98.6°F) drops to less than 95°F. Exposure to cold temperatures causes the body to lose heat faster than it can be produced. Prolonged exposure to cold will eventually use up the body’s stored energy. The result is hypothermia, or abnormally low body temperature. 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 immersion in cold water.

### What are the symptoms of hypothermia?

An important mild symptom of hypothermia is uncontrollable shivering, which should not be ignored. Although shivering indicates that the body is losing heat, it also helps the body to rewarm itself. Moderate to severe symptoms of hypothermia are loss of coordination, confusion, slurred speech, heart rate/breathing slow, unconsciousness, and possibly death. Body temperature that is too low affects the brain, making the victim unable to think clearly or move well. This makes hypothermia particularly dangerous because a person may not know what is happening and won’t be able to do anything about it.

### First Aid

- Call 911 immediately in an emergency.
- Move the worker to a warm, dry area.
- Remove any wet clothing, and replace with dry clothing. Wrap the entire body (including the head and neck) in layers of blankets, and with a vapor barrier (e.g. tarp, garbage bag). Do not cover the face.
- If medical help is more than 30 minutes away, give warm sweetened drinks if alert (no alcohol) to help increase the body temperature. Never try to give a drink to an unconscious person.
- Place warm bottles or hot packs in armpits, sides of chest, and groin. Call 911 for additional rewarming instructions.