

Cold-Related Injuries Prevention Quick Reference Card



- **Do** start your workday hydrated. Start your hydration the night before.
- **Do** insure vehicle is adequately fueled (½ tank) and emergency survival kit is available and inspected.
- **Do** wear layers of loose-fitting natural fiber clothing.
- **Do** understand the effects of wind chill and guard against exposure.
- **Do** use the buddy system. Act quickly to address cold weather injuries.
- **Do** check the weather report the night before and morning of.
- **Do** adjust the workload. Take breaks, warm-up, avoid over exertion.

- **Don't** ignore the warning signs/symptoms. (See page two.)
- **Don't** think cold-related injuries won't happen to you!
- **Don't** ignore the color of your urine. Dark yellow indicates you're dehydrated. Rehydrate immediately.
- **Don't** drive in extreme weather conditions or leave your vehicle when stranded or when in an emergency.
- **Don't** drink alcohol, and limit energy/sports or caffeinated drinks.



Common Types of Cold-Related Injuries: hypothermia, frostbite, and trench foot/immersion foot.

Risk Factors:

- Dressing improperly, wet clothing/skin, and exhaustion.
- Repeated/prolonged exposure

For Prevention, Your Employer Should:

- Train you on cold-related injury hazards and prevention.
- Provide engineering controls, such as radiant heaters.
- Gradually introduce workers to the cold; monitor workers; schedule breaks in warm areas.

Hypothermia is a medical emergency. Call **911** or your local EMS immediately.



Symptoms and Treatments

Hypothermia

Normal body temperature (98.6°F) drops to 95°F or less.

Mild Symptoms: alert but shivering.

Moderate to Severe Symptoms: shivering stops; confusion; slurred speech; heart rate/ breathing slow; loss of consciousness; death.

Treatment:

- Alert supervisor and request medical assistance.
- Remove the victim into a warm room or shelter.
- Remove wet clothing.
- Warm the center of their body first—chest, neck, head, and groin using an electric blanket, if available; or use skin-to-skin contact under loose, dry layers.
- Provide warm beverages to a conscious person.
- After their body temperature has increased, keep the victim dry and warm including the head and neck.
- If victim has no pulse, begin cardiopulmonary resuscitation (CPR).



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Frostbite

Body tissues freeze, such as hands and feet. Can occur at temperatures above freezing, due to wind chill. May result in amputation.

Symptoms: numbness, reddened skin develops gray/ white patches, feels firm/hard, and may blister.

Treatment:

- Get into a warm room as soon as possible.
- Immerse the affected area in warm—not hot—water.
- Warm the affected area using body heat; for example, the heat of an armpit can be used to warm frostbitten fingers.

Do not:

- Walk on frostbitten feet or toes, unless absolutely necessary, this increases the damage;
- Rub or massage the frostbitten area; doing so may cause more damage;
- Use a heating pad or alternative heat source for warming - affected areas are numb and can be easily burned.

Trench Foot (also known as Immersion Foot)

Non-freezing injury to the foot, caused by lengthy exposure to wet and cold environment. Can occur at air temperature as high as 60°F, if feet are constantly wet.

Symptoms: redness, swelling, numbness, and blisters.

Treatment:

- Remove shoes/boots and wet socks.
- Dry feet.
- Avoid walking on feet, as this may cause tissue damage.

Resources

- The National Institute for Occupational Safety and Health (NIOSH) www.cdc.gov/niosh/topics/coldstress
- Occupational Safety and Health Administration (OSHA) www.osha.gov/SLTC/emergencypreparedness/guides/cold.html
- Canadian Centre for Occupational Health & Safety www.ccohs.ca/oshanswers/phys_agents/cold_working