

Exposure to cold environments—whether natural or artificially cooled—can lead to discomfort, reduced performance, and serious health risks such as frostbite or hypothermia. Proper preparation, early recognition of symptoms, and effective response strategies are crucial for preventing cold-related injuries.

HAZARDS

- Cold Environments:
 - Outdoor winter conditions or indoor areas like refrigerated warehouses.
- Icy Conditions:
 - When walking on ice, there is an increased risk of slips and falls.
- Wind Chill and Air Movement:
 - Wind accelerates heat loss from the body, making it feel colder than the actual temperature.
- Wet Clothing:
 - Moisture from sweat or external water reduces insulation and increases heat loss.
- Cold Water Immersion:
 - Water conducts heat away from the body up to 25 times faster than air, drastically increasing the risk of hypothermia.
- Fatigue:
 - Working in cold environments can be physically draining, leading to slower reaction times and decreased alertness.
 - Tired workers are less able to generate body heat and may not recognize early signs of cold stress.



DID YOU KNOW?

According to the Canadian Centre for Occupational Health and Safety (CCOHS), thousands of cold stress incidents occur annually, many of which are preventable with proper preparation and protection.

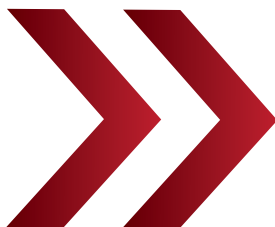
CONTROLS

- Relocate Work Indoors
 - Whenever possible, move tasks to a warm environment.
 - Use machinery/equipment where workers are in a heated cab.
 - Task rotation, alternate workers between cold and warm environments to limit exposure.
 - Plan winter outdoor work during the warmest part of the day.
- Warm Up Areas
 - Provide heated shelters where workers can take breaks and restore body heat.
 - Wind Barriers, such as walls or natural windbreaks, can be used to reduce wind chill.
- Cold-Compatible Tools
 - Equip workers with tools that can be operated while wearing insulated gloves or mittens.
- Ice Melt or Sand:
 - Ice melt can be effective at certain temperatures to remove or prevent ice from forming.
 - Sand is used at colder temperatures to provide additional traction when walking on ice.



- Training on cold stress illnesses:
 - Ensure workers can recognize and respond to symptoms of cold stress, such as shivering, confusion, or numbness.

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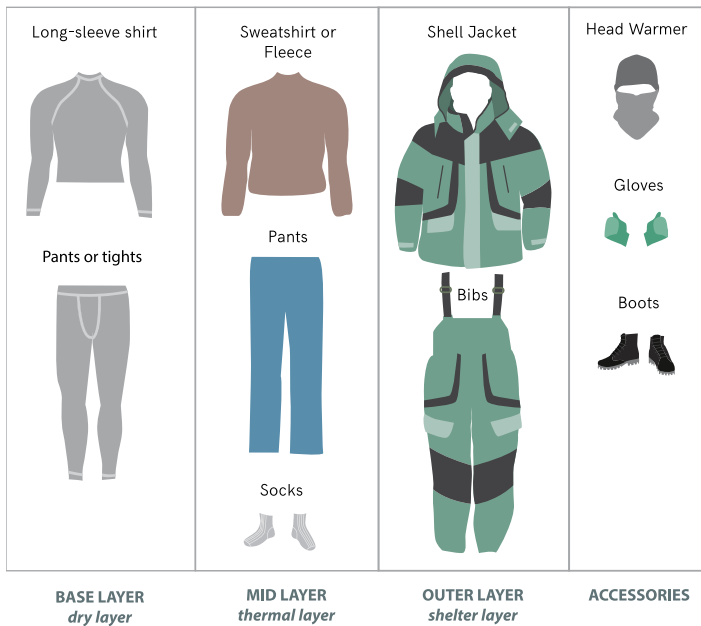


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- Pace the Workload
 - o Avoid overexertion, which can lead to sweating and increased heat loss.
- Hydration and Nutrition:
 - o Encourage warm, non-caffeinated fluids.
 - o Eat high-energy foods to help maintain body temperature.
- Layered Clothing System:
 1. Base Layer: Moisture-wicking fabric (e.g., synthetic or merino wool) that keeps skin dry.
 2. Thermal (Mid) Layer: Insulating materials like fleece or down to trap body heat.
 3. Shell (Outer) Layer: Windproof and waterproof outerwear to protect against the elements.



- Protect Extremities:
 - o Use insulated gloves, thermal socks, face masks, and hats or balaclavas to shield ears, nose, fingers, and toes—areas most vulnerable to frostbite.
- Winter Work Boots:
 - o Wear insulated, waterproof boots with slip-resistant soles.
- Ice Cleats:
 - o Create additional traction when walking on icy surfaces.

LEGISLATION

MANITOBA WORKPLACE SAFETY AND HEALTH REGULATION,

- Part 4.12: When a workplace or work process exposes a worker to conditions that may create a risk to the worker’s safety or health because of heat or cold, an employer must implement safe work procedures and control measures to ensure that the worker is provided with information, instruction and training in the symptoms of thermal stress and the precautions to be taken to avoid injury from thermal stress

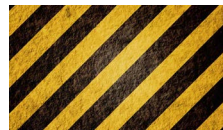
CANADA LABOUR CODE PART II

- Part 125 Duties of Employers Section-125(1)(n); ensure that the levels of ventilation, lighting, temperature, humidity, sound and vibration are in accordance with prescribed standards.

PREVENTION

Winter work doesn’t have to be unsafe if you’re prepared. By dressing appropriately, recognizing hazards, and following safe work practices, you can protect yourself and your coworkers from cold-related injuries. Preparation is your best defence: plan, stay alert, and take the time to work safely this winter.

NEED MORE INFORMATION? RPM CAN HELP!



[Hazard Identification & Risk Control](#)

Recognizing what could injure workers on the job is the first step to ensuring that they stay safe. This course will provide students with the practical knowledge necessary to identify, assess and control the hazardous elements of their workplace so they can do their part in preventing dangerous incidents.



[Slips, Trips, Falls, Sprains, and Strains](#)

Slip, trips and falls are some of the leading causes of injuries in the trucking industry. This course provides information on some of the causes and preventive measures relevant to trucking and applicable in the workplace or in daily life. We also talk about sprains and strains as a cause or effect of slips, trips, and falls.



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