

Our bodies are vulnerable to the weather conditions in which we work. Working outdoors in cold or wet weather puts employees at risk of cold stress, which can result in hypothermia. Hypothermia occurs when the body loses heat faster than it produces heat, resulting in significantly lower body temperature. Hypothermia can be fatal.

What's the hazard?

A hazard is something that may expose a person to a risk of injury. Below are some hazards that could lead to hypothermia. Which could occur in your workplace? Are there others?

Examples of workplace hazards that could contribute to hypothermia include:

- sudden drop in external temperature
- inadequate clothing
- wet clothing, including dampness caused by sweat
- immersion in cold water
- fatigue
- wind
- rain
- pre-existing medical conditions (including hypothyroidism, malnutrition, and diabetes)

What are possible symptoms of hypothermia?

Signs and symptoms of hypothermia are roughly divided into three categories:

Mild symptoms:

- shivering
- alert/responsive
- may complain about being cold
- exhaustion
- reduced motor control and impaired movement
- weakened pulse
- increased heart and breathing rate
- pale skin
- confusion and compromised decision-making

Moderate symptoms:

- decreased shivering (may still shiver, or shivering may have stopped)
- decreased heart rate (weak pulse)
- slow shallow breathing
- not alert
- may complain about being cold
- difficulty speaking
- significantly reduced mental capacity
- hallucinations, confusion or unusual behavior
- bluish skin
- muscle stiffness/impaired movement
- lowered blood pressure

Talk leader instructions:

- This is background information ONLY.
- Be sure to customize to your organization.
- Consider printing copies of this sheet for yourself and each participant.
- Lead a discussion with your workers about the materials on this sheet.
- Be sure to give real life examples whenever possible. Be open to questions.
- Conclude with a brief review of the main points or a summary based on the discussion.
- Fill in the name of your organization, location and the date on your sheet. Have each worker sign your sheet to confirm their attendance.
- File your sheet in your worker records to document the Safety Talk.

Severe symptoms:

- shivering stops
- won't complain of being cold
- significantly reduced blood pressure
- lung congestion
- muscle paralysis
- incoherent speech, lack of coordination, confused or unusual behavior
- glassy stare
- little to no breathing
- weak pulse
- unresponsive
- cold to touch
- cardiac arrest
- coma

How should workers respond to possible hypothermia?

If a worker is suspected of suffering from hypothermia, gently move the injured worker to a warm and dry location. If this is not possible, protect the injured worker from the weather using available materials. Encourage the worker to lie down. If outside, buffer the person's body from the ground using a warm surface, like a blanket or a coat.

All wet clothing must be removed. Cut the clothing if necessary. Cover the injured worker with warm and dry blankets. If blankets are not available, use coats. Also, cover the person's head, leaving the mouth and nose unobstructed.

If the injured worker is alert and capable of swallowing, provide that person with warm, sweet, non-alcoholic, non-caffeinated beverages.

Apply warm compresses to the neck, chest, and groin of the injured worker. If warm compresses are unavailable, warm water in a plastic bottle or a heated towel will suffice. Do not apply warm compresses to the person's limbs. Do not apply direct heat. Direct heat can damage skin, and in extreme cases can cause cardiac arrest.

Monitor the injured person's breathing. Start CPR if breathing stops.

If moderate or severe hypothermia is suspected, call 911.

How to prevent hypothermia in the workplace?

Ensure all employees at the workplace are trained to recognize the signs and symptoms of hypothermia. When working outside, prepare for current and potential weather conditions. Wear multiple layers of weather-appropriate clothing, ensuring your feet, hands, and head are well-insulated, and have a change of clothes ready should your initial clothing become compromised. Plan for regular breaks inside, or in temporary facilities erected as warming shelters. Ensure there are supplies on hand to care for someone who is hypothermic until paramedics arrive (particularly those in remote areas).

Required by law:

- Employers must do hazard assessments and identify any hazards in their workplaces, including hypothermia hazards.
- Employers must provide safety headwear equipped with winter liners in cold weather.
- Employers must ensure effective protection for the health and safety and reasonable thermal comfort of workers; such protection may include:
 - (a) frequent monitoring of thermal conditions;
 - (b) special or temporary equipment such as screens, shelters and temporary heating or cooling equipment;
 - (c) special clothing or personal protective equipment;
 - (d) hot or cold drinks, acclimatization or other physiological procedures;

- (e) limited work schedules with rest and recovery periods, changes in workloads, changes in hours or other arrangements for work;
- (f) any other appropriate measure.

Discussion questions:

1. What safety measures are required in your workplace to prevent hypothermia?
2. Do you have the right clothing to reduce your risk of hypothermia on your jobsites?

More information:

If you have questions about heat-related illness prevention in your workplace, please contact:

- Workers' Safety and Compensation Board, 867-667-5450 or 1-800-661-0443 or work.safe@wcb.yk.ca

Disclaimer

This resource has been prepared to help workplaces understand and comply with workplace health and safety laws. It is not legal advice and is not intended to replace the Workers' Safety and Compensation Act, S.Y. 2021, c.11 and Workplace Health and Safety Regulations.

Safety Talk record:
Print and complete this page or fill in electronically, then save as a record of your Safety Talk.

Comments/suggestions

Organization name

Safety Talk leader

Date

Safety Talk participants

print name

signature
