

SAFE WORK PROCEDURE

Cold Weather Outdoor Instruction

Location: <ul style="list-style-type: none">All LRSD Schools and Facilities		Approved By: Marlene Murray, Assistant Superintendant Written By: Ana De Sa Ferreira, WSH Officer Date Created: October 8, 2020 Date Revised: March 1, 2022	
Potential Hazards: <ul style="list-style-type: none">State of shockHypothermiaPossibly death	Personal Protection Equipment (PPE) or Devices Required <ul style="list-style-type: none">N/A	Additional Training Requirements: <ul style="list-style-type: none">N/A	

Cold weather can be an occupational hazard for many workers. All LRSD employees should refer to this procedure to help identify signs and symptoms that could lead to cold weather related injuries and how to protect themselves from elements of cold weather.

Outdoor instruction will be cancelled when the wind chill temperature reaches -27° as forecast by [Environment Canada at the Forks](#).

All staff must be in good health prior to attending school as per LRSD Safe Work Procedure [Staff Entry into Schools and Facilities](#).

1. **Clothing**

- Wear several layers of clothing, rather than one heavy layer, to prevent overheating and sweating. Sweating should be avoided to minimize the body's heat loss, which may require removing clothing layer(s).
- For the Body:*
 - Inner layer: light-weight polyester, polypropylene or wool. This layer should provide insulation and be able to "wick" moisture away from the skin to help keep it dry.
 - Insulating layer: fleece or wool.
 - Outer layer: rain, snow and wind repellent with provisions for ventilation. These layers should be easy to open or remove before you get too warm to prevent excessive sweating.
 - Wear a hat suitable for the conditions and can cover the ears to keep them warm.
 - Gloves or mittens suitable for the weather conditions.
 - Clothing must be dry. While the worker is resting in a heated area, perspiration should be allowed to escape by opening or unzipping clothing to ventilate neck, sleeves etc.
- For the Feet:*
 - Felt-lined, rubber-bottomed, leather-topped boots with removable insoles and socks.
 - Socks made of polypropylene will help keep feet dry and warmer by wicking sweat away from skin.
 - Always wear the right thickness of socks for your boots. If they are too thick, the boots will be tight and the socks will lose much of their insulating properties. The footwear also squeezes the foot which slows the blood flow and increases the risk for cold-weather related injuries.
- To prevent excessive sweating, remove clothing in the following order:
 - Mittens or gloves (unless you need protection from snow or ice)
 - Hat and scarf
 - Open jacket at the waist
 - Remove layers of clothing

2. Recognition of Cold Injuries

How fast a person's body cools in cold weather depends on:

- Clothing
- Air temperature
- Wind speed
- Moisture (rain or snow)
- Heat of the sun; and
- Activity while outside

Fingers and toes usually feel cold or numbness first. Shivering then sets in and is the body's way of warning that it needs to be warmed up. If a person does not find a way to increase their access to warmer conditions, they may become distracted by the discomfort they're experiencing and may increase the chances of a cold weather related injury.

Frostbite

Any exposed skin is subject to frostbite (skin tissue freezing) when temperatures fall below freezing. Symptoms of frostbite vary according to severity. Mild cases may produce prickling or burning sensations and discoloration of skin area. Skin can also feel unusually firm or waxy. Severe frostbite can produce extreme pain or none at all if nerve tissues are affected.

If you notice signs of frostbite on yourself or someone else, seek medical care. Other steps include:

- Get the person into a warm room as soon as possible.
- Unless absolutely necessary, do not walk on feet or toes that show signs of frostbite as this can increase the damage.
- Do not rub the frostbitten areas or massage it at all as this can increase the damage.
- Put the areas affected by frostbite in warm water – not hot – water. The temperature should be comfortable to touch.
- If warm water is not available, warm the affected area using body heat. For example, you can use the heat of an armpit to warm frostbitten fingers.
- Do not use a heating pad, heat lamp, or the heat of stove, fireplace or radiator for warming as affected areas of the body are generally numb and can burn easily since no sensation of overheating can be felt.
- Do not substitute these steps as a replacement for proper medical care.

Hypothermia

This occurs when the core body temperature drops from a normal value of 37° C to 35° C or lower. Initial symptoms include a sensation of cold and intense shivering followed by pain. As exposure time increases, the sensation of pain is reduced and overall numbness develops. Additional symptoms may include muscle weakness, confusion, slurred speech and drowsiness. Hypothermia can progress rapidly and should be addressed immediately.

If you notice any signs of hypothermia, take the person's temperature. if it is below 35° C (95° F) seek medical help immediately. If medical help is not immediately available try to warm the person up.

- Get the person into a warm room as soon as possible.
- Remove any wet clothing the person is wearing.
- Warm the centre of the person's body (chest, neck, head and groin) using an electric blanket, if available. Skin-to-skin contact is also a way to warm the individual. This can be done under loose, dry layers of blankets, clothing, towels or sheets.
- Warm drinks can help increase body temperature.
- After body temperature has increased, keep the person dry and wrap their body, including their head and neck, in a warm blanket.

- Get the person proper medical attention as soon as possible.

3. Warm-Up Guidelines

Regular warm-up breaks will follow the schedule below and will be based on wind chill temperatures reported by Environment Canada.

Wind Chill Temperature	Warm-Up Time	Outdoor Instruction Time
-7 to -15	10 minutes	1 ½ Hours
-16 to -22	10 minutes	1 Hour
-23 to -26	10 Minutes	45 Minutes
< -27	Classes to commence in designated indoor space	

Warm-up breaks should occur immediately if you have any of the symptoms of a cold injury listed above.

Warm-up breaks will occur in the designated indoor space. Remove your outer layer of clothing and loosen the remainder of the clothing to allow for sweat evaporation. Prior to redressing to go back outside make sure you have regulated your body temperature.

REPORT ANY HAZARDOUS SITUATION TO YOUR SUPERVISOR

Guidance Documents / Standards / Applicable Legislation / Other:

- Safe Work Manitoba <https://www.safemanitoba.com/Resources/Pages/thermal-stress-guide.aspx>
- Environment Canada Wind Chill Info https://weather.gc.ca/city/pages/mb-36_metric_e.html