



Baby It's Cold Outside!

Winter in Southern Alberta

Southern Alberta is privileged to experience the phenomena of Chinooks (warm westerly winds) to temporarily alleviate the bite of winters chill. However, our winters can still pack a vicious bite. Our temperatures often fall well below the freezing point. These frigid temperatures can be hazardous and life threatening, making it important to be prepared and stay protected.

Dressing For the Cold

To protect your skin from frostbite and to reduce the risk of hypothermia follow these tips;

- Dress in layers, with a wind resistant layer.
- Wear a hat or toque - a large portion of our body temperature is lost from our head.
- Wear mittens or insulated gloves.
- Keep your face warm with a scarf, neck tube or facemask.
- Wear warm and waterproof footwear.
- Cover as much exposed skin as possible – fingers, toes, nose and ears lose heat the fastest.

Wind Chill Explained

Canadian winter climate is influence by wind chill. Wind chill represents the temperature felt on our skin. . You may often notice temperature is listed at one value with an additional lower value listed beside it. For example the temperature is -24C but feels like -38. The wind chill is an important number to note as it helps us to determine the risk for frostbite and hypothermia.

How Cold?

Know the risk of cold injury related to wind chill:

0 to -9	Low risk – slight increase in discomfort
-10 to -27	Low risk – hypothermia if outside without protection
-28 to -39	Risk – exposed skin can freeze in 10-30 minutes
-40 to -47	High Risk – exposed skin can freeze in 5-10 minutes
-48 to -54	Very High Risk – exposed skin can freeze in 2-5 minutes
-55 and colder	Extreme Risk – exposed skin can freeze in less than 2 minutes

Hypothermia is always a risk when exposed to cold temperatures for long periods of time without adequate clothing or shelter from the wind and cold. Being wet substantially increases the risk for cold emergencies.

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Hypothermia

Hypothermia is a serious concern in our climate. Hypothermia occurs when the body loses more heat than it can produce and the core body temperature drops two or more degrees below normal body temperature (37C).

Stages of Hypothermia

- **Mild** - Shivering and slurred speech. Person will be conscious but likely have little interest in much. Some loss of muscle control may be noticed.
- **Moderate** - Violent shivering, clumsy and possibly stumbling. Skin may appear bluish. Person may be sleepy, confused or irrational
- **Severe** - Shivering will have stopped and person may be unconscious or close to losing consciousness.

What to Do

- If possible move the person out of the cold. If you cannot move indoors, protect the person as much as possible from wind and cold.
- Gently remove any wet clothing and replace with dry clothing. Cover any exposed skin from further heat loss.
- Warm the person gradually and slowly.
- If the person is unconscious handle very gently and lay the person down if possible.
- Call for medical help.

Frostbite

Frostbite occurs when skin or body tissues are exposed to freezing temperatures. It can be mild, only affecting the outer layers of tissue but may quickly progress. Frostbite can become very serious and can result in amputation in severe cases.

Stages of Frostbite

- **Superficial** – Skin has a white or yellowish, waxy appearance but is soft to the touch. Skin will be painful or have a burning sensation, followed by numbness.
- **Deep** – Skin has a white waxy appearance that will progress to a grey-blue colour as the frostbite progresses. Skin will feel cold and hard. There will likely be no feeling to the area affected.

What to Do

- Do **NOT** rub or massage the area – ice crystals in the tissue may cause more damage when rubbed.
- Warm the area **gradually** – use body heat or warm water. Avoid direct heat to avoid burns.
- Do not re-expose the area to the cold.
- Get medical help. Deep frostbite can be very serious and requires a further medical follow up.