

Snow and Cold Related Issues

What are they?

Snow and Cold related concerns can range from mild to severe. On the milder end, **wind burn** is when cold wind removes the top layer of oil from the skin. **Frost nip** occurs as a superficial injury caused by freezing the skin. **Frostbite** is a more severe form of frost nip where the tissue below the skin freezes as well. **Snow blindness** causes damage to the eyes when looking at snow on a bright day as the snow becomes highly reflective. **Hypothermia** is the most severe cold or snow related issue and is considered a medical emergency. This occurs when the person's body temperature drops too low (drops 1-7° C)

Signs and Symptoms

Wind burn, frost nip, frostbite and snow blindness appear as pain or stinging in the area, redness or numbness and the skin may be hard and solid to the touch. A burning sensation may occur after the skin warms, blisters may form and swelling of the tissue around the eyes along with pain, irritation and burning may occur with snow blindness.

Hypothermia symptoms include blue lips, vigorous shivering, numbness, lack of coordination or speech, confused or unusual behaviour, impaired judgement, shallow or absent breathing, loss of consciousness, and stiff body.

How are they caused?

Cold and snow related issues occur as a result of exposure to extremely cold temperatures for extended periods of time.

I've been exposed, now what?

Move affected person to a warm room and wrap them in blankets. Place the body part in water that is just above body temperature to slowly warm the frozen skin or tissue below.

When dealing with **frost nip or frostbite**, place affected parts in tepid part or use warm compresses (this may be painful). Warm areas gradually and do not break blisters. Seek medical attention if necessary.

For someone with **snow blindness**, place the person in a dark environment and use cool, damp cloths on the eyes to reduce the pain and burning. Again, seek medical attention if necessary.

Hypothermia requires removal of wet clothing, wrap the person in blankets and ensure their head, hands and feet are covered. Encourage drinking of warm fluids and provide food if they are able to eat. Place warm packs or bottles filled with warm water along the neck, underarms and groin. Be gentle. If you are unable to warm the person, seek medical attention.

Risks

Areas of the body that are commonly at risk are the ears, fingers, nose and lips. Not wearing the proper clothing for the weather (not enough layers, not wearing wind-resistant outerwear) is another risk.

Prevention

Wearing layers and clothing with tightly woven fabrics will protect against the cold and cold related issues. Protect vulnerable, exposed and areas that lose a lot of heat easily (head and trunk), take breaks from the cold and wear sunglasses. If you get wet, change into dry clothes as soon as possible.

What does Camp Kawartha do?

Camp Kawartha monitors campers closely for signs and symptoms of cold-related issues. Before all outdoor activities, we ensure that all campers are wearing appropriate clothing for weather conditions. In addition, outdoor activities are modified appropriately if there is an extreme cold alert.

References

Canadian Red Cross. (2011). Environmental Emergencies. In *First Aid & CPR manual* (pp. 147-159).

Guelph, ON, Canada: The Canadian Red Cross Society.

Health Canada. (2013, January 23). [Extreme cold](#).