

facts on

Cold Winter Temperatures: Children are at Risk

Children are at Risk

Cold winter temperatures cause a number of health risks. Those of us living in cold climates must be aware of the dangers and know how to prevent cold weather-related injuries in our children and ourselves. Infants and small children have the greatest risk of cold weather-related injury. Generally, the younger and smaller the child is, the more rapidly the body will cool.

The human body works to maintain a constant temperature. However, other measures, such as proper clothing for cold temperatures, help to control body temperature and prevent cold weather-related injuries. The two most common types of cold injuries are frostbite and hypothermia.

Frostbite

Frostbite occurs when body tissue freezes. Usually frostbite affects hands, feet and face.

Frostbite can be superficial, affecting the skin or tissue just under the skin, or deep, affecting the deeper tissue, nerves and muscles.

Signs of Superficial Freezing

- The person notices a tingling or pain in the area.
- Skin may appear white and feel hard.
- The tissue underneath will feel soft.

As soon as any of the signs of superficial freezing appear, it is very important to warm the area. Use body heat to warm the affected area.

Signs of Deep Freezing

- The frozen area has no pain and no feeling.
- The skin will appear white.
- The skin and tissue underneath will feel hard.



DO NOT

- Rub the area with snow because this will not allow temperatures to rise above freezing.
- Blow into a mitt or glove to warm fingers — the moist air will condense and make the fingers colder.

Prevention of Frostbite

When temperatures drop below freezing, the only protection from frostbite is adequate clothing including hat, footwear and mitts or gloves. Make sure that boots are not too tight, as tight boots can impair blood circulation. Make sure that clothing remains dry - change out of wet clothing as quickly as possible. Avoid contact with metal objects or fluids which do not freeze such as gasoline or antifreeze, because this contact will speed the freezing process. Be aware of the wind chill factor. Wind greatly speeds up the process of body heat loss.

For More Information

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The Saskatchewan Prevention Institute is supported by:

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Saskatchewan Abilities Council
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Hypothermia

Very Low Body Temperature

Clinical hypothermia occurs when the body loses more heat than it can produce and keep and the core body temperature drops below 35°C (95°F). Normal body temperature is 37°C (98.6°F). Any drop in body temperature must be treated promptly.

There are several stages in the hypothermic condition. These range from the early stage where the person may feel the need to warm up, to the critical state where the person becomes unconscious.

Hypothermia in children is not common, however, the effects are very severe. People who live in cold climates should be aware of what hypothermia is, how to prevent it and what to do if someone becomes hypothermic.

Signs of Hypothermia

- Early signs of hypothermia include feeling the need to warm up through increased activity and feeling tired.
- In mild hypothermia, the person may be unable to control shivering and movements may become uncoordinated.
- In moderate hypothermia, the person may exhibit stiff movement, slurred speech, tiredness, unusual behaviour and shallow breathing.
- In severe hypothermia, the person may exhibit slurred speech and increased lack of coordination. There may be denial of the problem. The person may slip in and out of consciousness.
- In critical hypothermia, the injured person may appear lifeless. There may be no noticeable breathing.

If hypothermia is suspected, it is necessary to get the person medical treatment as quickly as possible. Call 911 or an ambulance or transport the person to the nearest medical facility. Before medical help is available, use body heat to warm the person if possible. Handle the person gently to avoid tissue damage and to avoid forcing cold blood back to the heart. In other words, do not forcefully move stiff limbs. If the person is conscious, give warm fluids and sweetened foods. Do not give alcohol or other drugs as they may cause the body temperature to drop further.

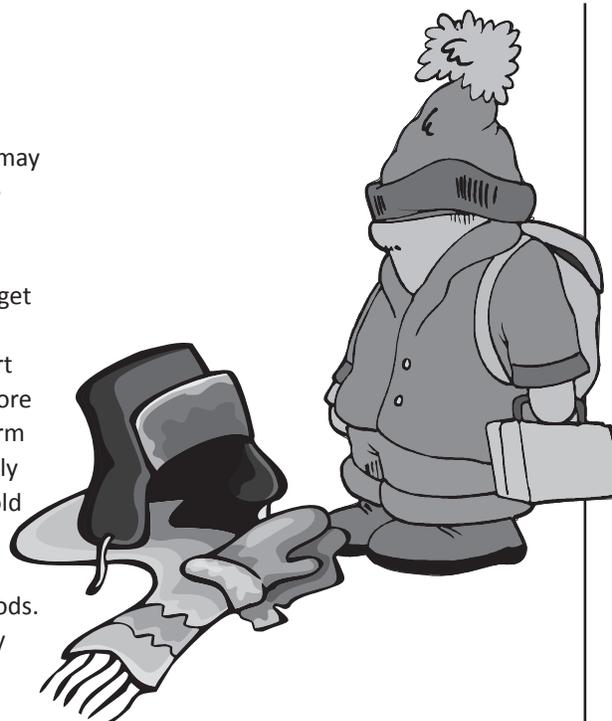
Prevention of Hypothermia

Knowledge of dangers, careful planning and sound decision making are the best prevention techniques for hypothermia. Generally, one should limit exposure to cold temperatures and dress appropriately.

Take the Following Precautions to Avoid Hypothermia:

- Cover the head. The most serious and greatest type of body heat loss occurs when the warmer body heat is lost to the colder surrounding air. At temperatures below 5°C, over half of the body's total heat production can be lost through a bare head.
- Avoid contact with cold surfaces. Body heat will transfer to the cold surface. This cold surface can include wet clothing.
- Protect the body with wind-proof clothing. Wear a hat to prevent rapid heat loss from the head. Wind removes the warm air which insulates the body.
- Avoid overheating by overdressing or overexerting. Any moisture next to the skin will cause body heat loss because the body's heat will be used to evaporate the moisture. Babies and young children can be easily overheated by being dressed too warmly for the situation, such as being bundled up while shopping, and then will cool quickly when taken out into the cold air. Layer clothing so that clothing can be adjusted to the temperature as needed. Layers of clothing can also help in keeping the person dry.
- Wear a scarf over the nose and mouth to minimize the heat loss due to respiration. Cold, dry air is breathed in and replaces the warm, moist air which is breathed out. Tuck the scarf inside the jacket.

Infants are totally dependent on adults for proper care in cold temperatures. Children may not be able to make judgments that are best for their safety. With proper precautions, cold temperatures do not have to threaten our safety. When faced with the prevention or treatment of cold injuries, prevention is the best choice.



Information for this fact sheet was adapted from:

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