

This alert is for those who work with people receiving services for mental health, substance use, and developmental disabilities. When winter temperatures drop significantly, staying warm and safe can be a real challenge. Frostbite and hypothermia are serious conditions that affect many vulnerable people, and each year we receive reports of frostbite and hypothermia.

Over the past two winters, OMHDD has received reports of ten deaths related to hypothermia and ten reports of frostbite requiring treatment. This is in line with numbers reported in previous years. In an effort to prevent future reports of hypothermia and frostbite in our clients, we are issuing this winter alert as a reminder of the dangers associated with Minnesota winters and to offer strategies for prevention and treatment.

What is frostbite?

Frostbite is a type of injury caused by freezing of the skin and tissues under the skin, which can occur whenever outside temperatures are 32°F or less. It leads to a loss of feeling and color in affected areas, which are usually areas of exposed skin with little insulation, such as the nose, ears, cheeks, chin, fingers, and toes. Frostbite can permanently damage the body, and severe cases can lead to amputation (removing the affected body part). A person who has frostbite may not know they have it until someone else points it out, because the frozen parts of their body have lost feeling.

Signs and symptoms include a feeling of pins and needles, followed by numbness. Affected skin will likely be cold, pale, and hard, and will turn red and be quite painful as the area warms up again. Changes in the color of an affected area might be difficult to see on darker skin. If the frostbite is severe, blisters and blackened skin may appear.

What is hypothermia?

Hypothermia is a serious condition that can happen when a person is exposed to cold temperatures for prolonged periods of time. It happens when a person loses body heat faster than they can produce it. Long exposures will use up the body's energy stores, causing a decrease in body temperature. This can affect the brain, causing confusion and difficulty moving. While hypothermia usually happens at very low temperatures, it can happen even at cool temperatures (such as 40°F - 50°F) if someone is wet from rain, sweat, or submersion. Elderly people, infants, those who spend long periods of time outside, and those who drink alcohol, use substances, or take certain medications are at increased risk for hypothermia.

Signs and symptoms include shivering, weakness, loss of coordination, feeling very tired, difficulty thinking, fumbling hands, memory loss, slurred speech, and drowsiness. Hypothermia can be fatal.

Risk factors for frostbite and hypothermia

- Cold temperatures, especially with high winds (wind chill factor).
- Poor circulation, as can happen with diabetes mellitus, peripheral vascular disease, Raynaud's phenomenon, or those who smoke.
- Altered mental status.
- Difficulty retaining body heat, which affects infants, elderly people, and those with limited mobility.
- Clothes that are not appropriate for cold weather.
- Lack of winter-appropriate clothing items, including gloves, a hat, a coat, and appropriate footwear.
- Wet clothes.
- Lack of an adequate shelter.
- Alcohol and/or drug use.

Preventing frostbite and hypothermia

- Be aware of the temperature before going out, including the wind chill factor. [National Weather Service Wind Chill Chart](https://www.weather.gov/safety/cold-wind-chill-chart) (<https://www.weather.gov/safety/cold-wind-chill-chart>).
- Wear several layers of warm clothing, as well as protection against dampness and wind.
- Wear a warm hat, since a lot of body heat is lost if the head is not covered. If gloves, hats, socks, or other clothes get wet, change them out as quickly as possible.
- When traveling in cold weather, carry emergency supplies such as extra warm clothing and a cellphone with an extra charger in case you become stranded.
- Try to have a plan for sheltering somewhere warm.
- If you have to be outside for a longer period of time, cover your ears, nose, and chin.
- Decisions on whether people should stay home below certain temperatures should be made on an individual basis.

First aid and treatment

- Get out of the cold and into a warm place and remove any wet clothes.
- Hypothermia is a medical emergency. If any signs or symptoms are noted and/or the body temperature is 95°F or less, call 911 for immediate medical care.
- If medical help is not immediately available, provide first aid. Soak frostbitten areas in warm (never hot) water - for 20 to 30 minutes. For ears, nose, and cheeks, apply a warm cloth repeatedly. Severe burning pain, swelling, and color changes are expected during warming. Do not rub areas with frostbite, and do not disturb blisters.
- Cover the person with warm blankets, making sure the head and neck are covered.
- Give warm drinks to replace lost fluids and help increase the body temperature, if the person is able to drink.
- Report extensive frostbite with blisters or the need for medical treatment to the Ombudsman Office as a Serious Injury.

Helpful links

- [Winter Weather - MN Dept. of Health](https://www.health.state.mn.us/communities/environment/emergency/natural/cold.html) (<https://www.health.state.mn.us/communities/environment/emergency/natural/cold.html>)
- [Cold Weather Safety](https://www.weather.gov/safety/cold) (<https://www.weather.gov/safety/cold>)