

# Recognize, treat two common hazards of frigid temperatures

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Winter can be especially hazardous to human health with frostbite and frostnip being among the more common hazards people are likely to encounter.

Frostbite and frostnip occur when the human body is exposed to extremely low temperatures for a period of time without the proper clothing for the conditions. Extreme cold causes the [blood vessels](#) of the body to begin to narrow and constrict, reducing [blood flow](#) to the extremities, such as ears, the nose, hands and feet.

"The two conditions are natural survival responses the body makes in order to keep your vital organs from becoming damaged by the cold," said emergency medicine physician Dr. Melanie Cerinich of Loyola University Medical Center in Maywood, Ill. "The body shifts warm blood from its extremities to its center where the organs most vital to survival are. Since the extremities receive less warm blood, they become more vulnerable to cold."

Frostnip is the precursor to frostbite and is far less serious. Frostnip commonly affects the fingers, face, ears, cheeks, toes and other areas of the body overexposed to the cold. People with frostnip will notice that the skin of the affected area is stiff, numb and white in color, but the tissue underneath will still be warm and soft.

"Treatment for frostnip is as easy as warming the affected area by rubbing, moving and covering it up with extra layers of clothing,"

Cerinich said. "You can also dip the frost-nipped area in warm - never hot - water until normal sensation returns."

Frostbite is the more serious form of frostnip. Frostbite occurs when parts of the body actually freeze. Mild frostbite is characterized by numbness in the frostbitten area. The skin may appear white or gray. Also, there may be some blistering of the skin.

"Treatment for mild frostbite isn't too dissimilar to treatment for frostnip," Cerinich said. "First, get out of the cold and warm the affected area and then cover it with extra layers of clothing. Dipping the affected area in warm water until normal sensation returns also can be done."

In severe cases of frostbite, the tissue underneath the skin can be frozen to the bone. Severe frostbite can affect not only fingers, the face, ears, cheeks and toes but even entire arms and legs. Frostbitten skin will be hard, numb and appear pale, white or gray. The condition can lead to gangrene, amputation and even death.

"People with severe frostbite should never rub or apply snow to the affected area. That will only increase injury to the tissue," Cerinich said. "The best thing to do is to get out of the cold as fast as possible and wrap the frostbitten area immediately in some warm clothing or warm it with your body. Then seek immediate medical attention."

Of course, limiting your exposure to extreme cold as well as wearing dry, layered clothing, a hat and mittens - which are warmer than gloves - are without a doubt the best ways to avoid frostnip, frostbite and other winter-related illnesses, Cerinich said.

Provided by Loyola University Health System

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