

Fending off frostbite in frigid temperatures

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Veronica Sikka, M.D., Ph.D, assistant professor in the Department of Emergency Medicine, VCU School of Medicine, works in the emergency department at VCU Medical Center.

She said recent freezing temperatures raise serious health concerns. In particular, [frostbite](#) is a prominent problem, she said, and some people who experience it don't even realize that it's happening. That's why she wanted to explain how it happens, when it happens and what can be done to avoid it.

What is frostbite?

Frostbite is a serious medical condition with localized damage to your skin from overexposure to [cold temperatures](#). Interestingly, frostbite tends to affect those parts of our bodies that are farthest from our heart, like the tips of our ears, nose and fingertips. This is because at temperatures below zero degrees Celsius (32 degrees Fahrenheit), our [blood vessels](#) start to constrict and shunt blood from our extremities to preserve our [core body temperature](#). This lack of blood flow to our extremities is what causes eventual freezing and death of our skin tissues.

How cold does it have to be to get frostbite?

Usually at temperatures below zero degrees Celsius (32 degrees Fahrenheit), but it is important to remember that strong winds can make temperatures above 0°C seem like they are below – this is the wind chill

factor, which is the number you need to focus on when looking at the weather.

What are the warning signs of frostbite?

So, there are three stages of frostbite: (1) cherry red skin color with pain, (2) white skin color with numbness and (3) white/gray [skin color](#) with numbness and a feeling of a firm, waxy or blistery skin. The earliest sign is pain so do not take that sign lightly. If you start to feel numb, then you know that your frostbite is progressing to later, more dangerous stages. You should seek immediate medical attention.

What are some safety tips for avoiding frostbite?

There are several things you can do to prevent frostbite and treat the early stages:

- Dress in layers and if your clothes get wet, change immediately. Wear mittens, socks (two), hats and scarves that cover the ears.
- Avoid alcohol. The common misconception is that taking a sip of alcohol will warm you up. On the contrary, it drops your body temperature. In addition, being intoxicated will inhibit your sensitivity to cold and reduce awareness.
- If you start to see early stages of frostbite, use warm (not hot) water or a washcloth to warm the area. You can also use warm blankets or just move to a warmer environment. A "pins and needles" sensation, severe pain, itching and even burning are all common signs when the affected area is rewarmed and blood starts to flow again.
- Do not rub or massage frostbitten areas in an attempt to rewarm them. That can actually be more harmful. Excessive movement of frostbitten tissue can cause ice crystals to form in the tissue

that will cause further damage.

- Avoid outdoor sports activities, such as camping or hiking in freezing temperatures.
- Don't smoke. Smoking constricts blood vessels and increases the risk for frostbite.

Provided by Virginia Commonwealth University

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