

Frostbite: Fear the frozen fingers

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With wind chills in the negatives, it may only take minutes for exposed skin and body parts to succumb to the cold. Frostbite and the milder frostnip most affects the fingers,



toes, nose, chin, cheeks and nose.

Frostbite occurs in stages, the first of which is called frostnip. In this milder form you skin turns pale or red and becomes very cold and numb. You may feel a prickling as the part gets waxy and hard-looking. Frostnip won't permanently cause damage.

However, if the affected extremity remains in the cold, more advanced stages ensue as ice crystals form in the body tissue. Your skin may actually feel warm at this point, but this can be a bad sign of worsening frostbite. Stinging, burning and swelling may develop and blisters may form.

In severe cases, deep frostbite can occur which affects not only the skin, but the underlying tissues. In this grim stage, the sensation of cold and pain may go away as increasing numbness settles in. The joints and muscles no longer work as the tissues start to die away.

There are certain risk factors for developing frostbite and these examples are:

- Exposure to wind or water

-Malnutrition

-Dehydration

-Peripheral vascular disease

-Diabetes

-Alcohol abuse

-Tobacco use

Prevention. Wear several layers of loose-fitting clothing. The air trapped in between layers acts as further insulation. The inner-most layer should be a wicking material, such as polypropylene, that will draw moisture away from the skin. The next layer should be of an insulating material such as wool or fleece. The outer layer should provide protection against wind and wetness. Damp clothing should be changed as soon as safely possible.

Don't forget to wear a hat or headband that covers your ears. And mittens are better at preventing frostbite than gloves. Foot and hand warmers are beneficial, so long as they don't make the area too tight.

Obviously it is imperative to limit your exposure to the cold. Mind the weather forecast and be prepared. In very cold and windy conditions, frostbite can occur in only minutes.

Don't drink alcohol if you're going to be exposed to the cold as that can cause you to lose heat faster and impairs your judgement. Stay hydrated and eat a well-balanced meal before heading out. Consuming warm beverages helps with warming.

Keep moving. Not if done to the point of exhaustion, but exercise keeps the blood flowing and helps keep you warm.

Finally, be prepared with emergency supplies and inform others of your plans. Should you get stranded it is important to have a charged cell phone.

Treatment. Get to a warm environment as soon as possible. Remove wet clothing. Do NOT rub frostbitten areas in attempt to rewarm them as this can cause more tissue damage. Similarly, walking on frostbitten feet can increase tissue damage.

Don't rewarm frostbitten body parts if there is a possibility of refreezing as this can make matters worse for the damaged tissue.

Using stoves or fires to rewarm frostbitten tissues is dangerous as the numb extremity may be too insensate to recognize a burn. The best way to rewarm is immersing the affected body part in water 98-102 degrees, preferably in a whirlpool. Don't use hotter water as that is more painful and doesn't improve the matter any faster.

Speak to your doctor about updating your tetanus shot as this malady has been known to occur with frostbite.

A word about ice packs. Frostnip and frostbite has also been seen following direct contact with freezing materials such as the spray of a fire extinguisher or ice packs. The latter is often used to treat swelling from joint sprains and injuries. It is important to place a cloth between the ice pack and skin. Direct application can cause harm. Furthermore, limit treatment intervals to 20 minutes.

Be especially careful with infants and older adults as they have a lessened ability to produce and retain body heat.

Until Springtime, keep warm thoughts!

Michele Brannan is a certified Physician Assistant and has been in practice in the Riverbend area for 10 years.

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