



Frostbite

What is Frostbite?

Frostbite is when parts of your body start to freeze. Usually its frozen skin, but it can be much deeper. The hands, feet, ears, nose and face most often suffer frostbite. It can be a serious condition. When the water in your blood and cells freezes, the ice crystals can cause permanent damage to your skin, muscle tissue, and blood vessels. Serious cases of frostbite have been known to cause so much damage that amputation is necessary.

What are the symptoms?

Mild frostbite, or frostnip, mostly affects the skin, which gets pale and starts to turn white. After re-warming, the symptoms usually disappear, though the skin may stay red for several hours.

In more severe cases of frostbite, the skin will start to look waxy and may turn completely white, grayish-yellow, or grayish-blue. When numbness and blistering begin, or when the area feels like wood, it is a very serious condition. The most serious type of frostbite is when even blood vessels, muscles, tendons, nerves, and even bones may be frozen. This can cause permanent damage even if treated properly and quickly.

Other symptoms that indicate frostbite are swelling, itching, burning and deep pain as the area is warmed.

How do I prevent Frostbite?

Avoid going outside during extremely cold weather.

When you do go outside, shield your face and other body parts from the cold wind and temperature by wearing scarves, earmuffs, gloves, and coats.

Wear several layers of clothing when it's very cold. The layers will trap warm air and help keep your body warmer.

Limit the use of alcohol and tobacco; alcohol causes your blood to cool more quickly, and tobacco can slow your blood flow in your fingers, toes, nose, ears, and face.

Be especially cautious about spending long periods of time in the cold when tired, intoxicated, or wet.

How do I treat Frostbite?

In the early stages (frostnip), frostbite may be treated at home. Get indoors, remove all wet clothing, and soak the area in warm—not hot—water until feeling comes back. Be careful, as numb parts won't feel the heat and can be severely burned by water that is too hot.

In more serious cases of frostbite, again the first thing to do is get indoors and get into dry clothing, then go the nearest hospital emergency room. If you can't get to an emergency room right away or have to wait for an ambulance, drink something warm and begin first aid treatment:

- Soak the frozen areas in warm water—about 100°F—or apply warm compresses for 30 minutes. If warm water is not available, wrap gently in warm blankets.
- Do **not** use direct heat such as fire or a heating pad; this could do more damage to the injured areas.
- Do **not** re-warm the area if you can't guarantee that it will stay warm. Re-warming and then re-freezing will cause even more damage.
- Do **not** rub frostbitten skin or rub snow on it. Again, this could cause more damage, as the ice crystals will tear the tissue around them.
- Re-warming skin may feel like it is burning. It may blister, swell, and turn red, blue, or purple. When the skin is pink and no longer numb, the area is thawed.
- Try not to disturb the blisters. If you have gauze, gently wrap the areas to prevent infection.
- Wrap the re-warmed areas in warm cloths to prevent refreezing, and try not to move thawed areas. If you have to move them, then be careful to avoid banging them against anything.
- Go to the emergency room as soon as possible.

As always, the best treatment is prevention. If at any time you discover a cold injury, stop and re-warm that area unless doing so puts you at greater risk. A “buddy system” is also useful, as you can watch each other's faces, cheeks or ears for signs of frostnip or frostbite. Be aware, be safe, and keep warm.