

Frostbite and Wind Chill Factors

1. Should central Virginians worry about frostbite? Isn't that something that only happens in the North?

Not really. Frostbite occurs when the temperature, wind chill, and exposure time combine to remove body heat resulting in the tissues freezing. Body parts most affected by frostbite are the nose, ears, cheeks, fingers, and toes.

2. Can frostbite be dangerous?

In bad cases, permanent tissue damage and loss of movement can occur. In the worst cases, a person can lose consciousness and stop breathing. Heart failure can happen in the most extreme cases.

3. Do some people have more risk of frostbite?

People who are older, overweight, have allergies or poor circulation are more at risk. Risk is heightened if you smoke, drink alcohol, and take some medications such as sedatives.

4. How do you know when you are at risk?

Frostbite can occur if you are in a cold area or touch an object whose temperature is below freezing. In many cases, people do not have any idea that it is happening. That's why you should be aware of the symptoms.

5. What are the symptoms?

First, you will feel uncomfortably cold, then numb. Victims may get a tingling or aching sensation. Hypothermia has similar symptoms which can ultimately result in unconsciousness and death. Hypothermia causes shivering, poor coordination, stiffness, drowsiness, slow or irregular breathing, slurred speech, cool skin and puffiness in the face.

6. How do you prevent suffering from frostbite?

Since the length of time that a person is exposed to cold temperatures has a cumulative affect on the possibility of frostbite, frequent breaks from outdoor activities should be taken.



Dress for conditions in layers of loose, dry clothes. The most effective mix is cotton or wool underneath with something waterproof on top. If you do get wet, change clothes to dry clothes immediately. Be sure to cover hands, feet, face, and head. A hat is critical because you can lose up to 40 percent of your body heat if your head isn't covered. Keep moving when you're in the cold. Take regular breaks in warm area. Go where it's warm any time you start to feel very cold or numb. Drink something warm, as long as it doesn't contain alcohol or caffeine.

7. If I am afraid I am becoming hypothermic or suffering from frostbite, should I apply a heat lamp or a hot water bottle?

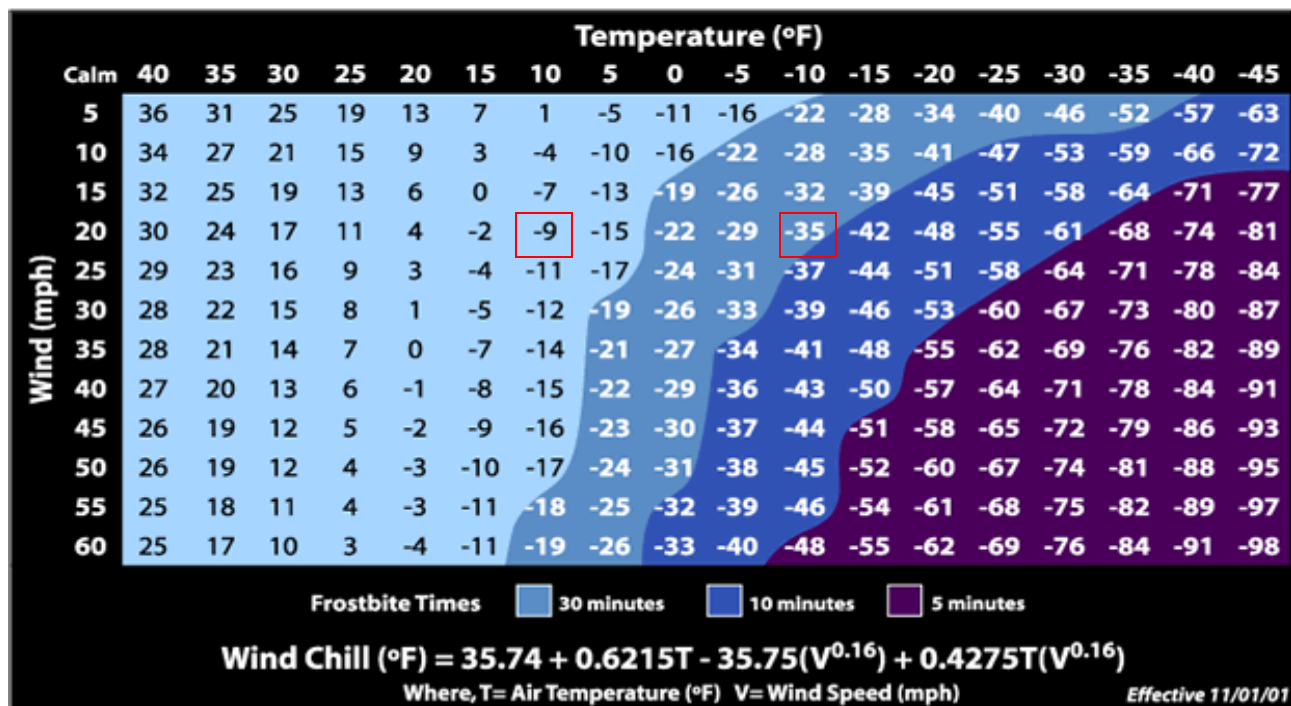
No: do not apply heat to the body part or rub it. Don't use hot baths, electric blankets, or hot water bottles. Do not go near a hot stove. Do not break any blisters. The first thing to do is get where it's warm. Get out of any frozen, wet, or tight clothing and into warm clothes or blankets. Drink something warm, decaffeinated, and non-alcoholic. Once the body part is warm, exercise it-with one exception: Don't walk on frostbitten feet.

8. Is there a way of knowing how much time I can spend outside, depending on the temperature and the wind chill factor?

The National Weather Service has created a Wind Chill Chart that plots how much time a person can safely stay outside according to the wind chill and the ambient temperature. If you must work outside during periods of cold and windy conditions, you can refer to this chart so that you can know how often you should take an indoor break. See chart below.



Wind Chill Chart



For example, if the temperature is 10° and the wind is 20mph, the wind chill factor is -9 ° and frostbite should not be a concern. However, if the temperature is -10° and the wind is 20mph, the wind chill factor is -35° and frostbite could occur within 30 minutes. Plan accordingly for your outdoor activities by dressing appropriately and taking indoor breaks. Don't let the cold get the better of you and have a safe winter season whether you are working or playing in the great outdoors.