

# YOUR TOES AND THE COLD!

February 16th, 2021

It is cold out here in the St. Louis/metropolitan areas! Along with the snow and ice, the below freezing temperatures impacts our bodies, especially if you work outdoors. With the prolonged exposure to the low temperatures, your feet is the first to feel the uncomfortable effects. To keep our bodies temperatures balanced, the blood vessels in our arms and legs constrict. This means the vessels become narrow and cause less consistent blood flow to our feet and hands. That is why our feet are one of the first parts of our body to get cold when temperatures are low.

There are four critical conditions to the foot that can occur to people who work outside for prolong periods of time. These conditions range from mild to severe. In some cases, the more serious problems may require amputation or rehabilitation.

## **FROSTNIP**

Frostnip can be defined as a mild form of frostbite. It occurs after minor exposure in below freezing temperatures. No actual freezing of the tissues occurs, resulting in no permanent damage to the feet. Typically, the symptoms of frostnip include minor prickly pain and skin color change to white or red. If you ever encounter frostbite, the solution for treatment is easy. Simply warm your skin with a warm towel.

## **FROSTBITE**

Frostbite is a step further than Frostnip. Frostbite occurs when a foot or other parts of the body is exposed to freezing temperatures under 32o F (0o C). Frostbite is described as the actual freezing of skin tissues that lead to various degrees of damage. There are four degrees of frostbite that determine the extent of severity of the burn.

1. First-Degree Frostbite – First degree is known for the early stages of frostbite. The stage following frostnip. Therefore, the symptoms are familiar to frostnip, including the change of color and minor sharp paint. Additionally, some other symptoms occur such as swelling, numbness which can lead to enhanced damage.
2. Second-Degree Frostbite – The second degree is extended damage from the first-degree and extends to the dermal layer to the skin and cause blistering.
3. Third-Degree Frostbite – The third-degree causes damage to the subcutaneous skin tissues, resulting in blisters to worsen and fill with blood.
4. Fourth-Degree Frostbite – Last, the fourth-degree is the most serious and damaging stage and could potentially result in amputation to the toes or the whole foot. This all depends on the extent of frostbite damage that has occurred. Treatment to save the toes and foot can be provided. For example; warming of the skin, wrapping the burns with dressing, pain medications, antibiotics, or whirlpool therapy.

## **IMMERSION FOOT**

Immersion foot is also widely known as trench foot, meaning prolonged exposure to cool, damp conditions. This condition is comparable to frostbite, however, Immersion occurs in non-freezing temperatures. Immersion was nicknamed “trench foot” during World War I when army soldiers had to walk for miles in wet and muddied areas on foot. Symptoms of Immersion include whitening or redness of the skin, minor sharp pain, swelling, and blisters. If symptoms persist, it can cause long-term damage such as numb sensations, or neuropathy. Treatment for Trench Foot can include cleaning and drying your feet, soaking your feet in 105° F water for 10 minutes, and not sleeping with socks on.

## **PERNIO**

Pernio is another foot condition caused by temperatures, Pernio is also known as Chilblains. It is an inflammatory skin condition caused by over exposure to cold temperatures. It is the formation of bumps and patches on your hands or feet due to abnormal response of the blood vessels. The symptoms include the areas becoming itchy, puffy, and painful, even after the skin becomes warm. This condition is more known to occur in women, then to men. Pernio usually clears up within two to three weeks, however, it may reoccur for years. Treatment for Pernio involves heating pads and creams to relieve itching and inflammation.

It is extremely vital to recognize early signs to Frostnip, Frostbite, Immersion, and Pernio and to seek medical attention if needed. Ensuring you receive the proper medical treatment or even simple at home treatments can determine the extent of the condition.



[www.nextstepfootdocs.com](http://www.nextstepfootdocs.com)