



ORTHOPÆDICS

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“Jack Frost Nipping at your Toes”



Rachel Cisko, DPM

Cold weather has more effects on your feet than you may realize. Whether it be the frigid cold temperatures or the extreme dryness, your feet can pay the price. Therefore, extra care needs to be taken to “keep you on your feet.” Some of the more common foot ailments brought on by the chilly temperatures include THE 3 F’s:

- Flaky skin caused by extreme dryness or xerosis
- Foot fungus
- Frostbite

Flaky Skin

Chicagoland’s winter months bring about drier air leading to a lack of moisture within the feet. This can produce flaky skin and cracks or deep painful fissures, especially in the heel area. Despite the soothing feeling of warm water soaks after cold weather exposure, soaking, in general, dries out the skin; therefore, frequent and prolonged soaking of the feet should be avoided to limit dryness.

To keep the feet supple, OAD Orthopaedics’ podiatric physician and surgeon, Rachel Cisko, DPM, recommends moisturizing daily by applying lotion or cream to moist skin. Do not moisturize between toes, however. Occasional pumice stone usage can be

helpful especially for people who develop thick calluses and cracks on the bottom of the feet.

Foot Fungus

Foot fungus caused by an organism known as “fungi” feeds off dry and dead tissues and subsequently can be prevalent in the wintertime. The wearing of heavy socks and closed shoes causes feet to sweat more and creates a moist environment. These “fungi” proliferate and grow better in warm, dark, moist places such as your shoes. Fungus is also more common around swimming pools, showers, and locker rooms used by many athletes, hence the term “athlete’s feet”. In medical terms, a fungal infection of the skin is known as tinea pedis.

The signs and symptoms of athlete’s feet can include itching, burning, scaling, inflammation, and blisters and most often appear between the toes or on the soles of the feet. In severe cases, one can experience cracking, pain, bleeding with a subsequent bacterial infection, and odor.

Fungus can infect the skin or spread to the toenails. This can produce a thickened, discolored, disfigured, brittle nail plate that can also have a foul odor. Fungal toenails are initially a cosmetic problem; however, without treatment, the condition can create additional pressure within shoe-gear causing irritation and pain. There is also the potential for ingrown toenails and subsequent bacterial infection. Since nail fungus can be ongoing, it is recommended to consult a podiatrist for specialized care.

Fungal infections can be treated in a variety of ways including, but not limited to, creams, gels, lacquers, oral antifungals, and regular debridement (i.e.,

the removal and thinning of fungal areas) by a trained professional. Sometimes, these infections can be difficult to treat due to slow growth, limited blood supply, nail thickness, and duration of infection. Typically it can take six months to one year to re-grow a healthy nail plate.

Dr. Cisko offers the following tips for the prevention of foot fungus:

- Keep feet clean and dry, especially between toes
- Avoid walking barefoot, especially in community/public areas
- Wear socks that repel moisture and keep feet dry, changing often if you sweat heavily
- Avoid rubber or plastic footwear
- Wipe out shoes or apply antifungal spray

Frostbite

Despite the freezing rain, howling wind, and deep snowfall, sports enthusiasts are still determined to brave the elements, unfortunately, increasing the chances for frostbite. Frostbite occurs when water within the body’s cells form ice crystals. These ice crystals can burst and destroy cells and tissues. Also, as the temperature decreases, the blood vessels in the extremities constrict, decreasing the blood supply within the feet. This results in greater susceptibility of cold injury. During exercise, the body loses more heat, reducing the body’s temperature. Depending on the wind, even temperatures as high as 30°F can lead to dangerous consequences. At wind chills of less than 18°F, cold injury to hands, feet, ears, and nose can occur in as little as 15 minutes.

According to Dr. Cisko, the damage of frostbite varies depending upon the depth of injury. Factors that contribute to



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cold injury include temperature, length of exposure, wind (wind chill factor), humidity, high altitudes, wetness of the body, wetness of clothes and shoes, certain medications, nicotine, and alcohol intake.

The following people are most susceptible and need to take extra precautions:

- Elderly
- Young
- Diabetics
- People with impaired circulation
- Outdoor sports enthusiasts
- Construction workers
- Homeless
- Smokers

Frostbite symptoms may vary depending upon the depth, beginning with numbness, burning, white patchy skin, and peeling. As the extent of frostbite injury increases one may experience swelling, increased numbness, red/purple discoloration and blisters. At end stage, the skin becomes waxy, leathery and hard with blood-filled blisters.

Treatment for frostbite begins with removing all wet garments and re-warming the area as quickly as possible by immersing the area in warm water (100°-104°F) until color returns. (However, it is important not to thaw area if there is a chance for re-freezing as this may cause more damage.) Re-warming with heating pads, electric blankets, or fire is to be avoided.

Once the area is warmed, it should be cleaned and dried well. Any blisters should be left intact and covered with sterile or clean bandages. The area

should not be rubbed or aggravated as this can increase injury.

The immersion process may cause quite a bit of pain and require over-the-counter anti-inflammatory medication such as ibuprofen (Advil or Motrin) or naproxen (Aleve) taken as directed on bottle. Seek professional medical attention if after 24 hours the area remains discolored and cold, pain persists, or blisters burst as antibiotic medication may be warranted. Treatment can be a slow process and sometimes it is necessary for a physician to remove any dead tissue or areas that have not had blood supply restored.

Preventing Frostbite

- Layer up, and always cover your head!
- Wear gloves, layer socks
- Avoid tight fitting shoes and boots
- Synthetic fibers against skin “wick away”/repel moisture
- Stay dry
- Stay hydrated
- AVOID nicotine and alcohol

Dr. Cisco reminds that the winter months can cause various harmful effects on your feet. These effects can hinder mobility and cause extreme discomfort. Our feet suffer the burden of the multiple activities we perform every day. From doing our daily duties to dancing the night away, an immense pressure is repeatedly put on our feet. Proper precautions should be taken to avoid the painful situations described above. We must remember that our feet help take us

everywhere we go. So during the winter, take the time to care for your feet and avoid having old “Jack Frost” nip at your toes. Be good to your feet and they will be good to you.

This article was submitted by Rachel Cisco, DPM, OAD Orthopaedics' podiatric physician and surgeon. Dr. Cisco provides family-oriented medical and surgical treatment of foot disorders, including care for wounds, diabetic feet, arthritis, fractures, and sprains. General foot conditions such as heel pain, bunions, corns, calluses, hammertoes, and ingrown toenails are among Dr. Cisco's podiatric specialties. OAD Orthopaedics is a twenty-physician group specializing in shoulder, knee, hip, hand/upper extremity, spine/neck, foot/ankle, sports medicine, total joint replacement/reconstruction/revision, and physiatry. In addition, physical, industrial, occupational and hand therapy services; on-site diagnostic testing/MRI; workers' compensation/occupational health services are available. OAD Orthopaedics provides comprehensive orthopaedic care and services at convenient office locations in Warrenville, Naperville, Wheaton, Carol Stream, Bartlett, and Winfield. For appointments and information, call 630-225-BONE (2663) and visit online at www.OADortho.com.

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