



Central Office: 505 Silas Deane Highway, Wethersfield, CT 06109 Phone (860) 721-2822 Fax (860) 721-2823
Berlin: 240 Kensington Road, Berlin, CT 06037 Phone (860) 828-7017 Fax (860) 828-9248
Newington: 131 Cedar Street, Newington, CT 06111 Phone (860) 665-8586 Fax (860) 665-8533
Rocky Hill: 761 Old Main Street, Rocky Hill, CT 06067 Phone (860) 258-2770 Fax (860) 258-2767

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Winter Activities Require Planning to Be Safe

To many, the holidays begin an unofficial start to winter activities. As our knowledge of the benefits of exercising increases each day, more and more people are looking to winter sports as a way to get and stay fit while having fun. A number of opportunities await the adventuresome – hiking, snowshoeing, and camping are gaining popularity as winter activities, joining ice skating, skiing, and sledding or tobogganing. However, no matter what the season, injuries can occur.

When considering a winter activity, keep in mind that all winter activities share the additional risk of resulting in a cold weather-related injury. These injuries can occur even in weather that is not freezing, especially if there is a strong wind or if the body becomes wet from immersion, exposure, or perspiration. The likelihood of suffering from a cold weather injury, as well as the severity of that injury, is related to both temperature and the length of time of exposure to cold, wind, and moisture.

Cold weather injuries can be classified into two groups: those in which body tissue freezes, and those in which the body tissue does not freeze. Injuries in which tissue does not freeze include chilblains, trench foot, and hypothermia.

Chilblains is an injury that can occur even several hours after exposure to extreme cold has occurred. It is a somewhat common condition characterized by reddish or purplish areas of swelling that are itchy and or painful. Sometimes, blisters or open sores may form. It usually affects toes, fingers, nose or ears, but other parts of the body may be involved as well, and can last from a few days to several weeks. Usually, there is no permanent damage, but the affected areas may remain particularly sensitive to cold. While most people can treat chilblains at home, the development of open sores or signs of an infection indicate the need to seek medical attention. It is not uncommon for some people to become susceptible to multiple recurrences, and women and young children are most at risk.

Another cold weather injury is trench foot, or immersion foot. This condition is caused by prolonged exposure of the feet to cool, wet conditions, causing tingling pain, numbness, and swelling. The foot becomes red at first, then becomes pale and mottled, progressing to dark purple, grey or blue. It is a more serious condition than chilblains, often causing permanent damage to the tissue as well as the circulatory system, and even can result in the loss of the foot. Trench foot may affect the heel, the toes, or the entire foot, and medical assistance is always recommended.

Besides injury to specific body parts, cold weather can also affect the entire body. Prolonged exposure to cold temperatures outdoors, being immersed in a cold body of water, or even living in inadequately heated quarters can cause a dangerous drop in the core body temperature called hypothermia. Symptoms include sleepiness, glassy eyes, slow breathing, listlessness, confusion, slurred speech, slow pulse rate, paleness and rigid muscles. Violent shivering may occur in the early stages, and then disappear later. As the condition progresses, unconsciousness, convulsions, or paralysis may occur. Although most of us associate shivering with being cold, hypothermia inhibits the ability to shiver; in fact, people suffering from hypothermia may not even be aware that they are cold. Left untreated, hypothermia can lead to cardiac arrest and death. If hypothermia is suspected, immediate medical attention is required.

Conditions in which body tissue freezes include frostbite and some eye injuries. When participating in an activity without goggles in strong winds, the cornea may freeze. If this happens, a warm hand or compress over the closed eye will provide the required rapid rewarming, but eye patches will be needed for a day or two.

Also, eyelashes may freeze together; this can be resolved by putting a hand over the eye until the ice melts.

When frostbite occurs, tissue in a specific area of the body is frozen, resulting in pain, burning, numbness, and/or tingling. The skin may turn hard and white, it may itch, and blisters or peeling may occur. The skin may also become firm, shiny, and turn grayish-yellow. The most common areas that are likely to be affected are the ears, nose, fingers, and toes. Superficial frostbite injures a partial thickness of the skin, while deep frostbite involves the skin and the underlying tissue and muscles and is more serious, requiring medical attention. When camping, it is important to get to a warm shelter as soon as possible; do not attempt to rewarm the frost bitten area until you are out of the cold for good.

The risk of developing any of these conditions can be greatly reduced by dressing in layers with wind and water proof surfaces on the outer layer, keeping apprised of weather conditions, drinking plenty of fluids while avoiding alcohol, drugs, and caffeine, and eating a well-balanced diet. Try to have an extra change of clothing, avoid tight-fitting clothing, and wear lightweight clothing that can insulate, yet breathe, and is fast drying. Be sure any required gear is in good condition, and use the buddy system.

To learn more about winter outdoor activities or cold injuries, visit www.backpacking.net, www.cdc.gov, or www.medicinenet.com. Additional information about this or other public health concerns is available at the Central Connecticut Health District at www.ccthd.org (860-721-2822).

