

Hypothermia

Hypothermia is a common occurrence in the winter, and affects the general population, not just athletes. Hypothermia occurs when the core temperature of the body (normally 98.6 degrees Fahrenheit), drops below 94 degrees.

The body maintains a normal temperature by burning fuel (food), which is dependent on consumption of adequate calories, thus burning of calories creates heat. Body heat is also produced by exercise or by the body's shivering mechanism.

Body Heat can be lost in four different ways; conduction, convection, radiation and evaporation. Loss by conduction requires physical contact with a cooler object and can occur while sitting on a cold surface. Heat is lost by convection when the warm shell of air surrounding the body is destroyed and can occur with a high wind chill factor. Radiation is the transfer of heat from one object to another. On a still cold day, if a person neglects to wear a hat, up to 50% of body heat can also be lost through the scalp through radiation. Body heat can also be lost by evaporation of perspiration from the skin surface.

Signs and Symptoms of Hypothermia

When the temperature regulating mechanisms of the body are unable to maintain the core temperature at normal levels, hypothermia is the result. This begins as a sensation of coldness and shivering. These symptoms can progress to fatigue, confusion, severe shivering, and impaired sensations as mild hypothermia develops into severe hypothermia.

This situation can be handled by getting out of the wind and cold if at all possible. More clothing or dry clothing can be applied. Rest, intake of warm, sweet fluids and caloric snacks are indicated. A slow warm-up exercise period following the rest prepares the body to resume cold weather activity.

If these steps are not taken, the body may progress into severe hypothermia, when shivering ceases and loss of consciousness ensues. The pulse slows significantly and a victim may appear to be dead. If this happens to a companion, do not try to warm him up or resuscitate him, but do not allow him to get any colder. Seek medical attention immediately



Other Cold Weather Facts

In order to prevent other cold weather complications, an adequate intake of fluids is necessary. Dehydration can occur in the winter as well as the summer, due to the loss of body fluid by perspiration.

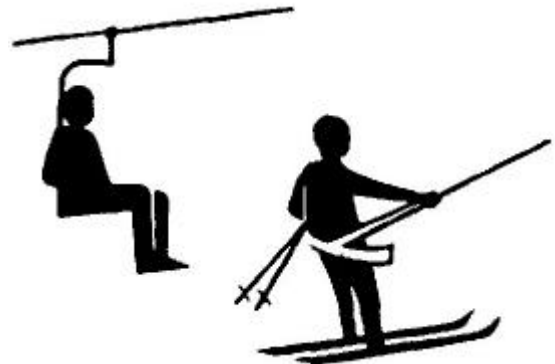
The body's response to cold is to constrict peripheral circulation, causing cold-induced diuresis. This allows more body fluids to be lost through the kidneys and urination, accounting for the frequent feeling of having to go to the bathroom when out in the cold.

A common misconception is that the intake of alcoholic beverages will hydrate the body, as well as warm it. Alcohol, however is a diuretic and actually can cause you to lose more body fluids than you have taken in. It also dilates the peripheral vessels, allowing the body to lose more heat. Cigarette smoking also has this affect and is inadvisable in cold weather.

Frostbite is the actual freezing of water within the cells of the body, and usually involves the tip of the fingers, toes, ears and nose. Pierced earring should be avoided in cold weather conditions. The cold metal conducts heat from the skin and increases the chance of frostbite.

First degree frostbite is characterized by a waxy, white appearance of the skin accompanied by numbness. When the skin warms, a person with mild frostbite will experience a burning sensation in the affected area.

The key to preventing frostbite is to keep the part warm and dry.



Keeping Your Feet Warm and Dry

Dr. Walter Hampton, a family practitioner in Simsbury, Connecticut, suggests the following program for keeping the feet warm and dry.

If your feet perspire, spray them three times a day for two weeks before starting cold weather sports with an "ultra dry" type deodorant that contains aluminum subactate. Once you start your activity, continue to spray feet once a day.

Wear a polypropylene sock next to your skin with a wool sock over it, followed by your shoe or boot.

If your feet do get cold and numb, wiggle your toes. If you can feel your boots, your feet are alright and continuing to wiggle your toes will help to warm them. If you can't feel your boots, further measures to warm your feet should be taken.