



Old Man Winter In The South:

PREVENTING AND TREATING COLD-RELATED INJURIES

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Whether you are a landowner, work outside, or just enjoy the great outdoors in wintertime, you could be the victim of hypothermia or another cold-related injury. Hypothermia, although usually associated with cold climates, can set in even here in the warm climate of Alabama. If you spend enough time outdoors you can be susceptible to cold injuries such as hypothermia, frostbite, or immersion foot.

HYPOTHERMIA

Hypothermia happens when your core body temperature falls below normal (usually around 95 degrees F). This can easily happen when you are exposed to cold winds or wetness (especially in water) – even in our Southern climate. Your body automatically begins to shiver to re-warm itself. As your energy is used up to keep warm, you may reach a point where your body will be unable to re-warm itself. If left untreated, your body will gradually shut down and you can die. Humans are warm-blooded animals who maintain a relatively constant internal temperature regardless of the environmental temperature. We do this by producing heat internally by metabolizing food and by adjusting the amount of heat we lose to the environment.

Human cells, tissues, and organs operate efficiently only within narrow temperature limits. If our temperature rises two degrees F above the normal of 98.6, we become ill. If it rises seven

degrees F, we become critically ill. If your temperature decreases two degrees F, we feel cold. A seven-degree F decrease puts our life in jeopardy. The primary way a body can lose heat is through the skin.

The very young, old, and sick have a greater chance of being a victim of hypothermia. The National Institute of Aging estimates that of the 28,000 people hypothermia kills every year, the largest percentage are older people. Some medications, problems with circulation, and certain illnesses reduce the older person's ability to resist hypothermia.

SYMPTOMS

Some of the symptoms of hypothermia to look for include:

- * **Shivering** — an early sign of hypothermia, shivering starts mildly, but can become more severe and finally convulsive before ceasing.
- * **Slurred speech.**
- * **Loss of coordination** — this might begin as difficulty in doing simple tasks such as tying shoes or buttoning a shirt. It can also include stumbling or falling.
- * **Confusion** or decrease in decision-making ability.
- * **Apathy** (the victim not caring about his or her own needs, etc.) and lethargy.
- * **Irrational behavior.**

TREATMENT

If you suspect someone may be a victim of hypothermia the best thing to do is seek medical help **immediately**. This is especially true if the victim is unconscious. If the victim *is* conscious you can do the following things after medical help has been requested.

- * Gently move the victim to shelter. Their hearts are fragile and sensitive to jarring.
- * Remove wet clothes and replace them with warm dry ones, including head and foot coverings.
- * If the victim is alert enough to hold a cup, give warm (not hot) liquids to drink. Sugary drinks, such as warm Tang or Jell-O, are especially helpful. Never give food or drink to an unconscious victim – they may choke.
- * If the victim is conscious and able, help them to walk. Moderate exercise will help to generate heat.
- * If the victim is unable to exercise or is unconscious, place the victim in a sleeping bag or warm blankets to help speed re-warming. Insulate the sleeping bag or blankets with a sheet of plastic above and below. Getting in the sleeping bag or blanket with the victim will help.

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AVOIDING HYPOTHERMIA

Preventing hypothermia is a lot easier than treating it. There are things you can do to avoid hypothermia. It is very important to guard against dehydration, fatigue, cold winds, and wet clothes.

- * Dress warmly and in layers. Be sure to wear a hat with ear protection, gloves, and warm socks.
- * Stay dry.
- * Protect yourself from wind, rain, and snow. You can do this by wearing clothes that block wind and moisture.
- * Eat high-energy snacks and drink plenty of water.
- * Do not over-exert.

FROSTBITE

Frostbite occurs when tissue is frozen. It acts locally on areas such as fingers, toes, and ears. It is not life threatening, but tissue damage from frostbite can result in loss of function or, in serious cases, gangrene and amputation. Low temperatures, contact with moisture, and wind chill accelerate heat loss and increase the likelihood of frostbite. Some of the causes of frostbite include: cold stress, low temperatures, wind chill, moisture, poor insulation, contact with super-cooled metal or petroleum products, interference with circulation of blood (wristwatches, tight fitting or laced boots), tight clothing, sitting in a cramped position for an extended period of time, and dehydration.

DEGREES OF FROSTBITE

- * First degree: ice crystals form on the skin.
- * Second degree: skin begins to feel warm, even though it is not yet defrosted.
- * Third degree: the affected skin turns red, pale, or white.
- * Fourth degree: pain lasts for more than a few hours, and you may see dark blue or black areas under the skin.

Treatment for frostbite is best done in a hospital. If you suspect you have frostbite, go to your local emergency room for treatment.

IMMERSION FOOT

Immersion foot is a local, non-freezing cold injury that occurs in cold, wet conditions, usually in temperatures of 30 – 40 degrees F. At least 12 hours exposure to cold wet conditions is necessary to produce the injury. People have contracted immersion foot in hip waders and vapor barrier boots. Dry socks and feet provide total protection from this cold injury.

This injury causes a numb or “pins and needles” feeling in the extremity. The skin will feel cold and mottled. When re-warmed the foot becomes red, dry, and painful. An immersion foot should be re-warmed slowly at room temperature. Elevate the feet to reduce the swelling and avoid walking.

COLD-RELATED INJURIES TO ANIMALS

As with humans, animals are also susceptible to hypothermia and other cold-related injuries.

Hypothermia is most likely to affect animals that lose body temperature quickly, especially puppies, cats, small breeds of dogs; shorthaired, older, or injured animals; or any animal that has not been properly acclimated to cold temperatures.

Treatment for hypothermia in animals is the same as that in humans, by warm-

ing the body. For mild cases, this can be done by external means such as hot water bottles or heating pads (not applied directly to the skin). A hair dryer can be directed toward the victim for passive warming. For severe cases or if the animal is unconscious, seek veterinary assistance immediately.

Animals can also be victims of frostbite: usually the pads, toes, tail, scrotum, and ear tips. A short-eared dog is more susceptible to frostbite than a long eared dog. Frostbite tissue on animals appears leathery and the hair may appear white. These areas should be handled gently. The extent of the damage may not be obvious for several days. If any tissue does not start to improve three to four days after re-warming, you should contact your veterinarian. This tissue may have to be amputated to prevent gangrene.

As with humans, preventing cold-related injuries in animals is easier than treatment. A healthy adult dog can become acclimated to cold weather so that it may withstand below-zero outdoor temperatures, if kept in a **well-insulated house**. In cold, windy, wet weather the best thing to do for your outdoor animals is bring them inside a protected, heated, dry area.

Hunting dogs that have adapted to cold temperatures over time can hunt for hours without being adversely affected by the cold, especially if they keep moving and are not allowed to rest on the frozen ground for an extended period of time. 🐾

RESOURCES:

<http://www.crh.noaa.gov/riw/frostbit.htm>

<http://www.nols.edu/Publications/FirstAid/ColdInjury.html>

<http://outdoors.org/activities/hiking/hiking-hypothermia.html>

<http://www.discounts4pets.com>

<http://www.espomagazine.com/vet/jan97.htm>

<http://www.lynsack9.co.uk/Hypothermia.html>