

Winter Outing Health and Safety

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Outing is a very big part of Scouting, and the winter months in the Upper Midwest can present our youth and their leaders with some most memorable outing experiences. Our winter outings by the nature of the types of activities as well as the sometimes cold, harsh environment can pose some risk and danger to everyone involved. However with proper planning, supervision, and adherence to basic safety standards these outings can be pleasurable and make long lasting impressions on participants.

Hypothermia is a condition in which the body's core temperature drops below the normal 98.6°F, and can occur in the wilderness setting as a result of inadequate protection from the cold, inadequate food intake for the metabolic needs of extreme cold, and inadequate fluid intake leading to dehydration.

Proper outfitting for winter activities is essential. It is usually best to dress in layers with the innermost layers being materials that wick moisture away from the skin. Moisture in contact with the skin will hasten heat loss. Next comes the insulating layers, a layer of material where air can be trapped and heated by the body, helping to prevent loss of heat. The outer shell should be made of materials which keep moisture out (rain and snow). Additionally, the outer shell should block permeation by wind which would rob the insulation layers of the warmth they are trying to preserve. Care should also be taken to cover and insulate areas of end circulation such as fingers, toes, ears and nose. Frostbite is the risk in these body areas and items such as hats, scarves, mittens and socks will help to protect the tissues.

If camping outdoors, make sure to build shelters which will help to insulate against extreme cold and wind. Wind carries away heat by convection and can result in a significant amount of temperature loss. Protection is essential.

Outdoor activities in the extreme cold require a large number of calories in order to sustain body heat and provide energy to partake in the activity at hand. Well planned high calorie meals would be appropriate with additional high energy snacks throughout the day. Extreme cold with a high energy activity such as snowshoeing can utilize up to 12,000 calories per day! Failure to keep up with caloric needs could result in the body being unable to produce necessary body heat.

Dehydration is a significant factor in hypothermia. Failure to replace fluids lost through normal means such as sweating and urine production can lead to a dehydrated state. This dehydration can lead to constriction of blood vessels in the skin making it more susceptible to localized freezing or frostbite. Additionally, it can result in an impairment of the body's ability to create heat during exercise. It is recommended that while participating in mild activities in the cold, water intake should be about two liters a day. If participating in high exertion activities, water intake should be increased to four to five liters per day. Watch the color of the urine if it becomes dark yellow or orange, this could indicate inadequate hydration.

Participants should be aware of the signs of hypothermia and watch each other for some of the early indications a problem might be brewing. Mild hypothermia signs and symptoms may be subtle and slow to occur and a lot of times the victim is not even aware they are getting into trouble. Things to look for include shivering, inability to carry out fine motor tasks such as tying knots or holding a pencil. There could be slight mental changes, poor decision making, and even a lack of coordination. A useful mnemonic for remembering the signs of mild hyperthermia is: Fumbles, Stumbles, Tumbles, Mumbles and Grumbles. Now is the time to take action! Shelter the person to preserve body heat, add active heat to their clothing or sleeping system (warm packs, hot water bottles). Be careful not to put hot items in direct contact with the skin. Feed the shivers. Provide calories to keep the shivering going, this is the body's attempt at creating heat. Warmed sweet liquids would be appropriate in this situation.

Moderate to severe hypothermia occurs as the body temperature continues to drop, usually below 90°F. A hypothermic individual at this point may lose responsiveness and begin to have cardiac problems. It is important to handle these individuals as carefully as possible, shaking and jarring of the victim can lead to cardiac arrest. Individuals in moderate to severe hypothermia should be evacuated to a hospital as quickly and smoothly as possible. Building a stretcher system which allows for insulation as well as a vapor and wind barrier is critical, be sure to add active heat to the system attempting to heat the chest and abdomen only. Do not attempt to rewarm arms and legs as this can lead to a further drop in core temperature as well as release of lactic acid into central circulation causing more complications including cardiac arrest. Do not attempt to give anything orally to a person who is unresponsive.

Leaders and youth participating in outdoor winter events should familiarize themselves with the Winter Activities section of the Guide to Safe Scouting

(<http://www.scouting.org/scoutsource/HealthandSafety/GSS/gss12.aspx>). Remember helmets are recommended for sliding and sledding activities and are required for downhill skiing and snowboarding. Some youth may feel they look a little "dorky" on the sledding hill, but a helmet can help to save them from lifelong suffering from a traumatic brain injury. The BSA recommends that when scouts are participating in outdoor winter activities that two adults (one over 21) be in attendance supervising. Be sure to obtain current Annual Health History Forms for all participants. Leaders should review the forms to assure they are aware of any potential medical conditions or restrictions a participant may have.

Winter provide a great opportunity to practice many scouting skills during the outings. Basic knowledge of the dangers of the cold environment and some of the inherent risks in the activities of winter outings can help to avert injury and illness amongst participants. Remember that appropriate outfitting and supervision of all participants will help to assure that everyone has a safe and enjoyable outing.