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## Winter Hiking Safety Tips.

Hiking and camping in winter can be some of the most rewarding activities in a well-rounded outdoor program. Winter can be a dangerous time to hike or camp in the backcountry, but with planning and proper preparation, a winter hike can be a safe and enjoyable experience. Keep the following in mind when planning an outing:

- Never hike alone in winter and remember the buddy system. The potential consequences are simply too high. Plan your hike thoroughly and leave a trip itinerary with an adult who knows who to call if you are late in returning.
- Daylight hours are short in the winter and the sun goes down quickly. Begin your trip early in the day and be prepared with a headlamp and extra batteries. If you are camping stop early to get camp set up before the sunset.
- Be prepared to keep warm with nothing more than the equipment you can carry. Dress in layers and be sure that have at least the 10 Outdoor Essentials in your pack with appropriate extra clothes and high calorie/energy food.
- Eat and drink frequently. Dehydration hastens the onset of hypothermia. Do not underestimate the amount of food that you'll need. Snowshoeing, for example, burns about 600 calories an hour and winter backpacking requires 4,000-5,000 calories a day.
- Deep snow may obscure trail blazing or trail markers. Topographical maps, a

compass, and knowledge of how to use them is essential. If you are not an experienced winter hiker, make your



initial trips day hikes in areas that you are familiar with.

- Stay alert for the signs of hypothermia, frostbite or trench foot. Know the signs and symptoms and how to treat them before you set out. Take a Wilderness First Aid class to prepare yourself better.
- In deep snow use skis or snowshoes. Post-holing is tiring and makes the trail unpleasant and dangerous for the next hiker.

Excellent information on Winter Hiking and Camping issues can be found at the web page of Princeton University's Outdoor Action Program

<http://www.princeton.edu/~oa/winter/wintcamp.shtml>

## Hypothermia: Recognize It – Prevent It.

Hypothermia is one of the most common and dangerous problems encountered in cold weather activities. Unrecognized and untreated it can be fatal. Proper treatment of hypothermia is beyond the scope of this article, but plenty of BSA literature is

available on the subject. Here we want to give you basic information that will help you understand and recognize the onset of hypothermia, and guidelines for preventing it in the first place.

The human thermoregulatory system typically balances heat gain and heat loss to keep the body core temperature around 99.6 degrees Fahrenheit (98.6 degrees oral temperature). Bodily functions operate efficiently within a narrow range around this “normal” temperature. Hypothermia is a lowering of the body’s core temperature to a point where normal brain and/or muscle function is impaired. This condition may be mild, moderate, or life-threateningly severe.

**SIGNS AND STAGES OF HYPOTHERMIA:**

- Mild hypothermia manifests itself in a patient through shivers, inability to perform complex tasks (fumbles), confusion, apathy, sluggish thinking (grumbles), slurred speech (mumbles), and altered gait (stumbles)—sometimes referred to as “the umbles.”
- Moderate hypothermia manifests itself in a patient through worsening of the umbles and uncontrollable, violent shivering.
- In a patient with severe hypothermia, shivering stops. The patient may experience increasing muscle rigidity, stupor progressing to coma, decreasing

pulse, and respirations to the point where they are undetectable (but still present!).

Patients with Mild or Moderate hypothermia, if treated properly in the field, do not necessarily require evacuation. Severely hypothermic patients require both immediate, specialized first-aid and quick but gentle evacuation which is best done by trained medical professionals if possible.

**GUIDELINES FOR PREVENTION OF HYPOTHERMIA:**

It is far easier to maintain core temperature than to regain core temperature, so:

1. Wear clothing that retains body heat even when wet. Do not wear cotton clothing if the temperature could drop below 77 degrees Fahrenheit.
2. Stay dry by wearing layers of clothing, taking off layers before sweating starts, and adding them back before chilling occurs.
3. Stay well hydrated.
4. Eat regularly, especially carbohydrates.
5. Maintain a pace that prevents overexertion. Rest often.
6. In a group, watch each other for signs of hypothermia. Treat early, and if one person is treated, treat everyone.

*Understand Wind Chill – Assess Risk of Frostbite.*

The Wind Chill index is the temperature your body feels when the air temperature is combined with the wind speed. It is based on the rate of heat loss from exposed skin caused by the effects of wind and cold. As the speed of the wind increases, it can carry heat away from your body much more quickly, causing skin temperature to

drop. When there are high winds, serious weather-related health problems are more likely, even when temperatures are only cool.

The Wind Chill Chart below shows the difference between actual air temperature and perceived temperature, and amount of time until frostbite occurs.

Wind Speed (mph)	.Wind Chill Factor								
	Actual Air Temperature °F								
	40°	30°	20°	10°	0°	-10°	-20°	-30°	-40°
10	34	21	9	-4	-16	-28	-41	-53	-66
20	30	17	4	-9	-22	-35	-48	-61	-74
30	28	15	1	-12	-26	-39	-53	-67	-80
40	27	13	-1	-15	-29	-43	-57	-71	-84
50	26	12	-3	-17	-31	-45	-60	-74	-88
60	25	10	-4	-19	-33	-48	-62	-76	-91

**Frostbite times:**

**30 minutes 10 minutes 5 minutes**

Source: <http://emergency.cdc.gov/disasters/winter/duringstorm/outdoorsafety.asp>

## *What's In Your Unit's First Aid Kit?*

Have you looked in your Pack's, Troop's or Crew's unit first aid kit lately? As likely as not you may find such things as lots of opened Band-Aid wrappers but no Band-Aids, antiseptic ointment well past its expiration date, latex gloves that are tacky, brittle or have holes (or no gloves at all), "sterile" gauze packages that are open and no longer sterile, or no rescue breathing barrier to name just a few common problems. While the BSA doesn't have an officially mandated list of what should be in a every unit's medical kit there are several guidelines and concepts that should be observed when determining what needs to be in your kit.

- The contents of unit first aid kits shouldn't be static. You should have materials in you kit appropriate to deal with the kinds of injuries that might occur in the activity you have planned. The kit also needs to be stocked sufficiently for the duration of and number of people involved in the activity. What constitutes a properly stocked unit medical kit for a 1-day pack fishing derby, a week at summer camp, weekend winter camping, or a 12-day trek in Philmont is different in each case.
- There are lots of resources available that talk about stocking group or unit first aid kits. Aside from info in the Boy Scout Handbook, Field Guide, Guide to Safe Scouting and other BSA literature, see the Philmont Guidebook to Adventure, and look on line for American Red Cross recommendations and at the contents of different group first aid kits sold by companies such as Adventure Medical, Wilderness Medical Systems, Campmor or REI. Many outdoor related websites offer useful information as well.

- Because of allergy issues latex gloves aren't always the best choice. Nitrile or vinyl gloves are recommended substitutes or supplements, but be sure the glove is intended for medical use – food prep gloves will not provide adequate protection from blood borne pathogens.
- Be aware of special medical conditions or concerns of participants in your activities, and be sure your first aid kit includes equipment that might be needed in these special cases. Remember that adults as well as scouts frequently participate in challenging outdoor activities.
- The knowledge on how to use what's in your medical kit is as important as its contents. Encourage all leaders to be trained in First Aid or, better yet, Wilderness First Aid.

For the BSA's latest advice on First Aid for Wounds and CPR see

<http://www.scouting.org/scoutsource/HealthandSafety/Resources/latestfirstaid.aspx>.

For more information on Wilderness First Aid training and requirements see

[http://www.scouting.org/scoutsource/healthandsafety/training/wilderness\\_fa.aspx](http://www.scouting.org/scoutsource/healthandsafety/training/wilderness_fa.aspx).

The Guide to Safe Scouting is available at

<http://www.scouting.org/scoutsource/HealthandSafety/GSS.aspx>.

Philmont's Guidebook to Adventure is at

<http://www.philmontscout ranch.org/filestore/philmont/pdf/GuidebookToAdventure.pdf>

## *Speaking of Wilderness First Aid...*

### *Think You Don't Need the Training? Think Again.*

Wilderness First Aid (WFA) training isn't just for extended back country treks like Philmont. WFA training is recommended (required in some cases) when access to EMS services is more than 1 hour away. You don't have to be too far in on any trail in the many State parks throughout our Council to meet this criterion. Consider this scenario: You've been hiking for an hour on a trail in Harriman State Park or the Catskills when a scout slips on an icy trail, slides down a short slope and fractures a femur. Even with training it will take a good twenty minutes to assess the injury and provide emergency treatment, another hour for someone to hike back out with a message for help, say another fifteen minutes to find a phone to contact and communicate with an emergency medical service, another half-hour for appropriate first responders to get to the trailhead, and then another hour to hike in to the accident site. That's over three hours from the time of the injury until professional medical assistance arrives, three hours during which time a scout's life could depend on the quality of the care you are prepared to give him.

HVC's next Wilderness First Aid training is scheduled for 3/2-3/2013 at Camp Nooteeming see

<http://www.hudsonvalleyscouting.org/leadership-development/2012-13-upcoming-training-courses/49681>

For other approved training courses see

[http://www.scouting.org/scoutsource/HealthandSafety/Training/wilderness\\_fa.aspx](http://www.scouting.org/scoutsource/HealthandSafety/Training/wilderness_fa.aspx).