



Hiking Merit Badge

Troop 344 and 9344
Pemberville, OH

Hiking Merit Badge Requirements



1. Do the following:
 - a. Explain to your counselor the most likely hazards you may encounter while hiking, and what you should do to anticipate, help prevent, mitigate, and respond to these hazards.
 - b. Show that you know first aid for injuries or illnesses that could occur while hiking, including hypothermia, frostbite, dehydration, heat exhaustion, heatstroke, sunburn, hyperventilation, altitude sickness, sprained ankle, blisters, insect stings, tick bites, and snakebite.
2. Explain and, where possible, show the points of good hiking practices including proper outdoor ethics, hiking safety in the daytime and at night, courtesy to others, choice of footwear, and proper care of feet and footwear.
3. Explain how hiking is an aerobic activity. Develop a plan for conditioning yourself for 10-mile hikes, and describe how you will increase your fitness for longer hikes.

Hiking Merit Badge Requirements



4. Take the five following hikes, each on a different day, and each of continuous miles. These hikes **MUST** be taken in the following order
 - a. One 5-mile hike
 - b. Three 10-mile hikes
 - c. One 15-mile hike

You may stop for as many short rest periods as needed, as well as one meal, during each hike, but not for an extended period (example: overnight). Prepare a written hike plan before each hike and share it with your Scoutmaster or a designee. Include map routes, a clothing and equipment list, and a list of items for a trail lunch. *

5. Take a hike of 20 continuous miles in one day following a hike plan you have prepared. You may stop for as many short rest periods as needed, as well as one meal, but not for an extended period (example: overnight). *
6. After each of the hikes (or during each hike if on one continuous "trek") in requirements 4 and 5, write a short reflection of your experience. Give dates and descriptions of routes covered, the weather, and any interesting things you saw. It may include something you learned about yourself, about the outdoors, or about others you were hiking with. Share this with your merit badge counselor.

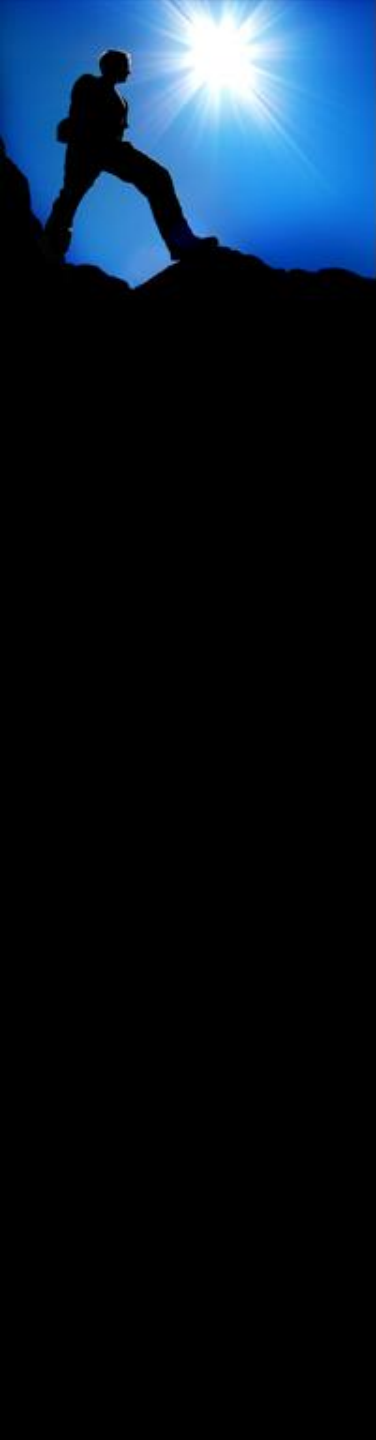
* The required hikes for this badge may be used in fulfilling hiking requirements for rank advancement. However, these hikes cannot be used to fulfill requirements of other merit badges.

Requirement 1



Do the following:

- a. Explain to your counselor the most likely hazards you may encounter while hiking, and what you should do to anticipate, help prevent, mitigate, and respond to these hazards.



Hazards of Hiking

- A truly effective approach to reducing risk comes from the willingness of every group member to take an active role in maximizing personal safety and the safety of others.
- The more responsibility each person takes for his or her own health and safety, the more everyone can contribute to a successful trek.
- To help minimize risk:
 - Stay in good shape so you are ready for the physical demands of a trek.
 - Know where you are going and what to expect.
 - Adjust clothing layers to match changing weather conditions.
 - Drink plenty of water.
 - Take care of gear.
- A critical aspect of managing risk is letting others know when you are having difficulties or are aware of a concern that might affect you or the group.
 - Even if you feel hesitant to speak up, voicing concern about questionable route decisions or a developing hot spot, for example, can bring important matters to the group's attention.

Requirement 1



Do the following:

- b. Show that you know first aid for injuries or illnesses that could occur while hiking, including hypothermia, frostbite, dehydration, heat exhaustion, heatstroke, sunburn, hyperventilation, altitude sickness, sprained ankle, blisters, insect stings, tick bites, and snakebite.

Hypothermia



- Occurs when body cannot make heat as fast as it loses it.
- Internal body temperature drops below 95°F.
- Can occur whenever and wherever a person feels cold, including indoors in poorly heated areas.

Hypothermia

- Move victim to shelter.
- Remove wet clothing and wrap victim in warm covers.
- Apply direct body heat.
- Re-warm neck, chest, abdomen, and groin first.
- Give warm, sweet drinks if conscious.
- Monitor breathing, administer CPR.
- Get medical help.

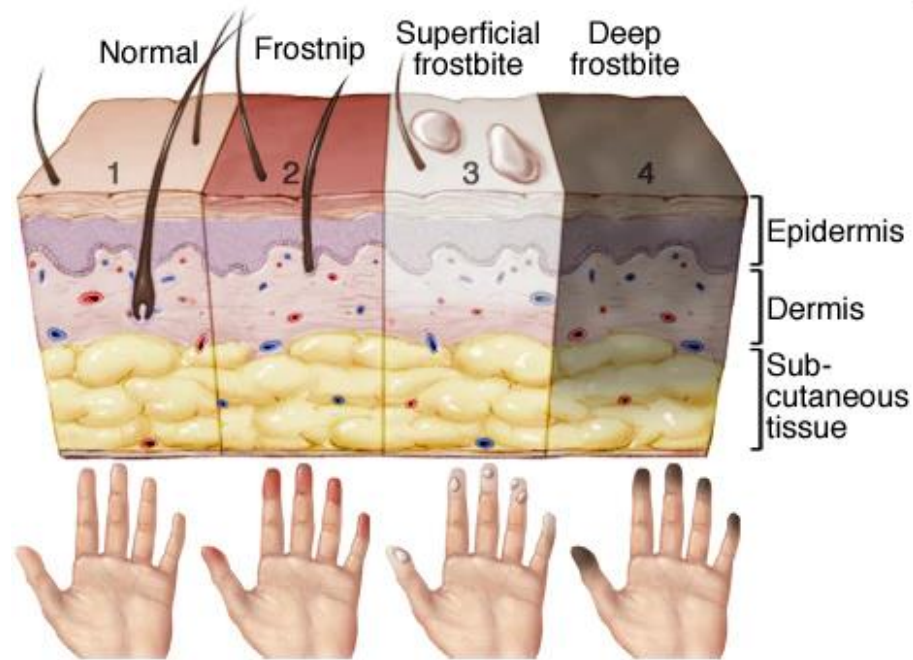


Frost Nip



- **Frost nip** is an earlier and milder case of frostbite. Usually the ears, cheeks, nose, fingers and toes are affected.
- Skin white or numb.
- Don't rub – hold against a warm body part.
- Change clothing and/or environment.
- Frost nip is a warning that you are not keeping warm enough!

Frostbite



- Mild Frostbite:
 - Skin looks waxy and white, gray, yellow, or bluish.
 - Area is numb or feels tingly or aching
- Severe Frostbite:
 - Area feels hard.
 - May become painless
 - After warming, area becomes swollen and may blister.

First Aid for Frostbite



- Move victim to warm environment.
- Hold frostbitten area in hands to warm – do not rub.
- Remove any tight clothing or jewelry around area.
- Put dry gauze or fluffy cloth between frostbitten fingers or toes.
- Do not use heat lamp, campfire, or heating pad to rewarm.
- Seek medical attention immediately.

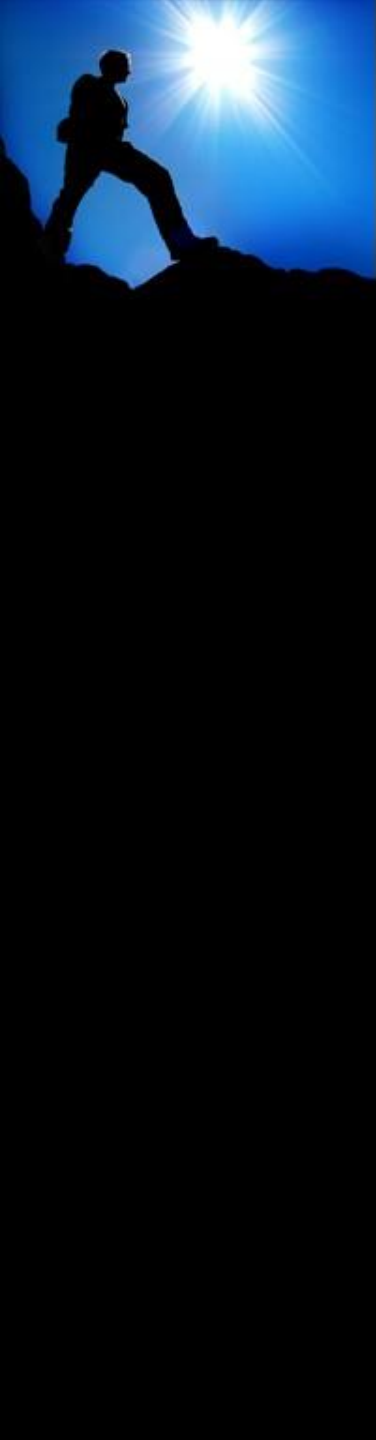
Prevention of Frostbite



- Be sure you dress in layers for cold weather. The first layer should be thermal underwear, and the outer layer needs to be waterproof. The layers should be loose, not tight. Mittens are warmer than gloves.
- You should wear a hat. Over 50% of a your body heat is lost from the head.
- Set limits on the time spent outdoors when the wind-chill temperature falls below 0°F (-18°C).
- Recognize the earliest warnings of frostbite. Tingling and numbness are reminders that your are not dressed warmly enough for the weather and needs to go indoors.

Dehydration

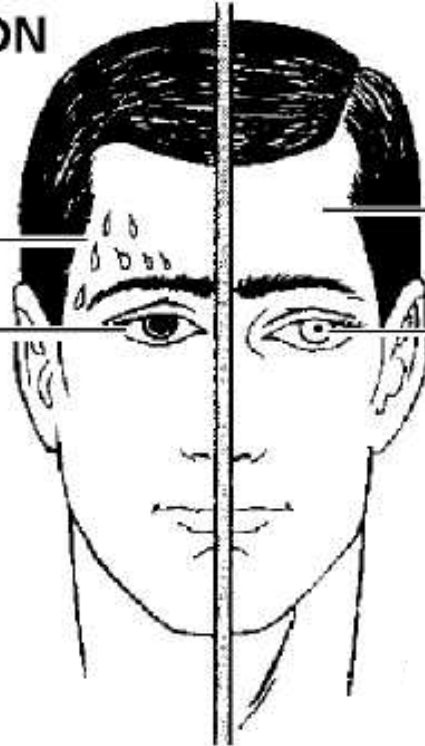
- When the body puts out more liquid than it is taking in.
- Ways we lose fluids:
 - Sweating.
 - Urination.
 - Vomiting.
- Signs of dehydration:
 - Thirst.
 - Yellow or dark urine.
 - Dry mouth.
 - Lightheadedness.
 - Nausea and vomiting.
 - Dry skin.
 - Cease sweating.
- Treatment:
 - Drink fluids (water, Gatorade).
 - Avoid physical activity.
 - Get inside air conditioned or cool area.



Heat Reactions

HEAT EXHAUSTION

1. MOIST & CLAMMY SKIN
2. PUPILS DILATED
3. NORMAL OR SUBNORMAL TEMPERATURE

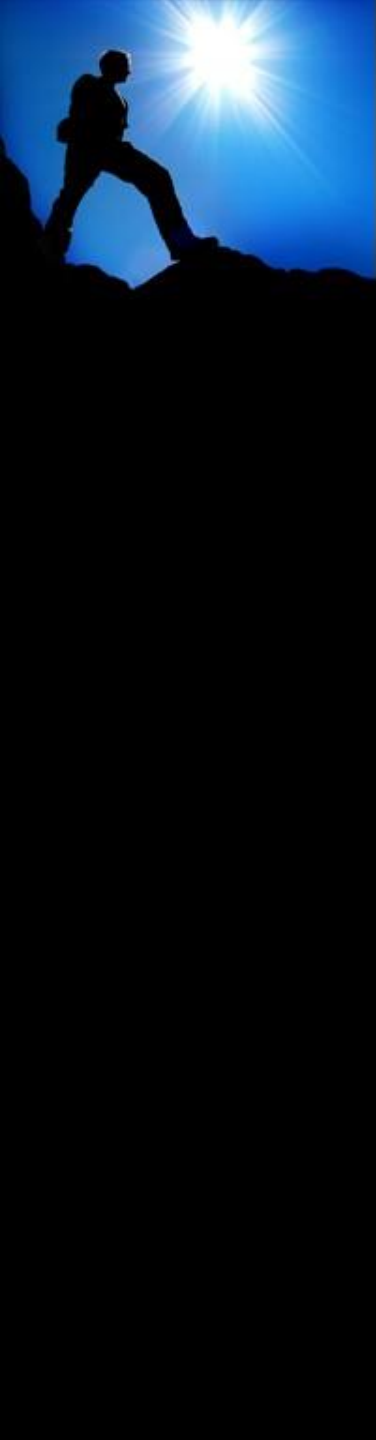


HEAT STROKE

1. DRY HOT SKIN
2. PUPILS CONSTRICTED
3. VERY HIGH BODY TEMPERATURE

Heat Exhaustion Symptoms

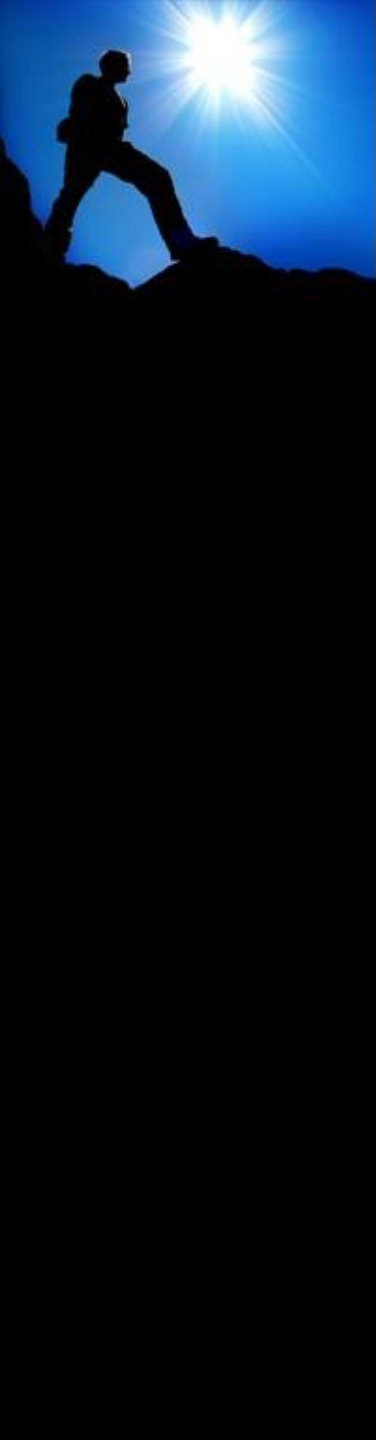
- Heavy sweating
- Thirst
- Fatigue
- Heat cramps
- Headache
- Dizziness
- Nausea
- Vomiting



First Aid for Heat Exhaustion



- Move victim from heat to rest in a cool place.
- Loosen or remove unnecessary clothing.
- Give water or a sports drink.
- Raise feet 8-12 inches.
- Put cool, wet cloths on forehead and body – spray skin with water.
- Seek medical care if victim's condition worsens or does not improve within 30 minutes.



HEAT EXHAUSTION

OR

HEAT STROKE

Faint or dizzy



Throbbing headache

Excessive sweating



No sweating



Cool, pale, clammy skin

Body temperature above 103°
Red, hot, dry skin



Nausea or vomiting



Nausea or vomiting

Rapid, weak pulse



Rapid, strong pulse



Muscle cramps



May lose consciousness



- Get to a cooler, air conditioned place
- Drink water if fully conscious
- Take a cool shower or use cold compresses

CALL 9-1-1

- Take immediate action to cool the person until help arrives

First Aid for Heat Stroke

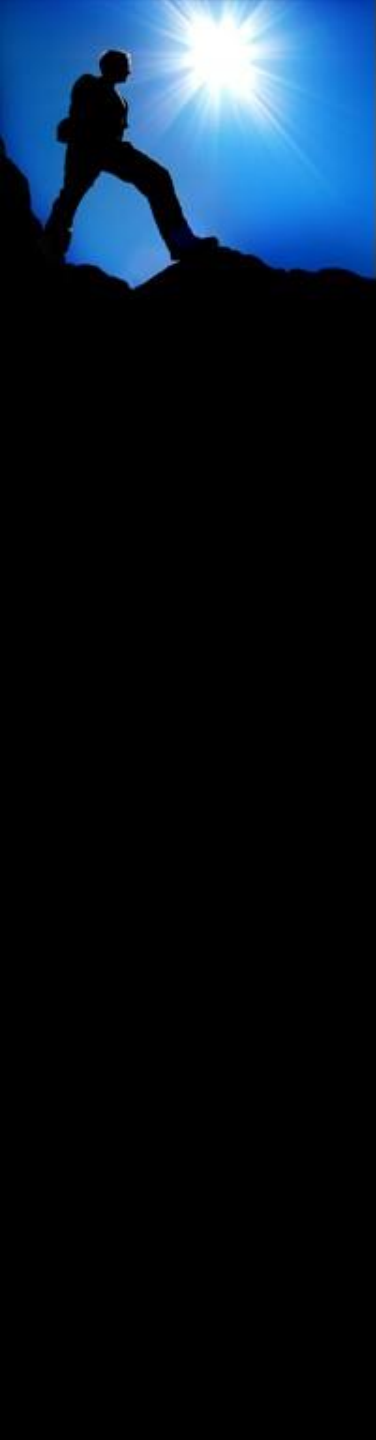


- Call 911.
- Move victim to cool place.
- Remove outer clothing.
- Cool victim quickly.
- Apply cold compresses or spray skin with water.
- Put ice bags or cold packs beside neck, armpits, and groin.

Sunburn



- Severe sunburn can be a significant first aid situation.
- Sunburn is preventable with protective ointments, clothing, or staying out of the sun.
- Long term effects of sunburn has been linked to skin cancers.



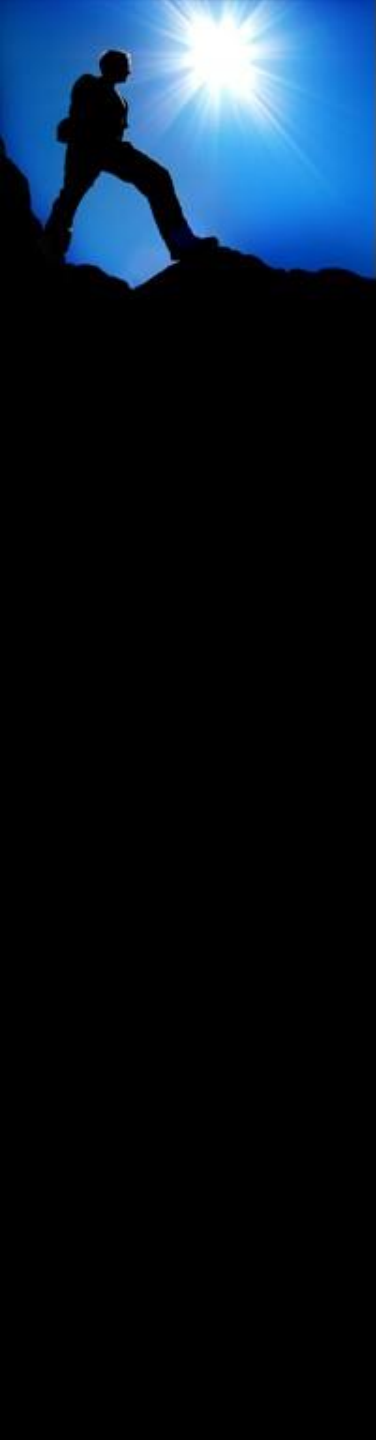
First Aid for Sunburn

- Symptoms:
 - Redness.
 - Minor inflammation, or swelling.
 - Pain.
 - Dry, peeling skin occurs as the burn heals.
- Treatment:
 - Soak the sunburn in cool water for five minutes or longer or take a cool shower.
 - Take acetaminophen or ibuprofen for pain relief.
 - Apply lidocaine (an anesthetic) with Aloe Vera to soothe the skin.

Hyperventilation



- Abnormal increase in volume of air breathed in and out of the lungs..
- Occurs during stressful situations such as infection, bleeding, or heart attack.



Hyperventilation Symptoms

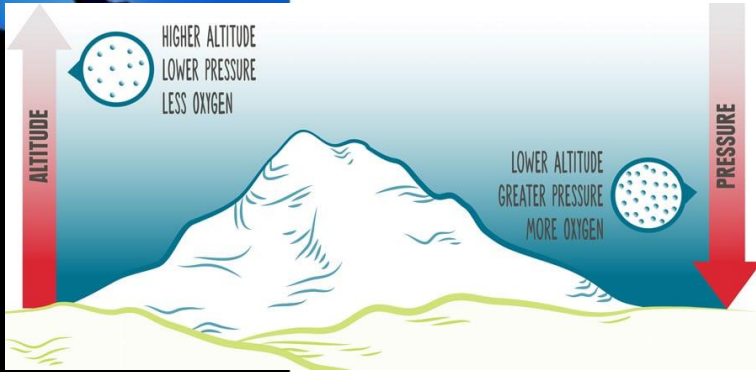
- Hyperventilation causes the carbon dioxide level in the blood to decrease.
- This reduces blood flow to the brain, which may result in the following symptoms:
 - Weakness.
 - Tingling in fingers/toes.
 - Dizziness/lightheadedness.
 - Confusion.
 - Agitation.
 - Chest pain or fast and pounding heartbeat.
 - Dry mouth.
 - Nausea.
 - Feeling as if you can't catch your breath.
- Reaction to the symptoms causes even greater hyperventilation.

First Aid for Hyperventilation

- Calm the person down by identifying the source of anxiety and addressing it.
 - Hyperventilation is often triggered in wilderness settings by a fear of heights, equipment failures, or by a minor injury that causes anxiety.
- Have the person breath into a stuff sack or other bag, covering both the nose and mouth with the bag. This will increase the amount of carbon dioxide in the blood.
- If the person does not respond to treatment within 20 minutes, the ailment may be something other than hyperventilation. Other possibilities are asthma, heat exhaustion, and heat stroke.



Altitude Sickness



- Hiking may take you to high places where *altitude sickness* (also known as *AMS*, or *Acute Mountain Sickness*) can be a concern.
- Altitude sickness is seldom a problem for people at elevations of less than 8,000 feet above sea level.
- High altitudes may leave you short of breath due to less oxygen.
- Your body will *acclimate* to higher altitudes within a few days by producing extra red blood cells to carry more oxygen.
- To help prevent altitude sickness:
 - Drink plenty of fluids.
 - Ascend gradually and permit your body to acclimate as you go higher (increase your altitude by no more than 1,000 feet/day).

First Aid for Sprains

- Immobilize area in position found.
- Put ice or cold pack on area.
- Wrap joint with compression bandage.
- Use soft splint to immobilize and support joint.
- Seek medical attention if appropriate.



Blisters



- A blister is skin injury that is usually filled with water.
- Blisters commonly occur on the feet or hands.
- They are most often caused by the hands or feet rubbing against something (such as wearing new shoes).



5 BLISTER STAGES

You are here



NO BLISTER



HOT-SPOT



ROOF INTACT



ROOF TORN



DEROOFED



Prevention



Treatment



The aim is to start & finish blister-free

This comes from the work you've done in the weeks and months leading up to your event.

STOP! This is your tiny window of opportunity

Empty your shoe, apply tape to your hot-spot, readjust your sock, firm up your laces. Do something to stop this hot-spot from becoming a blister!

Protect the roof

As long as the blister roof is intact, your blister can't get infected. Protect it!

Warning!

Infection is now possible. Apply antiseptic, a non-adherent dressing and monitor regularly for signs of infection.

Keep it moist

Dry skin and scabs are brittle and fragile. A moist wound environment allows strong skin to form. Hydrocolloid dressings can help.

Treatment for Blisters



- Do not open the blisters, since this increases the possibility of infection.
- Clean the skin around it.
- Take the pressure off the area by placing a Band-Aid over the blister or Moleskin with a hole cut in the center.
- If the blister accidentally breaks open, trim off the loose skin.
- Keep the surface clean by washing it twice a day with an antibacterial soap (such as Dial or Safeguard).
- Apply an antibiotic ointment and a Band-Aid to help with healing.

Popping a Blister



- If a blister is in a frequently used area that has a high risk of rupturing, it may be best to pop it to make sure it's properly protected against infection.
- Wash your hands and the blister thoroughly.
- Disinfect a needle with alcohol.
- Carefully puncture the blister.
 - Poke three or four shallow holes around the edge of the blister.
 - You want to keep as much of the skin intact as possible.
 - Allow the fluid to drain out.
- Cover the blister with a first aid ointment such as Neosporin.
- Apply a dressing.
 - Cover the blister tightly with a bandage or gauze.
- Repeat if necessary.
 - You may need to perform these steps every six to eight hours for the first 24 hours.
 - After that, change the dressing and apply ointment daily.

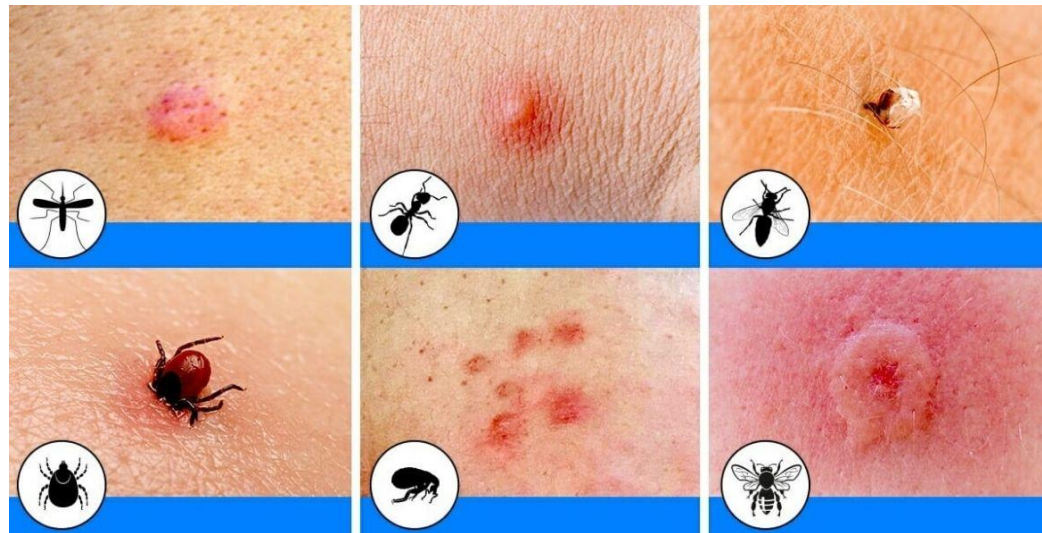
Preventing Blisters



- Friction can also be reduced by wearing two pairs of socks.
- Place Moleskin on sensitive areas where the friction may occur.

Insect Bites

- Bites of mosquitoes and chiggers (harvest mites usually cause itchy, red bumps. The size of the swelling can vary from a dot to a half inch.
- Signs that a bite is from a mosquito are: itchiness, a central raised dot in the swelling, a bite on skin not covered by clothing, and summertime,
- Bites from horseflies, deerflies, gnats, fire ants, harvester ants, blister beetles, and centipedes usually cause a painful, red bump.
- Fire ant bites change to blisters or pimples within a few hours.



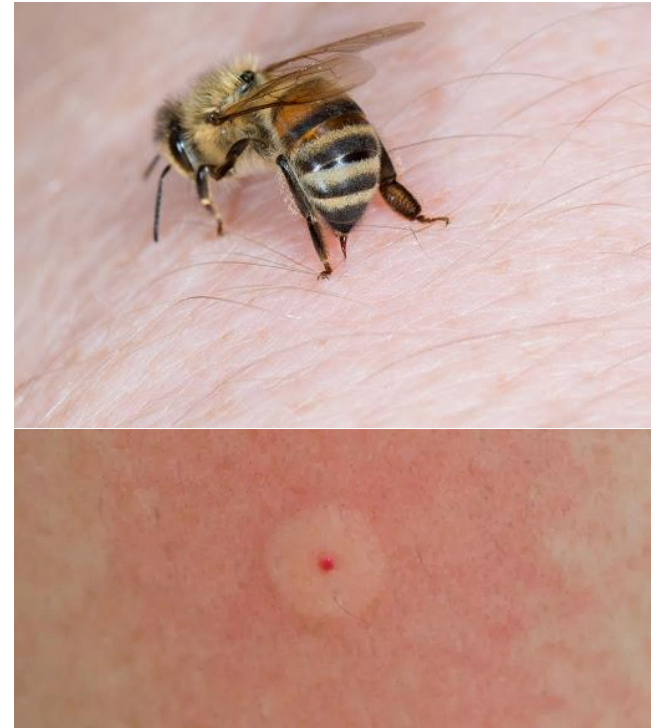
Treatment of Insect Bites



- Apply calamine lotion or a baking soda paste to the area of the bite.
- If the itch is severe (as with chiggers), apply nonprescription 1% hydrocortisone cream four times a day.
- Do not to pick at the bites or they can become infected or leave scars.
- Cold, moist compresses or ice on the area can help.

Bee Stings

- Honey bees, bumble bees, hornets, wasps, and yellow jackets can all sting.
- These stings cause immediate painful red bumps.
- While the pain is usually better in 2 hours, the swelling may increase for up to 24 hours.



Treatment of Bee Stings



- If you see a little black dot in the bite, the stinger is still present (this only occurs with honey bee stings).
- Remove it by scraping it off with a credit card or something similar.
- For persistent pain, massage with an ice cube for 10 minutes.
- Give acetaminophen immediately for relief of pain and burning.
- For itching, apply hydrocortisone cream.

Tick Bites

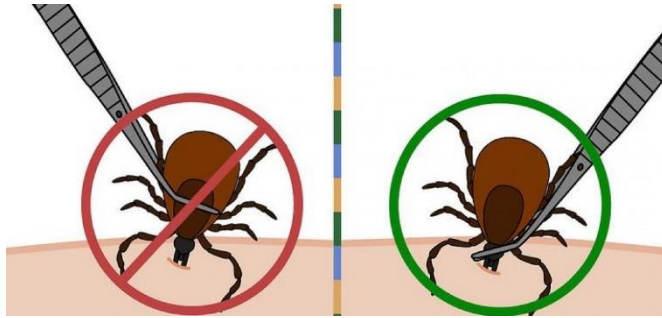
- Can transmit Rocky Mountain spotted fever or Lyme disease.
- Tick embeds its mouth parts in skin and may remain for days sucking blood.



Engorged Tick



Tick Removal



- Grasp the tick's mouthparts against the skin, using pointed tweezers.
- Pull steadily without twisting until you can ease the tick head straight out of the skin.
- DO NOT squeeze or crush the body of the tick.
- DO NOT apply substances such as petroleum jelly, nail polish, or a lighted match to the tick while it is attached.

Tick Removal (cont.)

- Once you have removed the tick, wash the wound site and your hands with soap and water, and apply rubbing alcohol or antiseptic to the site.
- Observe the bite over the next two weeks for any signs of an expanding red rash or flu-like symptoms (Lyme Disease).



Lyme Disease Rash

Poisonous Snakebite

- In the U.S. the poisonous snakes are rattlesnakes, copperheads, cottonmouths, and coral snakes.
- Currently about 8,000 people per year in the U.S. are bitten by a poisonous snake, of which about 6 will die.



First Aid for Poisonous Snake Bites

- Have victim lie down and stay calm.
- Keep bitten area immobile and below level of heart.
- Call 911.
- Wash bite wound with soap and water.
- Remove jewelry or tight clothing before swelling.
- Do not try to catch snake but note appearance.
- If possible, wrap entire extremity with elastic (compression) bandage to slow spread of venom.
- Do not use a tourniquet.
- Do not cut wound open to try to drain or suck venom out.



Requirement 2



Explain and, where possible, show the points of good hiking practices including proper outdoor ethics, hiking safety in the daytime and at night, courtesy to others, choice of footwear, and proper care of feet and footwear.

Outdoor Ethics

- While hiking, it is important to remember that you're sharing the space with other people and you should be aware of proper hiking etiquette in order to trek safely and respectfully.
- Proper outdoor ethics go hand-in-hand with following the Outdoor Code and Leave No Trace principles.
- The Outdoor Code simply states:
 - As an American, I will do my best to—
 - Be clean in my outdoor manners.
 - Be careful with fire.
 - Be considerate in the outdoors.
 - Be conservation-minded.



Leave No Trace Principles

- **Plan Ahead and Prepare.** When planning your hike, contact the land managers of the area you intend to visit or the Leave No Trace Center for Outdoor Ethics.
- Explain your desired route and ask how you can best implement Leave No Trace.
- Here are some additional guidelines to remember.
 - Know the regulations and special concerns for the area you will visit.
 - Prepare for extreme weather, hazards, and emergencies.
 - Schedule your trip to avoid times of high use.
 - Visit the backcountry in small groups no larger than parties of four to six hikers.



When signed, this single-visit permit authorizes.

		CAMP SITE		DAY OR TENT			
		1	2	3	4	5	
NAME	Bill Aubin						
ADDRESS	4555 Spirit Ln Rd						
CITY	NY IRON MN 56768						
To visit	SNP						
Give best estimate of start and finish dates	FROM MO/DAY 6 June 10 12 2013						
	THROUGH MO/DAY 14 15 16 17						
Location of entry	to Fish Gap	18	19	20			
Location of exit	Port Hope	21	22	23			
Primary method of travel	foot			24	25		
Number of people in group	1			26	27		
Number of pack or saddle stock	0			28	29		
Number of watercraft or other craft	0			30	31		
REMARKS		J. M. South				77	78
DATE		June 10 2013				(VISITOR'S SIGNATURE)	
DATE		June 10 2013				(ISSUING OFFICER'S SIGNATURE)	
		M. South				79	80

U.S. DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
BACKCOUNTRY USE PERMIT
The visitor must have this permit during the visit.

NO OPEN FIRES PERMITTED

APPALACHIAN TRAIL
MAINE TO GEORGIA

FASTEN THIS TAG TO YOUR PACK, SADDLE, BED OR TENT

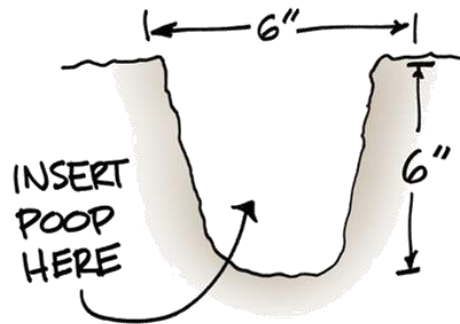
Leave No Trace Principles

- **Travel on Durable Surfaces.** Stay on existing pathways to help protect the surrounding landscape from being trampled, eroded, and compacted.
 - In popular areas, hike on durable surfaces such as established trails, rock, gravel, dry grasses, and snow. Taking shortcuts will damage the grooming of the trail and cause erosion.
 - Protect shoreline vegetation.
 - Walk single file in the middle of the trail, even if it is wet or muddy.
 - Conduct activities in areas where vegetation is absent.



Leave No Trace Principles

- **Dispose of Waste Properly.** Pack it in, pack it out. Make it easier on yourself by limiting the amount of potential trash you take.
- Especially important is the disposal of human waste. Use toilet facilities whenever possible. If toilet facilities are not available:
 - Urinate away from trails, camps, and other gathering places. Choose rocks or bare ground; animals may strip vegetation in order to consume the salts left by concentrations of urine.
 - Pack out solid waste, or use a cathole. Check with the land agency for the area you will visit to find out the preferred method.
 - To dig a cathole, choose a remote spot at least 200 feet from camps, trails, water, and dry gullies. With a trowel, dig a hole 6 to 8 inches deep in the topsoil. Take care of business, re-cover the hole, and disguise the site with leaves or other ground cover. Organic material in the topsoil will slowly break down the waste, making it harmless.



Leave No Trace Principles

- **Leave What You Find.** Every hike will bring with it a new discovery to see and enjoy.
- Here are some reasons why you should leave what you find.
 - Future hikers will have the excitement of discovering for themselves what you have found.
 - Plant and wildlife environments will not be harmed. Leave rocks and other natural objects as you find them. Avoid introducing or transporting nonnative species.
 - Archaeological, cultural, and historic structures and artifacts preserve a record of America's past; some are sacred to American Indians and other Native Americans. Observe, but do not touch or take.



Leave No Trace Principles

- **Minimize Campfire Impacts.** Most hikers are prepared to spend a day outdoors without needing a campfire.
- If you do expect to cook or get warm, plan ahead with options that do not depend on kindling a blaze.
- In any case, it is wise to know when a campfire can be lit and when a fire could scar the land.
- In many areas, fires are discouraged, prohibited, or allowed by permit only.
- If you must make a campfire:
 - Use established fire rings, fire pans, or mound fires.
 - Keep fires small. Use only sticks from the ground that can be broken by hand.
 - Burn all wood and coals to ash, make sure the ashes are cold out, then scatter the cool ashes.



Leave No Trace Principles

- **Respect Wildlife.** Sharing the outdoors with wildlife is one of the great pleasures of hiking.
- Respect wildlife by always traveling quietly and observing animals from afar.
- You are too close if your actions cause an animal to change its activities.
- Always avoid wildlife when they are mating, nesting, raising young, and during other sensitive times.
- Never feed wild animals.
- Doing so damages their health, alters natural behaviors, and exposes them to predators and other dangers.
- Store all your food and trash securely.



Leave No Trace Principles

- **Be Considerate of Other Visitors.** Extending courtesy to other outdoor visitors is a natural habit of hikers. Speak softly and respect their desire for quiet and solitude. Leave radios and electronic devices at home. If you carry a mobile telephone for emergency communication, turn it off and stow it in your pack until you need it. Appreciate the company of those you meet on the trail and at campsites near yours.
- Observe proper trail etiquette. If you encounter horseback riders or pack animals, stop and ask the lead rider what you should do. The lead rider will probably ask you to step a few paces downhill from the trail and stand quietly while the animals pass.
- If you encounter other hikers or backpackers going uphill when you are going downhill, give them the right-of-way. Step aside on a rock or a log to minimize your impact, and watch your footing when you step below the trail.



TRAIL COURTESY



Hiking Safety

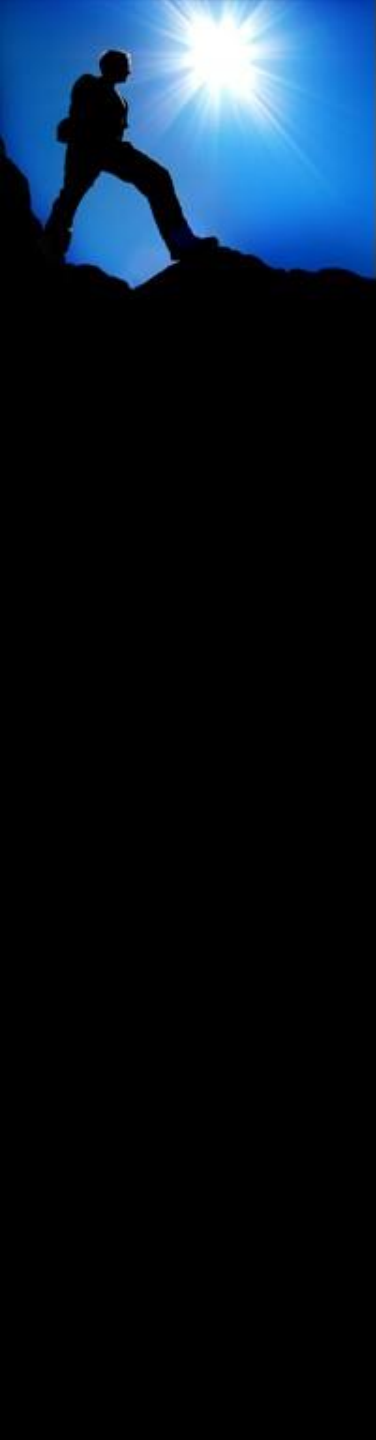
- To ensure a safe hike, always keep the following points in mind:
 - When hiking, always let someone know of your plans.
 - Prepare thoroughly, obtain trail maps, and know your route beforehand.
 - Never hike alone and always keep a pace that's comfortable for the slowest member.
 - Make sure to stay hydrated and bring more than enough water and equipment.
 - Stay on the trail.
 - Pack as lightly as possible.
 - Always check the weather forecast before leaving.
 - You should always bring a cell phone in case of emergencies.



Hiking Safety

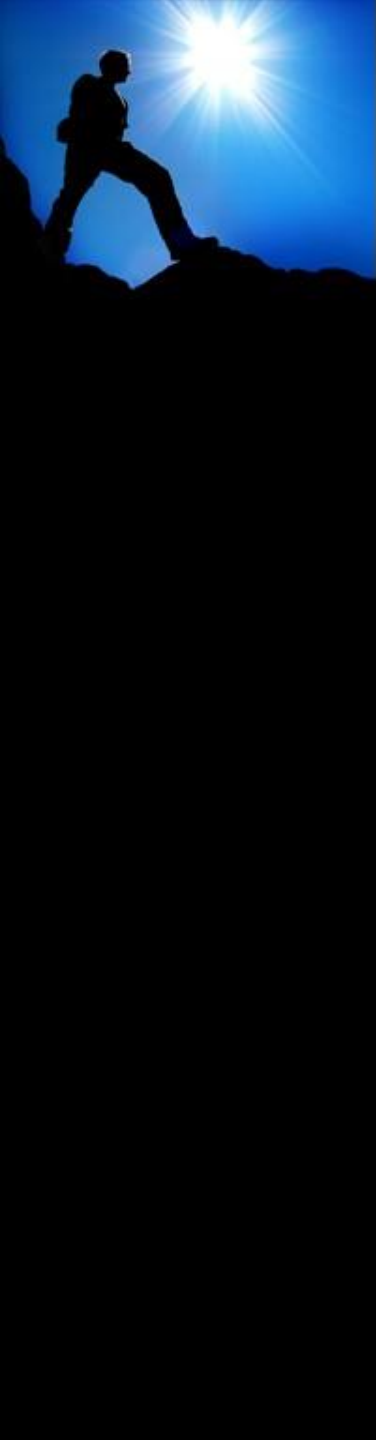
- Whenever you hike on a road, a few simple precautions will help keep you safe.
 - Walk single file on the left shoulder so that you can see oncoming traffic.
 - Wear light-colored and reflective clothing to help drivers notice you. Even better are bright orange vests such as those worn by highway workers and hunters.
 - Be ready, if necessary, to step onto the shoulder of the road to give vehicles plenty of room.
 - When you want to cross a road, line up alongside one another and have everyone cross at the same time.





Hiking Safety

- Hiking during daylight hours is usually the best way to go.
- You can see where you are headed, and others, especially motorists, can easily see you.
- If you are caught out after dark and cannot safely continue—perhaps the trail is difficult to follow, or group members have become tired, hungry, and chilled—it may be best to stop for the night.
- Use your Outdoor Essentials, good sense, and any other resources to keep your group safe and comfortable until you can move on in the morning light.
- When hiking at night, there are other key safety points that you should keep in mind:
 - Bring a headlamp as well as other backup lights.
 - Pack warmer clothing than you normally would.
 - Hike a trail that you're familiar with so that you don't get lost.
 - Try to plan your hike around a full moon, the time of month when the natural light is brightest.
 - Know your gear, as well as its location in your backpack.
 - Night hiking helps you avoid the heat and allows you to see you some beautiful constellations that you'd otherwise miss when hiking during the day.



Proper Footwear for Hiking

- When hiking, your footwear is the only thing that separates your feet from miles and miles of solid ground
- It is essential to take the time to choose the best shoes for your hiking activities.
- When choosing the right footwear for a long outdoor trek, you should consider the following points:
 - Support: Having proper support means choosing a shoe that provides cushion, shock absorption, and ankle protection. Having good support is critical, as it will prevent you from getting ankle and leg injuries during long and challenging hikes.
 - Sole: Your shoe's sole will impact the durability, breathability, and stiffness of your footwear. Be sure to choose a boot whose soles have solid traction, as hiking trails can often be slippery.
 - Fit: Having the right size of shoes will prevent rubbing and make for a much more comfortable hike. The right fitting hiking footwear will be snug but not too tight, as your feet will expand during the trek.

Hiking Boots: Ensuring the Proper Fit



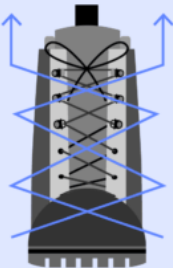
1. Try boots on at the end of the day



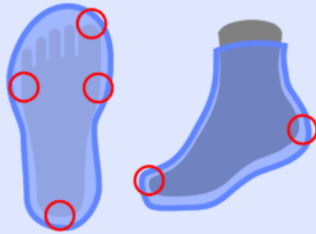
2. Wear the socks you plan to hike in



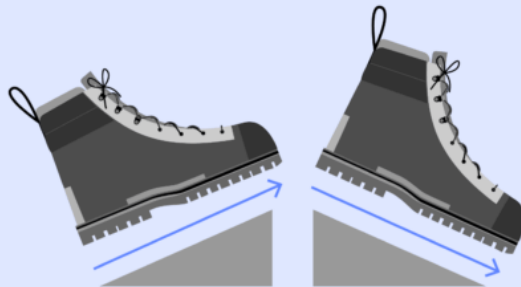
3. Measure your feet



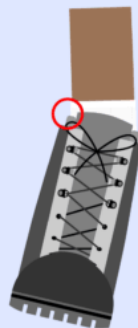
4. Lace it up snug



5. Check pressure points and tap your toe



6. Walk up and down a ramp



7. Test stability

- Before your trip, make sure to break your boots in!
 - Wear your boots inside the house. Wear the socks and insoles you'll be wearing on the trail and tie your boots snugly, but not too tight. Make sure your tongues and gussets are straight. Your new boots will be a little stiff at first, which is fine.
 - Walk around the block and around town. Make sure your boots feel good at each stage before upping the distance.
 - Put on a daypack and hit the trail. Off pavement is where serious breaking in happens. Be sure you gradually increase both weight and mileage throughout this phase.

Proper Care of Footwear

- If you buy the right shoes, they should be able to last for years if properly cared for.
- By taking a few minutes after every hike to clean and dry your shoes, they'll be as good as new the next time you're ready to use them!
- Watch this video on how to correctly care for your hiking shoes by clicking on the image.



Proper Care of Feet

- Taking care of your feet during a hike is just as important as maintaining your boots.
- Always keep your feet dry and protected to avoid any sort of skin irritations or infections.
- Nothing makes a hike more miserable than having issues with your feet.
- Watch a this video for a brief overview of how you can easily take care of your feet while on a hike by clicking on the image.



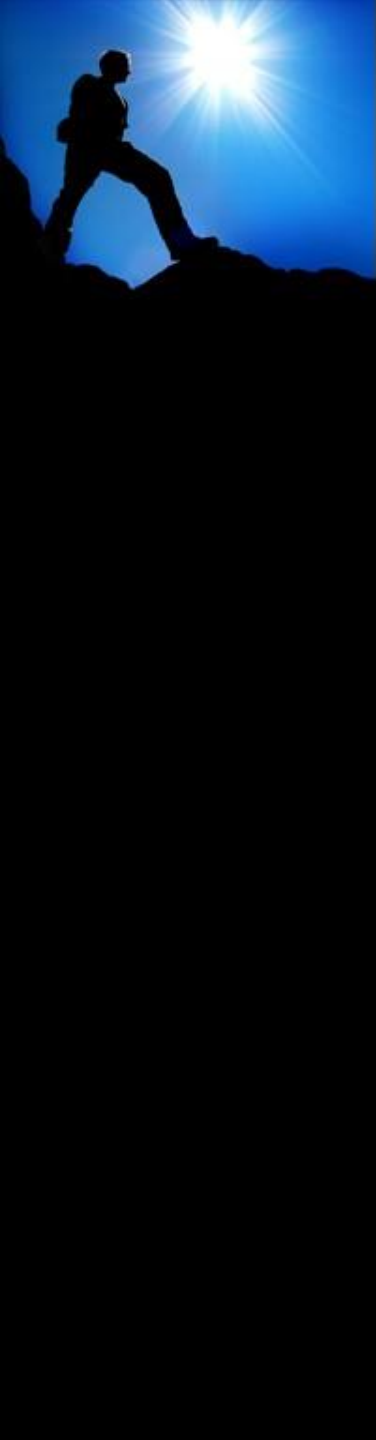
HIKING

Taking Care of Your Feet During a Hike

Requirement 3



Explain how hiking is an aerobic activity. Develop a plan for conditioning yourself for 10-mile hikes, and describe how you will increase your fitness for longer hikes.



Hiking as an Aerobic Activity

- The word *aerobic* means “with oxygen.”
- Aerobic activities increase the rate of your breathing and your heartbeat, and push your body to use oxygen more efficiently.
- Aerobic training can strengthen your circulatory and respiratory systems, add mass to muscles and bones, burn excess fat, and lead to improvements in overall fitness.
- For aerobic activities to be effective, you must take part in them for half an hour or more at least three times a week, maintaining enough intensity to break a light sweat.
- To enjoy hiking to the fullest, you will want to be in good shape.
- Develop a plan for conditioning yourself by beginning with short trips, increasing the length of your journeys as you become more fit.



Conditioning Plan

- Watch this video for more information on how you can build endurance and improve your conditioning for upcoming hikes by clicking on the image.



**HOW TO
TRAIN
FOR
HIKING**

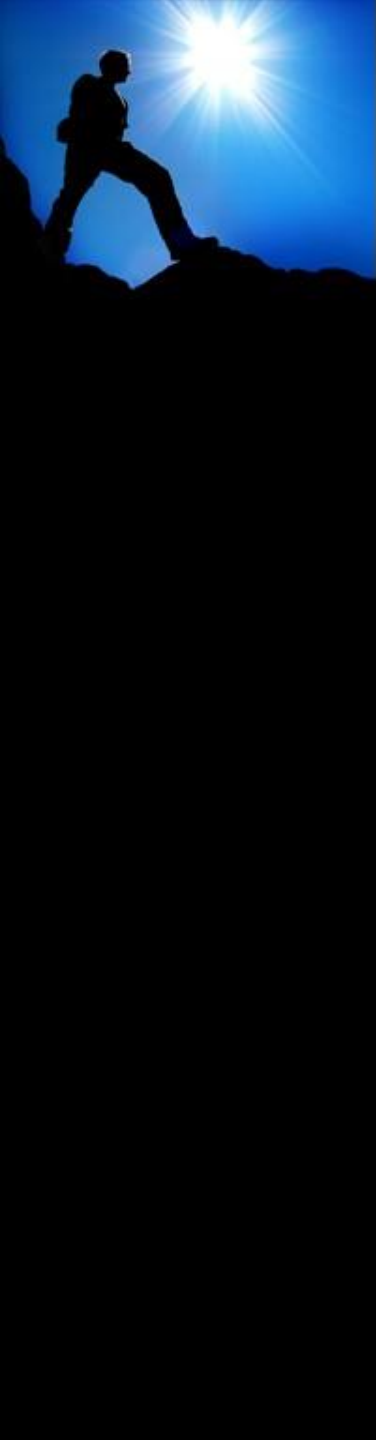
Requirement 4



Take the five following hikes, each on a different day, and each of continuous miles. These hikes **MUST** be taken in the following order

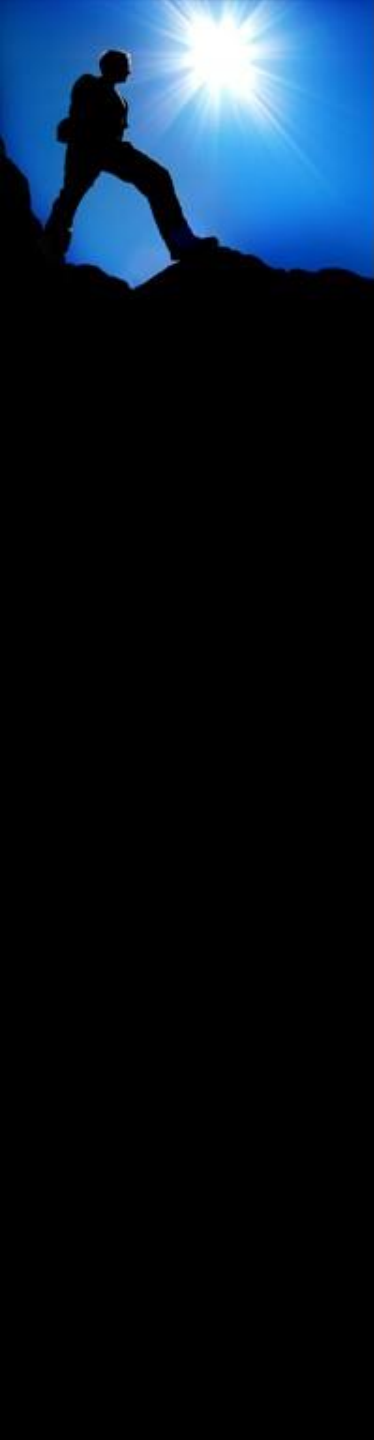
- a. One 5-mile hike
- b. Three 10-mile hikes
- c. One 15-mile hike

You may stop for as many short rest periods as needed, as well as one meal, during each hike, but not for an extended period (example: overnight). Prepare a written hike plan before each hike and share it with your Scoutmaster or a designee. Include map routes, a clothing and equipment list, and a list of items for a trail lunch. *



Hiking Plans

- **Trip Plans**
- A trip plan prepares you for the challenges of a hike, a campout, or any other outdoor activity. Write down the five W's of a trip plan:
 - **Where are you going?** Decide on a route to your destination and back. For backcountry trips, include a copy of a map with your route marked in pencil.
 - **When will you return?** If you are not back reasonably close to the time on your trip plan, Scout leaders and family members can take steps to locate you and, if necessary, provide assistance.
 - **Who is hiking with you?** List the names of your partners. If you need a ride to or from a trail, write down who will do the driving.
 - **Why are you going?** To fish in a lake? Climb a peak? Explore a new area? Write a sentence or two about the purpose of your journey.
 - **What are you taking?** Always carry the Outdoor Essentials. If you are camping out, you may need additional food, gear, and shelter.
- Download a copy of **“Hiking Trip Plan”** to fill out for your hikes.



Hiking Trip Plan

A trip plan prepares you for the challenges of a hike. Take a copy of your trip plan with you and leave one with your parents or other responsible adult. The parts of a trip plan are:

WHERE are you going? Decide on your destination and the route you will travel to reach it and return. For backcountry trips, include a copy of the map with your route marked in pencil.

WHEN will you return? If you are not back reasonably close to the time on your trip plan, someone can take steps to locate you and provide assistance if needed.

WHO is going on the hike? List the names of your hiking partners. Write down who will transport you to the trailhead, if required.

WHY are you going? Going fishing, climbing a mountain, exploring a new area are all good reasons for a hike. Write a couple of sentences about the purpose of your trip.

WHAT are you taking? Carry the Scout outdoor essentials and list other equipment and clothing you will need.

HOW will you respect the land by using Leave No Trace hiking skills?

Scout Name: _____

Departure Date and Time: _____

Estimated Return Date and Time: _____

Destination: _____

Route Going: _____

Route Returning: _____

Distance Going: _____

Distance Returning: _____

Others on Hike: _____

Purpose of Hike: _____

Special Permissions or Permits Needed: _____

Sources of Drinking Water: _____

Equipment Needed:

Clothing Needed:

Food for a Trail Lunch: _____

Clothing and Equipment Lists

- Clothing for Warm-Weather Hiking

- Wicking shirt
- T-shirt
- Hiking shorts
- Long pants
- Sweater or warm jacket
- Sturdy shoes or hiking boots
- Socks
- Hat with a brim for shade
- Bandanna
- Rain gear (poncho or parka, pants)



Clothing and Equipment Lists

- Clothing for Cold-Weather Hiking (Dress in Layers)
 - Long-sleeved shirt
 - Long pants (fleece or wool)
 - Sweater (fleece or wool)
 - Long underwear (polypropylene)
 - Sturdy shoes or hiking boots
 - Socks (wool or synthetic blend)
 - Warm hooded parka or jacket
 - Stocking hat (fleece or wool)
 - Mittens or gloves (fleece or wool) with water-resistant shells
 - Bandannas



Wool Cap



Base Layer Top



Base Layer Bottom



Insulating Layer



Rain/Wind Pants



Rain/Wind Jacket



Smartwool Socks



Bandana



Clothing and Equipment Lists

- The Outdoor Essentials

- Pocketknife
- First-aid kit
- Extra clothing
- Rain gear
- Water bottle
- Flashlight
- Trail food
- Matches and fire starters
- Sun protection
- Map and compass



Clothing and Equipment Lists

- **Pack** – A fanny pack or day pack will hold everything you need during a hike. If you use a small pack to carry your books to school, it will probably be fine to use for hiking, too.
- **Sticks and Trekking Poles** – A hiking stick can add rhythm and balance to your stride. Use it to measure the depth of a stream and to help maintain better balance. A pair of trekking poles has the effect of putting a hiking stick in each of your hands. They are a great aid to balance, especially over rough ground, on snow, or when you are tired.



Food

- Hiking burns energy.
- Keep your body well-fueled by having a nutritious breakfast before a hike, and then carrying food that will provide the calories you need throughout the day.
- You may want to take a bag of trail mix to nibble on while you walk.
 - Granola is the choice of many hikers.
 - So is GORP—good old raisins and peanuts.
 - Apples, oranges, carrots, and bananas are fine snacks, too.
- A solid lunch will see you through the middle of the day.
- Sandwiches, fruit, carrots, nuts, and raisins are all tasty.
- Instead of sandwiches, you might try crackers with cheese or peanut butter.



Water

- Water is even more important to a hiker than food.
- Fill at least one water bottle before you start out, and sip from it often.
- In hot weather, you may need to carry several water containers.
- Treat any water taken from streams, lakes, or springs before you drink it.



Requirement 5



Take a hike of 20 continuous miles in one day following a hike plan you have prepared. You may stop for as many short rest periods as needed, as well as one meal, but not for an extended period (example: overnight). *

20 Mile Hike Plan

- Download a copy of “**Hiking Trip Plan**” to fill out for your 20 Mile Hike.



Requirement 6



After each of the hikes (or during each hike if on one continuous "trek") in requirements 4 and 5, write a short reflection of your experience. Give dates and descriptions of routes covered, the weather, and any interesting things you saw. It may include something you learned about yourself, about the outdoors, or about others you were hiking with. Share this with your merit badge counselor.

Hiking Reflections

- Your reflections can be short passages (200-250 words). Make sure you give dates and descriptions of routes covered, the weather, and any interesting things you saw. It may include something you learned about yourself, about the outdoors, or about others you were hiking with. Include pictures from the hike, as well as some of the other highlights from the trail.

