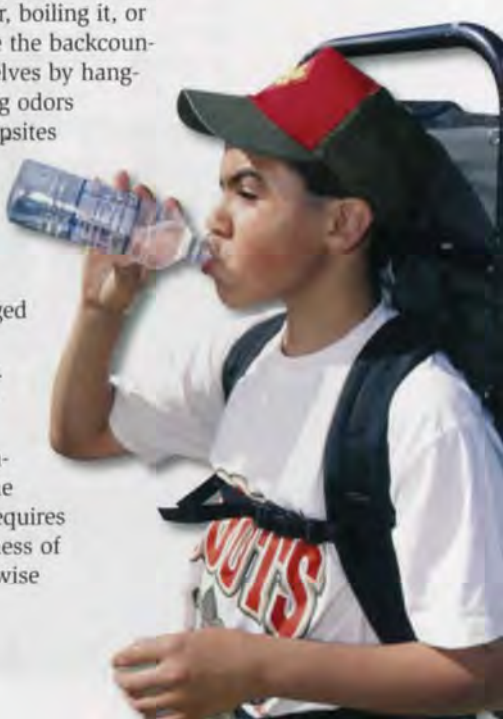
Preparation

Of all that you can take with you on a camping trip, the most important thing is knowledge. Plan ahead and you can be fairly sure that you will have everything you need—both in your pack and in your head—to make a camping trip a success. Start by thinking about how you will manage risk.

Risk Management

Risk management is so much a part of camping that we often don't notice we are doing it. When we fill bottles with water from streams and lakes, we deal with the potential risk of parasites by treating the water with a filter, boiling it, or using chemical treatment. When we share the backcountry with bears, we protect them and ourselves by hanging our food out of their reach, eliminating odors from our sleeping areas, and keeping campsites spotless. When foul weather blows in, routes become uncomfortably exposed, streams swell, or snow loads make avalanches a possibility, we make decisions that keep risks at acceptable levels.

Perhaps the greatest risk to be managed in the backcountry is also one of its real attractions—the simple matter of distance. The farther you travel from clinics, physicians, and rescue squads, the more you must rely upon yourself and your companions to maintain your safety. Of course, the best response to risk is to avoid it. That requires good planning, leadership, and an awareness of your surroundings so that you can make wise decisions every step of the way.



The more responsibility every Scout takes for personal health and safety, the more each of you can contribute to a successful camping trip. You also will be in a stronger position to provide assistance if an emergency does arise. Here are some ways you can increase your role in risk management:

- Stay in good physical shape so you are ready for the demands of camping.
- Know where you are going and what to expect.
- Adjust clothing layers to match changing conditions.
- Drink plenty of water.
- Protect yourself from exposure to the sun, to biting insects, and to poisonous plants.
- Take care of your gear.

Lastly, let others know when you are having difficulties or are aware of a concern that might affect you or the group. Stopping for a few moments to deal with a hot spot on a heel can help avoid bringing the group to a long halt later in the day when blisters break out. Speaking up about changes you notice in the weather or asking questions you have about whether a campsite is appropriate can help everyone make the best decisions.

First-Aid Preparedness

Managing risk includes being prepared to handle emergencies that might occur. Camping can take you far from urban areas where emergency medical care is close by. In the field, your group might need to care for an injured or ill person for a few hours or even a day or more until help arrives. That requires thinking about first aid in different ways than you would when you are in a city.

Completing the first-aid requirements for the Tenderfoot, Second Class, and First Class Scout ranks can help you prepare to deal with illnesses and injuries that could arise while you are camping. So can earning the First Aid merit badge. The current editions of the *Boy Scout Handbook* and *Fieldbook* include descriptions of the symptoms and treatment of hypothermia, heatstroke, heat exhaustion, frostbite, dehydration, sunburn, insect stings, tick bites, snakebite, and blisters. In addition, familiarize yourself with the symptoms, prevention, and treatment of altitude sickness, hyperventilation, asthma, and food allergies.

Altitude Sickness

Camping may take you to high places where altitude sickness (also known as AMS, or acute mountain sickness) can be a concern. Fortunately, altitude sickness is seldom a problem for people at elevations of less than 8,000 feet above sea level.

Going to a place that is higher than you are accustomed may leave you short of breath because the atmosphere around you becomes thinner and contains less oxygen. Within a few days your body will acclimate to higher altitudes by producing extra red blood cells to carry more oxygen to your tissues and organs, and you should feel fine.

Taking steps to help prevent altitude sickness is far better than suffering from it during a camping trip. The following suggestions can make your alpine adventures more comfortable and more fun, too.

- Drink plenty of fluids. As a rule, take in enough water so that your urine remains clear rather than dark yellow.
- Give your body time to acclimate gradually as you go higher. Spend a few days at 5,000 to 7,000 feet and then a few more at 8,000 to 10,000 feet.
- "Climb high, sleep low." Use this mountaineer's trick for acclimating by hiking upward during the day and then descending to a lower camp for a good night's rest.

Altitude Sickness Symptoms and Treatment

Watch for any or all of these symptoms of altitude sickness: headache, nausea, unusual tiredness, loss of motivation. Going down a few thousand feet in elevation will almost always relieve these symptoms. Rest, fluids, and food may also help. If symptoms persist or worsen, seek medical assistance.

Hypothermia

The symptoms of altitude sickness also can be warning signs of hypothermia. Begin treatment for hypothermia by making sure that the person is warm, is wearing dry clothing, is sheltered from the wind and chilly or wet weather, and has had enough to eat and drink. If the person does not rapidly improve and the elevation is above 8,000 feet, treat for altitude sickness as well.

Hyperventilation

Stress and anxiety about outdoor adventures can sometimes cause a person to suffer from hyperventilation—quick, shallow breathing that can upset the balance of oxygen and carbon dioxide in the body. Someone experiencing hyperventilation can become light-headed, faint, and sometimes feel tingling or numbness in the fingers and toes.

Treating Hyperventilation. The symptoms of hyperventilation usually will go away if the person relaxes and slows his breathing. Removing the causes of his anxiety is important, too, either by moving to a different location or by talking through the situation. Extensive or repeated episodes of hyperventilation might be signs of other medical concerns and should be checked out by a physician.

Managing Asthma and Allergic Reactions

Asthma and allergies are seldom barriers for Scouts to participate fully in troop campouts. For example, if a Scout is severely allergic to peanuts, his troop can operate as a peanut-free zone during meetings and camping trips. That will create a safe environment for everyone and will show the values of Scouting in action by making opportunities for adventures available to everyone.

Scouts who have asthma or allergies to certain foods, bee stings, or other agents must let group leaders know ahead of time the exact nature of their situation and how they should be treated for an asthma attack or an allergic reaction. They also should consult with their physicians to prepare themselves for outdoor activities with strategies and treatment kits, and should share that information with their group leaders.

Dehydration

Water is essential for nearly every bodily function, including brain activity and temperature control. We lose moisture through breathing, sweating, digestion, and urination. A person who gives off more water than he or she takes in risks becoming *dehydrated.* The first sign of dehydration usually is dark urine. Other signs can include weariness, headache and body aches, and confusion.

Dehydration can play a significant role in a number of maladies including heat exhaustion, heatstroke, hypothermia, and frostbite.

Help keep your body in balance by eating enough throughout the day. The importance of drinking plenty of fluids cannot be overemphasized. Don't wait until you feel thirsty—that's an indication that you are already becoming a bit dehydrated. Replenish your water supplies at every opportunity and drink often in warm weather and cold alike.

Incident Response for Dehydration

A person showing any indications of dehydration should rest in the shade and sip water until the symptoms subside.

Heat Exhaustion

Heat exhaustion can be brought on by a combination of dehydration and a warm environment. The condition is not uncommon during sports activities and trek adventures conducted in hot weather, especially if participants are not fully acclimated to the conditions. Symptoms can include the following:

- Skin that is pale and clammy from heavy sweating
- Nausea and tiredness
- Dizziness and fainting
- Headache, muscle cramps, and weakness

Incident Response for Heat Exhaustion

To treat heat exhaustion, have the victim lie in a cool, shady place with the feet raised. Remove excess clothing. Cool the victim by applying cool, wet

cloths to his or her body and by fanning. If the victim is fully alert, let him or her sip from a glass of water and take bites of salted food, such as nuts. Recovery should be rapid. If symptoms persist, call for medical help.

Heatstroke

Heatstroke occurs when a person's core temperature rises to a life-threatening level (above 105 degrees). Causal factors include dehydration and over-exertion in hot environments. Symptoms can include hot, red skin that can be either dry or sweaty; confusion; and a rapid pulse.

Incident Response for Heatstroke

A heatstroke victim must be cooled immediately. He or she is in danger of dying. To quickly lower the body temperature and begin restoring hydration, move the victim to a cool, shady spot and cool him or her any way you can. Keep the victim lying down and comfortable, with head and shoulders slightly raised. Remove outer clothing and sponge the victim with cold water. Cover the victim with wet towels, wet clothing, or whatever else is handy, and fan him or her. Place the victim in a stream, in a tub filled with cool (not ice-cold) water, or in front of an air conditioner running full blast in a house or car. Use combinations of all available treatments.

Get emergency medical help as soon as possible. The victim's temperature might go up again, or he or she might vomit or require rescue breathing.

For more on conducting trek adventures when temperatures are warm, see the chapter titled "Hot-Weather Travel and Camping."

Hypothermia

Hypothermia occurs when a person's body is losing more heat than it can generate. It is a danger for anyone who is not dressed warmly enough, though simple exposure to cold is seldom the only cause. Dehydration is a common factor. Wind, damp clothing, hunger, and exhaustion can further compound the danger. The temperature doesn't have to be below freezing, either—a lightly dressed hiker caught in a cool, windy rain shower can be at great risk. So is a swimmer too far out in chilly water or immersed too long.

A group that knows how to treat hypothermia should be well enough aware of the risk that its own members will seldom, if ever, need to be treated for it.

A person experiencing hypothermia might feel cold and numb; become tired, anxious, irritable, and increasingly clumsy; have slurred speech; shiver uncontrollably; make bad decisions; and lose consciousness.

Incident Response for Hypothermia

Treat a victim of hypothermia by preventing him or her from getting colder and, if necessary, by using any or all of the following methods to help the body warm again to its normal temperature.

1. If the person is fully conscious and can drink, offer plenty of warm liquids (cocoa, soup, fruit juices, water).
2. Move the person into the shelter of a building or a tent and get him or her into dry, warm clothes.
3. Zip the person into a dry sleeping bag. Cover the head with a warm hat or sleeping bag hood.
4. Provide water bottles filled with warm fluid to hold in the armpit and groin areas.
5. If hypothermia is advanced, help the person to breathe warm, moist air to aid in rewarming.
6. Monitor closely and be ready to administer other first aid.
7. Seek medical care.

While one person is being treated for hypothermia, the rest of a group also might be at risk. Protect yourself and others by taking shelter, putting on layers of dry, warm clothing, and having something to eat and drink. Look after one another.

Frostbite

Flesh exposed to low temperatures or cold wind can freeze. Far from the warmth of the body's core, toes and fingers are especially vulnerable, as are the nose, ears, and cheeks. A frostbite victim might complain that his or her ears, nose, fingers, or feet feel painful and then numb, but some victims won't notice anything. Grayish-white patches on the skin are signs of frostbite. Since dehydration increases the danger of frostbite, cold-weather travelers must be every bit as diligent about drinking fluids as they are when the temperature is high.

Incident Response for Frostbite

Only superficial frostbite—frostnip—can be treated in the field. If you suspect that frostbite is deep (extending below skin level), wrap the injured area in a dry blanket and get the victim under the care of a physician as soon as possible. Don't rub the injury.

To treat frostnip, move the victim into a tent or building, then warm the injured area and keep it warm. If an ear or cheek is frozen, remove a glove and warm the injury with the palm of your hand. Slip a frostnipped hand under your clothing and tuck it beneath an armpit. Treat frostnipped toes by putting the victim's bare feet against the warm skin of your belly.

For more on conducting trek adventures in chilly conditions, see the chapter titled "Cold-Weather Travel and Camping."

Sunburn

Although skin appears to recover from sunburn, damage to its cellular structure accumulates. That can lead to premature wrinkling and is a primary cause of skin cancer. Use sunscreen to protect exposed skin, giving special attention to your face, ears, nose, and neck. To be effective, sunscreen should have a sun protection factor (SPF) of at least 15. Apply it liberally before sunlight exposure, and reapply if you are sweating and after immersion in water. Hats with large brims, long-sleeved shirts, and long pants will provide further protection.

Sunlight reflected by water or snow can intensify the damaging effects of solar radiation. Zinc oxide offers total blockage of the sun's rays, and might be what you need for your face and ears during watercraft adventures and treks at high altitudes or on snow. Wear sunglasses to prevent eyestrain, and shield your lips against chapping and sun injury by applying a lip balm with an SPF of 15 or higher.

Incident Response for Sunburn

Prevent further injury by getting out of the sun, either by seeking shade or by putting on a hat and clothing that affords protection. Treat painful sunburn with damp cloths. Remedies containing aloe vera also might provide relief.

Bee and Wasp Stings

Scrape away a bee stinger with the edge of a knife blade, but don't squeeze the sac attached to the stinger—that might force more venom into the skin. An ice pack or cool compress might reduce pain and swelling. Watch for any indications of anaphylactic shock.

Tick Bites

Ticks are small bloodsucking arthropods that bury their heads in the flesh of their hosts. Protect yourself whenever you are in tick-infested woodlands and fields by wearing long pants and a long-sleeved shirt with snug cuffs and collar. Button your collar and tuck the cuffs of your pants into your boots or socks. Inspect yourself and other group members daily, especially the hairy parts of the body, and immediately remove any ticks you find.

If a tick has attached itself, grasp it with tweezers close to the skin and gently pull until it comes loose. Don't squeeze, twist, or jerk the tick, as that might leave its mouthparts in the skin. Wash the wound with soap and water, and apply antibiotic ointment. After dealing with a tick, thoroughly wash your hands. If a tick has been embedded more than a day or poses difficulties in removal, see a physician.

Lyme disease is an illness carried by some ticks. A red ringlike rash might appear around the bite. A victim might feel lethargic and have flulike symptoms, fever, a sore throat, and muscle aches. Anyone experiencing these symptoms in the days and weeks following a trek adventure, especially activities in areas where ticks are known to carry Lyme disease, should be checked by a physician.

Chigger Bites

Almost invisible, chiggers burrow into skin pores where they cause small welts and itching. Try not to scratch chigger bites. You might find some relief by covering chigger bites with hydrocortisone cream or by dabbing them with clear fingernail polish.

Spider Bites

The bite of a female black widow spider can cause redness and sharp pain at the wound site. The victim might suffer sweating, nausea and vomiting, stomach pain and cramps, severe muscle pain and spasms, and shock; breathing might become difficult.

The bite of a brown recluse spider might not hurt right away, but within two to eight hours there can be pain, redness, and swelling at the wound. An open sore is likely to develop. The victim might suffer fever, chills, nausea, vomiting, joint pain, and a faint rash.

Victims of spider bites should be seen by a physician as soon as possible.

Scorpion Stings

Scorpions might startle you if you find them underneath your tent or ground cloth, or shake them out of your boots first thing in the morning. They usually are more imposing than they are dangerous, and scorpions that can cause humans serious injury are uncommon. Ordinary scorpion stings usually are not as dangerous as bee stings; they can cause severe, sharp pain, swelling, and discoloration, but generally have no lasting ill effects. If you are stung, cool the wound area with cold water or ice and seek medical attention.

Snakebites

Snakes are found in many parts of the country, but bites from them are rare. Snakes try to avoid humans, usually striking only when cornered or surprised. Use a hiking stick to poke among stones and brush ahead of you when you walk through areas where snakes are common. Watch where you put your hands as you collect firewood or climb over rocks and logs. Snakebites seldom result in death.

The bite of a nonpoisonous snake causes only minor puncture wounds and requires only ordinary first aid for small wounds—scrubbing with soap and water, then treating with an antiseptic.

A poisonous snakebite might cause the victim to feel sharp, burning pain. The area around the bite might swell and become discolored. However, a poisonous snake does not inject venom every time it bites. Know which poisonous snakes are native to the area you plan to hike, and know how to identify them.

Snakes are not warm-blooded and so cannot carry rabies, though any bite that breaks the skin has the potential of causing infection.

Incident Response for Poisonous Snakebite

Get the victim under medical care as soon as possible so that physicians can neutralize the venom. A person who has been bitten by a poisonous snake might not be affected by the venom for an hour or more. Within that time, the closer to medical attention you can get the victim, the better off he or she will be. The victim might be able to walk; carrying him or her also might be an option. Before setting out, do the following:

1. Encourage a frightened victim to remain calm, and give reassurance that he or she is being cared for.

2. Remove rings and other jewelry that might cause problems if the area around a bite swells.

3. If available within three minutes of the bite, apply a Sawyer Extractor® directly over the fang marks and leave in place for no more than 10 minutes. Properly used, the extractor can remove up to 30 percent of the venom. *Do not* make any cuts on the bite—that's an old-fashioned remedy that can cause the victim much more harm than help.

4. Immobilize a bitten arm with a splint and a sling, keeping the wound lower than the level of the victim's heart.

5. *Do not* apply ice to a snakebite. Ice will not help the injury, but could cause damage to skin and tissue.

If the victim must wait for medical attention to arrive, add these treatment steps:

1. Have the victim lie down and remain still. Position the bitten part lower than the rest of the body. If you have not done so already, immobilize the bitten limb with a splint.

2. Put a broad constricting band (a bandanna or a strip of cloth at least 1 inch wide) around the bitten limb 2 to 4 inches above the bite (between the heart and the bite) to slow the spread of venom. This is not a tourniquet; it is intended to impede the lymphatic system but not the circulation of blood. The band should be snug, but loose enough to slip a finger under easily. Periodically check for a pulse on both sides of the band. You must not cut off blood circulation entirely. Do not use a constriction band around a finger, a toe, the head, or the trunk.

3. Treat for shock, but keep a bitten extremity lower than the heart.