



Backcountry Safety: Illnesses and Weather Hazards

Sequoia National Forest

The backcountry is beautiful place to visit, but also primitive and you will be on your own! We want you to enjoy your backcountry visit, and we want you to venture as safe as possible. These are some tips to remember. First and foremost, tell someone of your planned route and time of return before you travel into the backcountry!

What to Pack

Sudden shifts in weather are one of the backcountry's greatest dangers. We recommend that you bring at the least a warm fleece or wool pullover, a waterproof jacket, an emergency blanket, a hat, sunglasses, sunscreen, lip balm, insect repellent, first-aid kit, pocket knife, flashlight or headlamp, waterproof matches, map, compass, a mirror and whistle for signaling if you are lost, plenty of water, and extra food with you.

Hiking in Variable Terrain

Identify safe routes and local conditions. Test and use secure footing and never run down slopes. Step over logs, not on them. Know how to fall; protect your head and back and roll with the fall. Take extra precautions when encountering steep, loose, or wet trails.

Hypothermia

Caused by rapid loss of body heat, hypothermia is the most dangerous illness of backcountry travel. Hypothermia can occur even in the warm summer months. Symptoms of hypothermia include: apathy, confusion, drowsiness, loss of coordination, pale or cold skin, uncontrollable shivering, shock, slurred speech, and weakness. To prevent hypothermia, wear non-cotton clothing in layers including a waterproof outer layer to adjust to changing weather and temperatures. To treat hypothermia get the victim out of the wind and remove any wet clothing they may be wearing. Because skin-to-skin contact could quickly warm a body back to proper temperature, place the victim in a dry sleeping bag and then have one or two heat donors surround the victim. When fit for travel, carry or help the victim to walk out and get medical attention as soon as possible.



Hyperthermia

Caused by the body's inability to cool in high heat conditions. The body regulates the temperature by sweating and releasing excess heat, but sometimes this is not enough especially when ambient air temperature is high and humid. The best way to cool the body is to stay hydrated and drink plenty of water in high temperatures conditions. If this is not enough, take a break in a shaded area and remove some clothing to allow for more body cooling. There are three forms of heat-related illness that can lead to hyperthermia.

1. **Heat cramps** is the mildest sign of heat-illness where the muscles cramp and spasm due to loss of electrolytes or salts. It can also be a sign of heat exhaustion. **Heat rash** is a skin irritation caused by excessive sweating and is considered one of mildest form of heat-illness.
2. A progressive level of heat-illness is **heat exhaustion** where the body begins to show signs of heavy sweating, paleness, muscle cramps, tiredness, weakness, dizziness, headache, nausea or vomiting, and fainting. When these signs occur, immediately rest, drink plenty of fluids, cool the body with cool water, and provide cool air to circulate past the victim. Without immediate attention, the symptoms may progress to heat stroke.
3. **Heat stroke** is the most severe form of heat-related illness and is a serious medical condition that warrants immediate attention. Symptoms include: An extremely high body temperature (above 103°F), red, hot, and dry skin (no sweating); rapid, strong pulse; throbbing headache, dizziness, nausea, confusion, and unconsciousness. Immediate evacuation is highly recommended!



Altitude Sickness

Altitude sickness may occur if you overexert at high elevations (above 5,000 feet) where oxygen supply is reduced. Symptoms of high altitude sickness include nausea, dizziness, confusion, and fatigue. Before hiking at high altitudes it is best to acclimate yourself by sleeping at these elevations a night or two. If you or someone in your party experiences high altitude sickness symptoms on a hike, do not go any higher! Descend as quickly as possible and, if symptoms get worse, get medical attention.



Fatigue

Exhaustion occurs because the person may be pushing too hard and is embarrassed to ask the group to slow down. A good principle of backcountry travel is take it slow, rest often, and drink and eat snacks frequently to restore body energy.

Thank you for your help in making forest visits enjoyable and safe! Plan ahead by obtaining a National Forest map at one of the following offices:

Hume Lake Ranger District
35860 East Kings Canyon Road
Dunlap, CA 93621
[559-338-2251](tel:559-338-2251)

Kern River Ranger District
11380 Kernville Rd.
Kernville, CA 93238
[760-376-3781](tel:760-376-3781)

Western Divide Ranger District
32588 Hwy 190
Springville, CA 93265
[559-539-2607](tel:559-539-2607)

Forest Supervisor's Office
1839 S. Newcomb Street
Porterville, CA 93257
[559-784-1500](tel:559-784-1500)



During a Lightning Storm

Avoid mountaintops, ridgelines, trees, rocks, and boulder fields. Go to a low-lying area and move away from others in your group. Turn off your electronic devices and remove any metal objects you are carrying including jewelry, watches, keys, knife, etc. Make your body a single point ground by putting your ankles and knees together and then crouching down. This posture lessens your chances of being a lightning rod or of a charge entering one foot from the ground, traveling through your vital organs, and exiting through your other foot. Do not lie flat on the ground because electrical current from a strike can easily travel through your vital organs this way, too. If your hair stands on end, immediately take the above safety precautions. A lightning strike could be eminent.



Campfires

If you plan to build a campfire, you must obtain a **Campfire Permit**. The permit is free, valid for a full year from January 1 to December 31, and may be obtained in person from Forest Service, Bureau of Land Management, CAL FIRE offices, or online at readyforwildfire.org



Some areas restrict use of campfires and portable stoves during periods of high fire danger. In areas where campfires are allowed, use the following guidelines:

1. If there is a fire ring in place, use it rather than building a new one.
2. Build your campfire only in calm weather and keep the fire small.
3. Select a level spot away from overhanging trees, bushes or dry grass.
4. Keep away from the base of steep hills (fire travels uphill fast) and clear a 10-foot circle down to bare earth.
5. Use only a small amount of dead and down wood.
6. To put out your fire, let the fire die down, then pour water over the wood and ashes and stir. After the ½ hour feel the embers with the back of your hand. If you feel any warmth, repeat the drowning and stirring process.

Conclusion

These are tips and suggestions for traveling into the backcountry and should no way take the place of proper instruction and experience. This list is not an exhaustive list of situations to be aware, rather they are common concerns to be aware of. For more education about backcountry travel, contact your local college or university and enroll in theory based outdoor courses. Render the services of an experienced guide to teach practical and hands-on skills in outdoor travel. And yet another is to read books, watch videos, and media material to educate yourself