

# BACKCOUNTRY SAFETY REMINDERS

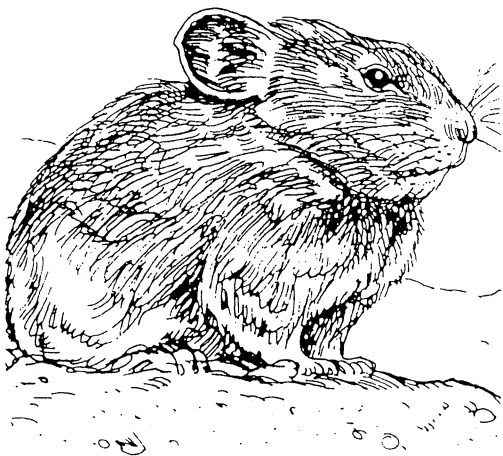
from the National Lightning Safety Institute  
[www.lightningsafety.com](http://www.lightningsafety.com)

## THUNDERSTORMS

Lightning is capricious and unpredictable. The danger can come upon you quickly. There is no defense against a "first strike." In most cases thunder is a very good advanced warning of lightning. Hear thunder? --- the associated lightning is within 6-8 miles so **Get Defensive Immediately**. See lightning but do not hear thunder? ---- the threat is farther away than your hearing range.

Safety means--- **AVOID** the high ground + **AVOID** metallic objects + **AVOID** solitary trees + **AVOID** water. **SEEK** cluster of small trees or bushes + **SEEK** lower elevations + **SEEK** safety inside a vehicle + Separate from others to reduce multiple injuries. Wait a minimum of 30 minutes before resuming outdoor activities after the last observed thunder or lightning.

Lightning victims' survival rate is 90%+. People struck by lightning do not retain an electrical charge so start CPR immediately. Keep the victim warm. Treat burns.



## HYPOTHERMIA

Hypothermia is the lowering of the body's core temperature to a level which impairs normal muscle and brain activities. It is a serious and sometimes fatal condition.

Hypothermia is generally brought on by exposure to cold. The windy, often wet, conditions of high elevations can produce hypothermia at temperatures as warm as 50 degrees F (10 degrees C).

Preparation is the best prevention for hypothermia. Carry adequate equipment for rapid weather changes. Always include rain gear, extra clothing for layering, a hat, and gloves.

Watch for these signs of hypothermia in yourself and others in your party:

- drowsiness
- loss of judgement or coordination
- reduced dexterity
- slurred speech
- uncontrolled shivering

If these signs appear, begin immediate treatment. Eliminate exposure to cold and wet conditions, move out of the wind, add layers of warm, dry clothing, and begin to rewarm the individual by administering warm, non-alcoholic liquids.

## SUNBURN

Ultraviolet radiation is more intense at high elevation. It is much easier to get severely sunburned at high elevation than at sea level.

Protect skin with long sleeves and pants, a hat, and frequent applications of sunblock. Protect the eyes with sunglasses. Keep a watchful eye on infants and children as even slight redness can indicate potential sunburn.

## DEHYDRATION

The low humidity and high winds common at high elevations can cause the body to dehydrate.

Dehydration can increase the risk of fatigue, hypothermia, and altitude sickness. Drinking plenty of water is the best protection against dehydration. Take precautions against "hidden dangers" like giardia when obtaining water from streams.

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## GIARDIASIS

Giardiasis is a debilitating intestinal disorder caused by drinking contaminated water. Symptoms, including diarrhea, gas, appetite loss, bloating and cramps, may not develop for several weeks. Do not assume that stream and lake waters are safe to drink. Boiling is the best purification method. Bring water to full rolling boil for 5 minutes. Water filters are also a good choice if effective against giardia (pore size less than 1/2 micron). Chemical disinfectants are not as reliable, but can be used in an emergency.

## AVALANCHE HAZARD

Steep slopes are subject to avalanches, depending on wind loading and the stability of the snowpack. All backcountry travelers should use good route selection, carry avalanche beacons and shovels, and avoid known avalanche paths, steep canyons and gullies.

## ALTITUDE SICKNESS

At 9,000 feet, oxygen levels are about half that at sea level. Less available oxygen affects everyone differently. In some individuals, the effects are slight, perhaps unnoticeable, while in others, the changes bring on the more severe reactions of mountain sickness.

Symptoms of altitude sickness:

- headache
- shortness of breath
- dizziness
- nausea
- fatigue
- nasal congestion
- rapid heartbeat
- diarrhea
- insomnia

If symptoms persist or worsen, go to a lower elevation as soon as possible and seek medical attention.

The best protection against altitude sickness is gradual acclimatization to higher elevation. Minimize risks by limiting strenuous activity the first few days. Rest, eat lightly, avoid alcohol, minimize caffeine, and increase fluid intake, particularly water.

## SURVIVAL ESSENTIALS

1. Water
2. Rain gear
3. Knife
4. Matches/fire starter
5. Sunglasses
6. Sunscreen/sunblock
7. Map
8. Compass
9. Whistle
10. First Aid Kit
11. Flashlight
12. Extra food

## WHAT TO WEAR OR CARRY

1. Long sleeved shirt
2. Long pants
3. Hiking boots
4. Extra socks
5. Stocking cap
6. Rain gear
7. Windbreaker
8. Snack food (high energy)

## WHAT NOT TO DO

1. Don't drink untested or untreated water.
2. Don't get off the trails.
3. Don't hike alone.
4. Don't push beyond limits of capability.

## WHAT TO DO IF YOU BECOME LOST OR CONFUSED

1. Stop, sit down, rest.
2. Don't panic.
3. Stay on an established trail.
4. Wait to be found.
5. Don't throw anything away, you may need it later.
6. Stay in a nearby open space during the day, and watch for aircraft.
7. Make noise or blow your whistle often.
8. Make a basic camp with a primitive shelter before night.
9. Make a small, smoky fire.

## BACKCOUNTRY SAFETY

The wilderness offers the risk and challenge of primitive America. To meet the challenge, consider these safety tips:

**Have a prepared route, carry maps and a compass.**

**Tell someone of your plans.** Stay within the limits of your ability. Wear adequate clothing (layering) and sturdy footwear.

**Be prepared for sudden changes in the weather.** Lightning and thunderstorms are common in the afternoons. Move out of high rocky areas and away from tall single trees during storms.

**Carry water or treat water before drinking.** The parasite Giardia is present and can cause illness.

**Carry first aid supplies, sunglasses, and sunscreen.** Hazards from the sun are increased at mountain elevations.



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