Guadalupe Mountains

National Park
National Park Service
U.S. Department of the Interior

Hiker Safety

Outdoor Hazards – Average Number of Deaths Per Year in the United States

Auto collisions with deer - 100
Lightning strikes - 86
Bee stings - 4
Domestic dog attacks - 20
Rattlesnake bites - 12
Black widow spiders - 3
Mountain Lion attacks - 0.33
(One every 3 years)

Evaluating risks

As with most activities, hikers face potential risks. Knowledge and preparation can increase your comfort level and reduce your chances of injury.

Many Park Rangers are trained as Emergency Medical Technicians and can offer advice and first aid. You can seek their assistance at the Headquarters Visitor Center or **during an emergency, by calling 911. Remember, you are responsible for your own safety. Hike smart!**

Lightning

Lightning may be the most awesome hazard faced by hikers. In our area, storms are common from May through September, and usually occur in the late afternoon or early evening. You can estimate the distance of a lightning strike in miles by counting the time in seconds between flash and sound and dividing by five.

The effects of being close to a lightning strike may be minor, such as confusion, amnesia, numbness, tingling, muscle pain, temporary loss of hearing or sight, and loss of consciousness. Severe injuries include bums, paralysis, coma, and cardiac arrest. Since injuries may not be obvious initially – burns and cardiac injury may not appear until 24 hours after the lightning strike – medical observation is recommended for all lightning victims.

Decrease your risk of injury from lightning:

- Get an early start so that you can finish your hike before storms erupt.
- Be aware of current and predicted weather. Watch the sky for development of anvil-shaped cumulus clouds. If a storm is building, descend to lower elevations.
- If a storm occurs, seek shelter. A car or large building offers good protection. Tents offer no protection.
- Turn off cell phones and other electronic equipment.
- If totally in the open, avoid single trees. Stay off exposed ridges.
- When caught in heavy lightning, the best stance is to crouch with feet close together, minimizing the opportunity for ground currents to find a path through the body. Crouch on a dry sleeping pad, if available.
- Stay out of shallow caves or overhangs. Large dry caves which are deeper than their width offer some protection; but do not lean against walls. Adopt the feet-together crouch.
- Valleys and ditches offer some protection. Avoid a depression with a stream in it.
- In forests, seek low spots under thick growth or smaller trees.
- Avoid standing water, fences, power lines, and pipelines. Discard metal hiking sticks.
- Groups should not huddle together. Scatter so if one person is injured, the others can help—stay at least 30 feet apart.

Mountain Lions

With their large size and very long tails, mountain lions are unmistakable. Adult males may be more than 8 feet in length and weigh an average of 150 pounds. Adult females may be up to 7 feet long and weigh an average of 90 pounds. Their tracks show 4 toes with 3 distinct lobes present at the base of the pad, which is generally greater than 1.5 inches wide. Claw marks are usually not visible since their claws are retractable.

Mountain lions take their prey, usually deer, by ambush. After spotting prey, a lion stalks using available cover, then attacks with a rush, often from behind. They usually kill with a powerful bite below the base of the skull, breaking the neck, then drag the carcass to a sheltered spot beneath a tree or overhang to feed on it. Often they cover the carcass with dirt or leaves and may return to feed on it over the course of a few days.

Although no one has had a physical encounter with a mountain lion at Guadalupe Mountains National Park, sightings have become more frequent in the last few years. Lions have increasingly shown more curiosity about people and less fear.

Even with this increased lion activity, your chance of seeing one of these elusive creatures is extremely low. A few simple precautions may reduce the risk of a dangerous encounter.

When you hike in mountain lion country:

- Travel in groups. Lions may key in on easy prey, like small children. Make sure children are close to you and within your sight at all times—**do not let children run ahead of adults!** Talk with children about lions and teach them what to do if they meet one.

If a lion is sighted, there are several things to remember:

- Do not approach a lion, especially one that is feeding or with kittens. Most mountain lions will try to avoid confrontation. Give them a way to escape.
- Stay calm; speak calmly yet firmly. Move slowly. Avoid prolonged direct eye contact.
- Face the lion and stand upright. Do all you can to appear larger. Raise your arms, or open your jacket.
- Protect small children by picking them up so they won't panic and run.
- Back away slowly, if you can do it safely. **Do not run!** Running may stimulate a lion's instinct to chase and attack.
- If the lion behaves aggressively, throw stones, branches or whatever you can get your hands on without crouching down or turning your back. Wave your arms slowly and speak firmly. What you want to do is convince the lion that you are not prey and that you may in fact be a danger to the lion.
- Fight back if a lion attacks you. People have fought back successfully with rocks, sticks, jackets, and their bare hands. Protect your head and neck with your arms. Remain standing or try to get back up.
- Please report all mountain lion sightings to a park ranger.

Rattlesnakes

Rattlesnakes are the only poisonous snakes found in the Guadalupe Mountains. They are recognized by the triangular, flat head, wider than the neck; vertical, elliptical pupils, and a heat-sensitive "pit" located between the eye and the nostril. Rattles are generally present, but may be broken off.

To avoid rattlesnake bites, stay on trails where you are more easily able to see a snake. Watch where you put your hands and feet; look around before sitting down. If you see a rattlesnake, leave it alone. Alert other members of your party. Do not attempt to move it; simply walk around it and continue your hike.

Rattlesnakes are protected in National Parks; it is illegal to harm them.

First aid for a snakebite:

- Get the victim away from the snake. Rattlesnakes strike across a distance equal to half their body length and can bite more than once. Do not attempt to capture or kill the snake.
- Remove constrictive jewelry such as rings and watches.
- Suction with a venom extractor is only minimally effective and must be started within two to three minutes. Do not attempt oral suction or incising the skin.
- Use a sling or a splint to immobilize the limb loosely; keep it below the level of the heart.
- Look for signs of envenomation: severe burning pain at the bite site; swelling starting within 5 minutes and progressing up the limb (swelling may continue to advance for several hours); discoloration and blood-filled blisters developing in 6 to 48 hours; and in severe cases, nausea, vomiting, sweating, weakness, bleeding, coma, and death. In 25% of rattlesnake bites, no venom is injected.
- If there are immediate, severe symptoms, keep the victim quiet; activity increases venom absorption. Have someone contact a ranger as soon as possible to begin evacuation.
- If there is no immediate reaction, you may choose to walk slowly with the victim to the trailhead. Begin evacuation as quickly as possible; contact a ranger for assistance. If evacuation is prolonged and there are no symptoms after six to eight hours, there has probably been no envenomation. However, all bites can cause infection and should be treated by a physician.
- Transport the victim to a medical facility where antivenin is available. The closest facility to the park is Carlsbad Medical Center, at the north end of Carlsbad, New Mexico on US 285 (2430 West Pierce); driving time is 1½ hours.

Do not use these methods to treat a snakebite:

- **a tourniquet**, which causes severe damage if wound too tightly.
- **cold or ice**; it does not inactivate the venom and poses a frostbite hazard.
- **the "cut-and-suck" method**; it can damage blood vessels and nerves.
- **mouth suction**; your mouth is filled with bacteria, and you may infect the wound.
- **electric shock**; no medical studies support this method.
- **alcoholic beverages**, which dilate vessels and compound shock.
- **aspirin**, which increases bleeding.

Heat Exposure

The body balances heat loss against heat gain to keep the core body temperature within narrow limits. With strenuous exercise in hot climates, heat gain can exceed loss. Core temperatures may rise, sometimes to dangerous levels. Dehydration exacerbates heat illness.

Heat Exhaustion develops over hours due to water and electrolyte loss from sweating; it causes collapse or gradual exhaustion with an inability to continue to exercise. Symptoms include headache, dizziness, fatigue, nausea, vomiting, muscle cramps, rapid pulse, thirst and profuse sweating, gooseflesh, chills, and pale skin, and low blood pressure—the victim may faint.

Heatstroke occurs in people who undertake heavy exertion in hot climates, and results in sudden collapse with extreme elevation of body temperature, decreased mental status, and shock. It is a medical emergency that can kill; begin treatment immediately. Symptoms include headache, drowsiness, irritability, unsteadiness, confusion, convulsions, coma, a rapid pulse and low blood pressure, and either dry or sweat-moistened hot skin.

Prevention

Drink plenty of water when exercising in hot weather, before feeling thirsty and after feeling satisfied. Drink enough to produce clear urine regularly during the day. Eat high carbohydrate foods for energy. Avoid heavy exercise in high temperatures and high humidity. Wear light-colored clothes that fit loosely and cover all sun-exposed skin surface. Avoid alcohol and caffeine; both increase loss of fluid.

Treatment

- Have the victim rest in the shade; remove excess clothing.
- Wet the victim to increase evaporation.
- Have the victim drink fluids; if available, add ¼ teaspoon salt and 6 teaspoons sugar to 1 quart of water.
- In serious cases, begin immediate, rapid cooling by one of these methods:
  a) Increase evaporation by sprinkling water on the skin and fanning vigorously.
  b) Immerse the victim's body in cool water.
  c) Place cold packs on the neck, abdomen, armpits, and groin.
- Stop cooling when mental status improves. Continue to monitor the victim.
- Contact a park ranger for assistance.

Hypothermia

Hypothermia is a cooling of the body core when more heat is lost than is produced, and can be life threatening. Wetness and wind are a lethal combination that chill a person more rapidly than dry cold. Hypothermia can occur in any season of the year: the hiker exposed to a sudden summer hailstorm while wearing only a T-shirt and shorts is more likely to become hypothermic than a well-dressed winter hiker. Windchill adds to the problem, but affects only the exposed parts of the body. Wearing windproof clothing reduces the effects of windchill.

Signs of mild hypothermia include progressively worsening shivering, uncharacteristic behavior, grumbling about feeling cold, inappropriate excitement or lethargy, poor judgement, confusion and hallucinations. The victim may experience stiff muscles and cramps, uncoordinated movements, and stumbling. Skin will be cold, pale and blue-gray due to constricted blood vessels.

As hypothermia becomes severe, shivering ceases. The victim's behavior changes from erratic to apathetic to unresponsive. The pulse becomes weak, slow, and irregular. Breathing slows, pupils become dilated. Eventually the victim will slip into a coma.

Prevention

Know the weather forecast; carry appropriate extra clothing, such as a water/wind repellent shell, jacket, hat and mittens, and a space blanket or tarp for shelter. Evaporation of sweat is a major source of heat loss during exercise; try to avoid sweating by wearing ventilated clothing. Watch for early signs of hypothermia, and act promptly to avert it. Gauge the day's activity to the party's weakest member; children are more prone to hypothermia than adults. Being exhausted, hungry, dehydrated, or demoralized prevents a proper response to cold and hastens the onset of hypothermia.

Treatment

- Do not delay.
- Find shelter out of the wind.
- Remove wet clothes and replace with dry; add layers and a wool cap to increase insulation.
- Give food and warm, sweet drinks.
- If the victim is shivering strongly, place victim inside a sleeping bag well-insulated from the ground.
- If the victim responds to rest and warmth, he may be able to continue hiking.
- For severe hypothermia, provide heat to the victim's trunk after rescue by whatever means are available — body-to-body contact, hot water bottles, chemical heating pads, hot rocks wrapped in clothing. Place the heat sources in the groin and armpits and alongside the neck. Always have clothing between a heat source and the skin to prevent burns.
- Never leave a hypothermic victim alone.
- Contact a park ranger for assistance.