

---

*Please take these words seriously. There are real dangers when you recreate public land, but you can reduce or avoid these dangers by understanding your outdoor environment and planning accordingly. Returning from a trip safely and uninjured will certainly make the trip more rewarding.*

---

## PLANNING

Planning before you leave town is the most critical factor in having a safe trip. Know where you are going, who you are going with, and when you will return. Let somebody know where you will be and when to expect your return. *Remember, there is safety in numbers, and having a partner for your outdoor activities will improve safety for both of you.* Take maps and compass, and know how to use them. Talk to experts from land management agencies to learn about local conditions where you are going.

## WATER

The most critical factor for human survival is water. You can live for weeks without food, but only a few days without water. Always carry extra water with you, whether you are driving, hiking, biking, or riding. Desert heat can lead to dangerous dehydration very rapidly. If you become stranded, conserve your water by travelling during the cooler times of the day or night in the summer, and resting in the shade during the hottest periods. Most people need at least two gallons of water per day in the summer heat. It is a good idea to always keep a few gallons of extra water in your vehicle regardless of the weather or times of year. If you are backpacking, carry a water filter since you will not find water that is safe to drink.

## FOOD

While a person can live without food for weeks, food is important for maintaining your energy level which helps you deal with emergency situations, keeps your morale up, and helps you stay warm in the winter. Keep emergency, high energy food with you like granola bars or energy bars. MREs (Meals Ready to Eat) are available at Army surplus suppliers, and while not gourmet cuisine, these contain high amounts of energy and can be kept in your vehicle or pack for years without spoiling.

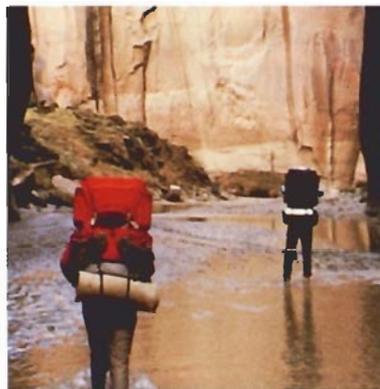
## CLOTHING

Take appropriate clothing with you for the full range of possible weather conditions that you may encounter on your trip. Boots will help protect your feet from the thorns and spines of cacti, agaves, yuccas, and other shrubs in addition to venomous snakebite. Hats, sunglasses, and sunscreen will help protect you from the sun's heat and damaging radiation.

It is a good idea to keep rain gear in your vehicle or pack at all times, since staying dry is the most important part of

staying warm. Remember that in desert mountains, temperatures can vary up to 50° between day and night. When you go out in pleasant conditions, cold fronts and precipitation can cause dangerous drops in temperature. An extra shirt, sweater, or light jacket and a water repellant layer can keep you comfortable in miserably cold weather.

Wool clothes are excellent in winter storms because wool retains its insulating quality even when wet.



In the summer, wear loose fitting, light-colored cotton clothing. Light colors reflect light and heat, and cotton allows air to pass through so that evaporation will keep your skin temperature

down. Splashing a little water on your clothes will provide evaporative cooling that can help keep you comfortable. A slicker or poncho takes up very little space, but is invaluable if a drenching summer thunderstorm occurs.

## GETTING LOST

If you get lost, it is generally better to stay where you are than to wander all over. Build a fire to keep you company and to help searchers find you. A mirror or a piece of aluminum foil can be valuable for flashing sunlight toward potential rescuers. Explain to children the importance of staying put and conserving their energy if they are lost, and of not running from searchers. Tell children that "when they are lost", they need to not be scared of strangers, since the searcher who finds them will probably not be someone they know.

## HEAT & COLD

Exposure to heat can cause cramps, heat exhaustion, and heat stroke. Painful muscle spasms, usually in the leg and abdomen, are the first signs of heat stress.

Heat exhaustion is more severe. Symptoms include cool, moist, pale, or flushed skin; and headache, nausea, dizziness, weakness, and exhaustion. Heat stroke is a severe heat emergency characterized by hot, dry, red skin; unconsciousness; rapid, weak pulse; and rapid, shallow breathing. For any heat stress, get the victim to rest in a cool location, and give them small amounts of water or sports drinks. Loosen tight clothing and apply cool, wet

cloths to their skin. **DO NOT** give salt tablets or salt water. If a heat stress victim refuses water, vomits, or loses

consciousness, continue to cool their body, and get them emergency medical care.



Hypothermia is a dangerous drop in body temperature that can happen quickly when someone gets wet, or when it is very windy. Shivering, numbness, a blank look, and unconsciousness are signs of hypothermia.

Get the victim out of the cold, and out of wet clothes. Dry the person and warm them gradually in dry clothing or blankets. If the victim has lost consciousness or has stopped breathing, get them emergency medical care.

## LIGHTNING

Lightning kills approximately 75 people each year in the United States. Lightning occurs frequently in the desert and mountains during thunderstorms, even if no rain is falling. If you see gathering storm clouds or lightning, or hear thunder, there is a growing risk that lightning could strike. Take cover in a vehicle or building if possible.

Otherwise, move to low areas like canyon bottoms instead of ridge tops. Don't take cover under tall trees, but if you are seeking shelter from the rain, choose a tree that tops out below the canyon sides and below other trees. If you are on a barren area and lightning is getting very close, lay flat on the ground in a depression. You can tell how close lightning is by counting the seconds between the time you see the lightning and hear the thunder. The lightning is about a thousand feet away for each second you count. Take cover when lightning is within a few miles (15 seconds), don't wait for the lightning to get dangerously close before you decide to take cover.



## FLASH FLOODS

Intense summer thunderstorms can cause locally heavy runoff. This runoff becomes more concentrated in canyon bottoms and arroyos, and can form walls of water or create temporary rivers. These flash floods can occur many miles away from where it is raining, even under blue skies. Do not park or camp in arroyos or canyon bottoms if there is a chance of thunderstorms in the area. If you see a flash flood, don't try to drive through it, but wait for the water to subside.

## WILDFIRE

Fire is a natural phenomenon in nature. Usually caused by lightning, fire allows recycling of nutrients and provides for habitat health and diversity that is good for plants and animals. However, people are not adapted to withstand direct exposure to wildfire. In some areas, grazing has been excluded, allowing a buildup of fine fuels. As a result, there is a potential for fire to move very quickly. Similar conditions may be found in some of the Wilderness Study Areas, National Forests, and other public and private lands. In order to avoid a wildfire, please remember the following points.

- ▶ Fire is not a toy. Please do not play with fire, matches, or fireworks on public land. Stir water into the coals of your cooking fires until they are cold to the touch before you leave. Do not burn your toilet paper, but bury it instead.

- ▶ Fire travels rapidly uphill and with the wind. Never go uphill or downwind from a fire unless there is a large, open area away from grass, brush, and trees that you can reach quickly. Climb onto barren rocks or bare dirt at least 30 feet away from vegetation and away from cliff edges where heat can flow upwards. If you are in the desert or mountains, look for an area around a livestock water or water body where there is no fuel. Parking lots, dry lake beds, and borrow pits are also good safe zones.

- ▶ Report any wildfire to the local public land management agency or fire department, but do not endanger yourself trying to report a fire. Do not try to fight a fire unless you have proper training and equipment including fire resistant clothing (Nomex).

# RATTLESNAKES & OTHER REPTILES



Rattlesnakes are the only venomous snakes in New Mexico except for the Arizona corral snake, which occurs only in Hidalgo and Grant Counties. Many harmless and beneficial snakes are killed each year because they mimic coral snakes or act like rattlesnakes. All rattlesnakes are venomous, with larger animals being generally more dangerous because they can deliver more venom. Venoms vary in strength between different species, between individuals within a species, and even between different times within an individual snake. Approximately half of the rattlesnake bites are dry, meaning they don't always inject venom to protect themselves. This is advantageous to the snakes, since they need their venom to catch food.

Snakebites kill less than 20 people per year in the United States, less than some other animals that are usually considered less dangerous. For example, spiders kill about 50; dogs 65; bees 70; and horses 200 people per year in the United States. Most people who get bitten by snakes are trying to tease, catch, or kill them.

Remember, rattlesnakes can be found anywhere in New Mexico, from the middle of cities to wildlands, from deserts to grasslands to mountains. The best snakebite safety is to avoid being bitten. Watch where you walk, put your hands, and sit. Don't step over rocks or logs, or through thick vegetation where visibility is poor. If you see a snake, leave it alone and it will leave you alone. Believe it or not, snakes are more scared of you than you are scared of them.

If someone is bitten, it is important for them to remain calm and seek immediate medical attention. The bite should not be cut into, which can cause far more severe damage to blood vessels, connective tissues, and muscles than the snakebite itself. The site of the bite should be kept below the level of the heart. Commercial snakebite kits are fairly worthless or even dangerous, since they contain a razor blade that people use to cut into themselves. Also, the suction cup is not strong enough to remove venom, which binds almost instantly to the victim's tissues. A device called an "Extractor" can be used to effectively remove some of the venom if it is applied immediately. A restrictive bandage may be used, but never apply a tourniquet unless you are sure it is necessary to sacrifice a limb to save a life. Bring the snake along for identification if you can do so safely, even just the tail end of the snake. Remember that a dead rattlesnake can still give a lethal bite! The only other venomous reptile in the United States is the Gila Monster. It is a large, orange and black banded lizard, and it is protected by law.

## BEES

Bees are dangerous if you are allergic to their stings, or if they attack you in large numbers. Watch for bees flying in and out of holes in rocks or trees, which probably denotes a hive. Do not disturb hives. Bees can attack aggressively in swarms and be very dangerous. Africanized (killer) bees have been found in Doña Ana County and other counties in Southern New Mexico. They are not more venomous than native bees, but are more easily excited into attacking.

If you are attacked by bees, run and try to get inside a vehicle or building. Even if some of the bees get in with you, stay inside if most of the swarm is left outside. Remove the stingers by gently scraping them away from your skin with a fingernail or the edge of a credit card. Do not try to grab them with tweezers or fingertips as the venom sack stays attached, and you can squeeze more venom into the sting. If someone starts swelling considerably, changing colors, or has difficulty breathing following a bee sting, he or she may be having an allergic reaction and will require immediate medical attention. Most fatal bee stings are caused by allergic reactions leading to shock.



## MOUNTAIN LIONS

Mountain lions are common in the Organ Mountains and many other desert hills. They eat mostly deer, and are very shy, usually running away from people. They rarely attack people or domestic animals unless they are having trouble catching deer because of injury, old age, or lack

of deer. However, in recent years, mountain lion attacks on humans have increased because more people are spending more time in mountain lion habitat. If you see a mountain lion, do not run from it, or it may think you are something good to eat. Stand your ground. If it starts sneaking toward you and twitching its tail, it may be about to attack. Lift your shirt or jacket up over your head to appear larger than you are. Yell at it loudly and wave your arms or throw rocks at it, and it will probably go away. Do not leave children or pets unattended. If you are attacked, fight back as hard as you can with rocks or whatever is available.

## SPIDERS & OTHER ARACHNIDS

There are venomous spiders, scorpions, and insects almost everywhere. If you are bitten or stung by one, seek medical attention. Bring the animal along for identification if you can do so safely.



The black widow is the most common venomous spider in this area, and is responsible for about half of all venomous spider bites in the United States. It has a large, shiny black body with a red hourglass on the belly, and may have white and red markings on the back. It



builds a messy-looking web under rocks, logs, and other debris. Other venomous spiders in our area include the brown recluse and many species of small spiders.

Scorpions are abundant in the desert. The scorpions in this area do not have the high potency venom of those in some other parts of the world, but a sting can be dangerous to someone who is allergic to the venom. Scorpion stings are generally quite painful for a short time. There are vinegaroons, sun spiders, and other arachnids that look like scorpions but are not venomous.



# BLM

## HAVE A SAFE TRIP!

*On Public Land...*

