

White Mountain Monsoon Hiking

Finally - it's raining! As much as we enjoy this area with few mosquitoes and ticks (relatively speaking), low humidity and moderate temperatures, it can get old when every summer we are wondering if a fire is going to break out close to town and force evacuation of a White Mountain community. You can't beat the fantastic vistas and miles of a well-maintained and mapped trail system. Add to that the wide diversity of wildlife and unique high elevation flowers and you have hours of enjoyable exercise. But the summer monsoon season is a welcome change, even if storms can rumble through with unexpected schedules and intensities, since the storms wash away most wildfire threats.

However, this area also poses some increased risks during our monsoon season that can turn a relaxing jaunt down a scenic trail into a regrettable nightmare that could have been avoided with a little preparation and common sense. Most people realize that rocks get more slick and can roll when wet, causing sprained or broken ankles and wrists or worse. Fewer folks understand the significance of a cold August rain on a family of hikers clad in thin cotton t-shirts or shorts.

Hypothermia, a potentially fatal drop in your body temperature, usually from getting wet, can happen with air temperatures in the 60s. A simple insulating layer or waterproof rain gear can buy you enough time to get back to the trail-head before you get too chilled. A large garbage bag can be packed as an emergency poncho by tearing a hole in the side of it near the normal bottom for your face when you pull it over your head. Younger hikers with smaller bodies can lose heat faster than adults so make sure to pack extra layers for them. Since exhaustion can make you more susceptible to hypothermia, be sure you're rested and well fed prior to your outdoor excursions.

Another serious risk with hiking during the monsoon season in the White Mountains is getting struck by lightning. More than 30 people are killed every year in the United States and hundreds more are injured, some with permanent disabilities. The chances of getting hit in the next year might be about one in a million but the chances of getting struck by lightning during your lifetime, if you recreate outdoors, is down to about one in 12,000 according to the National Weather Service. Hiking in the Grand Canyon? Be ready for 26,000 lightning strikes this year, mostly during the summer, says the National Park Service.

So, how do we avoid becoming a victim of Mother Nature's deadly static discharges? The best and easiest recommendation is to avoid hiking in sketchy conditions. Check weather reports and alter your plans if necessary since, once you get out there, there's no guaranteed safe place to take shelter in a bad storm except for your metal-roofed vehicle. During our heavy monsoon period, we can count on storms almost every afternoon so smart hikers start early in the morning and finish their hikes before the storms build up, all the while keeping a keen eye to the sky. With cell phone coverage, you can monitor approaching thunderstorm cells through apps like *My Radar Pro* and allow yourself enough time to get back to shelter.

Storms rumble in and out of the White Mountains constantly during the monsoon season so how can you tell when lightning producing storms are too close? They sell electronic products that will measure static electricity and warn you when lightning is possible. However, there are some commonsense

rules you can follow without spending a dime since no instrument can predict the first strike or the location of the second one. Professionals who work in the outdoors commonly use the 30/30 Rule which states that if thunder reaches you within 30 seconds of the flash, you are at risk for getting struck. The rule also advises waiting 30 minutes after the last lightning strike before leaving your safe shelter. Lightning can strike up to 25 miles away from any rainclouds in what is termed a “bolt from the blue” referring to the sky above. There are actually two types of lightning, with the less common positively charged bolts more dangerous than the negative ones.

A common fact among many lightning victims is that they were on their way to find shelter when struck. This means that most people killed or injured were just seconds from safety but didn't make the decision to seek shelter soon enough.

The safest shelter is inside a substantial building with grounded plumbing or in a metal topped car with windows closed but that's only likely available at a trail-head. If using the cement block latrines, don't lean against the walls or metal door or stand in a puddle of rainwater. Rubber tires on a motorcycle or ATV do nothing for protection and it is unsafe to use these vehicles during a storm. Tents, sheds and the Easy-Up type canopies should also be avoided.

If you are caught out on the trail when the air lights up, try to find the lowest area quickly that will not get flooded. Dense areas of small trees or large shrubs that are more than 100 feet from tall objects might be the best you can do. Get away from tall trees, ridges, hilltops, open meadows and metal trekking poles, metal-framed backpacks or water bottles. Rocky overhangs on an exposed cliff are not safe shelters either. Beach your boat immediately and walk away from the exposed shoreline. Never lie down on the ground as you'll become a better conductor. When appropriate, spread your large group out into smaller ones if there are enough shelters for everybody.

Most victims of lightning strikes get shocked through the ground when within 60 feet of where the bolt struck. It is less common for someone to get struck directly unless they are in an open field or in a boat. Direct strikes can be the most deadly which is why people fishing are the most likely fatalities. People also get injured by lightning when they are holding on to or are near metal wires, fences, machinery or plumbing. Lightning can travel long distances along barbed wire fences.

Since ground conduction of lightning is very common, the experts recommend that you minimize your contact with the ground by standing with your feet as close together as possible but crouch down into a ball. The farther apart your feet are, the more current will travel through your body. That is why farm animals and wildlife with widely spread legs are often killed by lightning.

People can sometimes, but not always, sense static build-up prior to a lightning strike. Hair can stand on end and people have reported tingling sensations. If this happens, run to shelter immediately or assume the position described in the previous paragraph. Do not take the time to renew your life insurance policy over your phone app. It's too late.

If someone in your group should unfortunately be struck, they do not retain a charge and are completely safe to handle. Just make sure it is safe to move them to a more sheltered area and immediately begin first aid. Call 911 if possible and be prepared to give them your GPS coordinates or

exact location. If your cellular signal is not strong enough for a voice call, try texting since those messages can be sent with a weaker signal. Bolts burn because they are 4-5 times hotter than the surface of the Sun. Many burns occur internally and are not readily apparent. Victims commonly suffer cardiac arrest from the shock and can be revived with basic CPR. Check for a pulse and breathing before performing CPR. Prompt return of blood circulation will prevent irreversible brain damage. This is one more reason to learn CPR and wilderness first aid and might just get you invited on more hikes with friends.

Simple precautions and advanced planning can still allow us to enjoy the miles and miles of beautiful hiking trails in the area. Hopefully, one of the 20 million lightning bolts hitting the ground this year in the United States doesn't find you or your hiking group. Don't count on being as lucky as National Park Service Ranger Roy Sullivan who was struck seven different times and lived to tell about them all! Some of us who are fortunate to work outdoors have had too many close calls not to respect the power of lightning. Call us chicken or call us old, we don't care. At least we'll be crowing another day to hike, fish, hunt and enjoy the White Mountains of east-central Arizona.