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# The Complete Technical Guide to Hiking and Backpacking in the Buckeye State

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## Backpacking in Ohio

The scenic southern and southeastern regions of the state are home to most of the overnight hiking opportunities in Ohio. This part of the Buckeye State lies in the unglaciated Allegheny Plateau, a physiographic region uplifted millions of years ago by the same forces responsible for pushing upward the Appalachian Mountains, just a mere 60 miles to the east of Ohio's eastern border. Over the millennia, streams and rivers cut into this plateau and carved the hilly landscape we see today. Except in fertile river bottoms, the thin soils and rocky slopes characterizing much of this ancient landscape are not able to sustain agriculture activity, leaving a region of forested hills.

Though not as dramatic as the Appalachians, terrain relief (the elevation change between a valley floor and an adjacent high point) in Ohio does reach nearly 800' in eastern Adams County between the valley of Ohio Brush Creek and the top of Greenbrier Ridge, but averages between 300' – 400' over most of Ohio hill country. With a few exceptions, this is also the maximum relief any backpacker in Ohio will have to worry about overcoming on a single uphill climb. Well within the capabilities of any average weekend warrior.

Not much time has to be spent on Ohio's backpack trails to realize, at a glance, that any one trail resembles all of the others: a thread of a well-worn path winding over forest-covered hills. Except for sections of lakeside walking on trails at Lake Vesuvius and Burr Oak, for example, plan on hiking among the trees. This is not an entirely bad thing though, as there are many wonderful sections of footpath snaking through beautiful Ohio deciduous forests. The effect of all these trees, however, is the limited number of far-reaching vistas to be found on Ohio's backpack trails.

The forests in Ohio hill country are dominated by upland mixed oaks on south- and southwest facing slopes and sandy ridges and oak-hickory communities on lower hills. Native pines occasionally grow in mixed oak forests on dry, rocky bluffs and ridges. Large groves of pines visited on the trail are most likely not natural. Mixed mesophytic forests occupy the more temperate north- and east-facing slopes and better-drained bottomlands. These forests include tulip tree, maple, ash, cherry, walnut, basswood, beech and oak. Wetter bottomlands are home to willow and sycamore. Cooler ravines and steep, north- facing slopes are home to hemlock. Campsite 6 along the Shawnee Backpack Trail, one of Ohio's most remote camps, is located in a picturesque stand of hemlocks at the confluence East Fork and Bald Knob Runs.

Gone are the days when wolves, mountain lions, elk and buffalo inhabited Ohio's forests. Hikers today are more likely to see white-tailed deer, wild turkey, fox, beaver, raccoons and a host of smaller woodland residents like squirrels and chipmunks. Black bears are again walking in Ohio forests. State wildlife officials estimate the bear population to be around 100, with the heaviest concentration in northeastern Ohio and smaller numbers in eastern and southern areas. Females with cubs have been reported, indicating Ohio bears are breeding. It is unlikely you will sight a bear while on the trail, but if you do, consider yourself quite lucky, and perhaps inform a state wildlife official.

Ohio is home to three venomous snake species, two of which Ohio backpackers should familiarize themselves with: Northern copperhead and timber rattlesnake. The third, the Eastern massasauga, is found mainly in northern and western Ohio. On the trail, an encounter with either viper is unlikely. The copperhead is the state's most numerous and frequently encountered venomous snake. It is typically nonaggressive and will only take a defensive posture when directly threatened. Bites are painful and can cause illness, but rarely results in death. Timber rattlesnakes are an Ohio endangered species. Like the copperhead, until directly threatened they remain mild in disposition. Their bite is more serious but again rarely results in death. Both species are found in rocky crevices. Copperheads are the more likely of the two to be found inhabiting moist areas, woodpiles or old buildings. Both snakes hibernate in the winter. Treating snakebites is covered in the First Aid section.

Hidden below a diverse canopy of trees amid the seemingly repeating landscape lies the secret to enjoying backpacking in Ohio. The path hiked will take you on a journey through rich plant communities, alongside, and even through, gurgling streams, into steep-sided hollows then onto narrow ridge tops, past intriguing rock outcroppings, and even one natural arch. You'll walk on old roads, through old homesteads and past relics of man's impact on the land. Along the way you will stop to immerse yourself in the solitude, revel in the fact of being the only person within a mile radius and stop to listen to the sounds of nature. Your heart will jump when a startled deer startles you, when your presence rouses a turkey flock or a mysterious noise is heard on the trail ahead. Enjoy the hike!

## When to Go

Aside from sectional closings or re-routes, Ohio's backpack trails are always open. Ohio is a state where a change in the season brings a new look to the landscape. Weekends during peak fall foliage are the most crowded time of the year. Some trailhead parking lots will be overflowing with vehicles. Rightfully so, this is a wonderful time to hit the trail in Ohio. After leaf drop in late October through mid-April, the landscape will be open. This is a great time to be out if

you enjoy surveying the lay of the land. You can often catch a nice ridgetop vista through the trees if you happen to look in the right spot. Snakes and pesky insects are almost of no concern. If you're able to get away for a night or two during the week, chances are you'll be the only one around. Shorter days will give you less time on the trail and more time in your tent.

As May, June and July roll around the forests undergo a spectacular growth from bare to lush and green as the canopy closes in and understory fills in. If your interest is wildflowers, then April and May is your time to hit the trail. Both resident and migrating birds will fill the air with a chorus of songs, all in search of a mate. Hiking remains pleasant through June, but lightly traveled trails will start to become overgrown and difficult to follow in places. Once the calendar hits July the temperatures and humidity rise almost in unison. This is also the time to usher in the bug repellent as mosquitoes and biting flies can be a real nuisance. Their presence will be felt through September, and even warmer days into early October. As if flying insect pests aren't enough, add an annoying little black and white angular-looking spider named the Spined Micrathena to the mix. They enjoy weaving webs across the trail starting in mid-summer, most often at head level. On lightly traveled trails it is advisable to wave a stick in front of you as you walk to avoid a head-on confrontation--literally. They are otherwise harmless to humans.

## **Hunting Seasons**

Hunting seasons for a variety of game are open throughout most of the year. Hunting is allowed just about anywhere on state and national forest lands and at some state parks. The most important season of concern to backpackers is deer-gun season. Including dates for muzzleloader and youth hunts, deer-gun season occurs on multiple, non-consecutive date ranges of various lengths in a late October through December timeframe. Open gun season usually occurs for one week following Thanksgiving. This is the height of deer-gun season and the least safe time to plan a trip. Consider wearing a blaze orange article of clothing or wrapping an orange safety vest around your backpack on any outings during deer-gun season. Check with the Ohio Department of Natural Resources (ODNR) Division of Wildlife for exact hunting dates. On the Internet, the Division of Wildlife can be accessed through [www.ohiodnr.com](http://www.ohiodnr.com).

## **Preparing for your Trip**

Just because you are hiking in the seventh most populated state, don't expect one of Ohio's great citizens to be in earshot of your cries for help after negligent trip planning leaves you in a precarious state. Remember, the lands you are walking on are state or federally owned parks or forests, which means no people live there. True, you don't have to worry about altitude sickness, tumbling down a scree slope or being attacked by a Grizzly in Ohio, but twisting an ankle or getting lost in Wayne National Forest or in Shawnee State Forest during a solo trip certainly poses risks of its own.

## **Gear**

There are many good books and online resources covering the techniques of hiking and backpacking ad nauseam, so that material will not be discussed in detail here. For reference, a list of basic gear you may need on your trip is provided in the next section. Hiking in Ohio typically does not require any unique pieces of gear. Most of the gear you have purchased was probably chosen by recommendation or personal preference and will suffice on the trail. Common sense packing based on weather forecasts, seasons, etc. will determine what items find their way into your pack. When in doubt, packing a little extra and being prepared is always better than under packing and being unprepared.

Most of Ohio's backpack trails are constructed of compacted dirt, occasionally interrupted by roots and rocks. A quality, sturdy hiking shoe or boot is always recommended over athletic footwear, even though trails here are a little more forgiving on your feet and ankles than mountain trails. Wearing waterproof footwear will save you from wet feet after an accidental slip during one of the many stream crossings you'll encounter. Lightweight, collapsible trekking poles have gained popularity in recent years and serve the role as a supporting "third leg", thus reducing the impact of hiking on leg muscles and knee joints, resulting in increased stamina. Poles are helpful in providing extra balance on uneven sections of trail or when crossing a stream or stepping over a downed tree. Buy models containing built-in shock absorption. If you prefer one unencumbered hand, then consider carrying a collapsible hiking staff.

For those new to backpacking, it is important to understand that you may not get it right the first time. Backpacking takes practice, and only experience on the trail will tell what pieces of gear work and don't work for you. Until you've worked out the major kinks, it is best to stick with single night trips of easy to moderate distance. In the end, you'll learn a lot about yourself and what your capabilities are. Once you figure out the magic formula, the experience only gets better.

## **Basic Backpacking Gear List**

Backpack  
Food  
Water  
Extra clothing/socks  
Sleeping bag and pad  
Tent with rainfly  
Groundcloth  
Camp pillow  
First-aid kit  
Insect repellent  
Map  
Flashlight/headlamp  
Compass  
Watch  
Cell phone  
Camera  
Knife/multi-tool  
Emergency whistle  
Raingear  
Waterproof matches  
Stove  
Cook set & utensils  
Biodegradable soap  
Sunscreen  
Hand Towel  
Toilet paper  
Personal toiletries  
Rope for hanging food  
Duct tape for emergency repairs  
Waterproof stuff sack  
Water purification (filter or tablets)  
Resealable plastic bags for trash/storage

## **Basic Day Hike Gear List**

Daypack  
Energy snacks  
Water  
Extra socks  
First-aid kit  
Insect repellent  
Map  
Flashlight/headlamp  
Compass  
Watch  
Cell phone  
Camera  
Knife/multi-tool  
Emergency whistle  
Raingear  
Waterproof matches  
Sunscreen  
Toilet paper/wet wipes  
Emergency thermal blanket

## **Food**

It doesn't matter if you're on an overnigh<sup>er</sup> in Wayne National Forest or spending a week on the John Muir Trail in the Sierra Nevada Mountains--you gotta eat. The good thing is you'll burn between 2,500 and 4,000 calories per day

on the trail, so that candy bar you'll have halfway through your day's mileage will be incinerated before it has a chance to come close to your waistline. A candy bar or two is okay for a little indulgence, but for the long haul you'll want to rely on carbohydrates and proteins. "Grazing" on fast-snacks such as nuts and dried fruits throughout the day provides your muscles with a stable flow of energy and is a smarter strategy than stopping for one large lunchtime meal. For meals at camp, consider quick fix low-weight, low-bulk foods such as pasta, rice, quinoa or soup mixes. Powdered drink mixes can offer a nice break from plain or treated water. Instant oatmeal and granola bars are easy choices for breakfast. When preparing for your trip, pre-package your meals in heavy-duty resealable plastic bags, they will keep your food from getting wet and then can double as trash bags. In recent years, freeze-dried foods have improved considerably in taste. The convenience does come at a price though, between \$5 and \$7 for one entrée, or about the same cost as a modest meal at a small town diner, and probably better tasting. Is the cost justifiable? You'll have to consider if, at the end of a long day, you are going to have enough energy to do more than boil water.

## Water

At 8 pounds per gallon, water will be the heaviest single item in your pack. Just to satisfy your body, figure on swallowing at least one gallon per day while on the trail. No matter how clear water appears, it is never advisable to drink water directly from a stream or lake with out first boiling, filtering or chemically treating it. Natural water sources can contain nasty little microscopic pests and chemicals. Giardiasis is the most common ailment contracted by drinking straight from a natural water source. Giardiasis is a diarrheal illness caused by a one-celled, microscopic parasite, *Giardia lamblia*. It spreads when mammals defecate into a stream or lake. If ingested by humans, Giardia is likely to cause diarrhea, cramps, nausea and bloating. Symptoms of giardiasis normally begin 1 to 2 weeks (average 7 days) after becoming infected, and may last 2 to 6 weeks. Prescription drugs are available to treat Giardia.

Carrying your own water from home or a reliable source is the most assured way to avoid contaminated water in the backcountry. However, multi-day trip plans may not make this practical. One option is to cache water somewhere along your planned route prior to stepping out onto the trail. In Ohio, most backpack trails cross at least one road along the way. A water jug hidden under sticks or rocks at the intersection of trail and road can serve as a functional refueling station. Many state park and state forest overnight trails have been designed to eliminate water worries by making potable water readily available along the trail or at designated camping areas. It is not an uncommon practice for backpackers to assume the tanks will be full at these locations and carry only enough water for drinking while on the hike in. It is always advisable to carry some water for emergency backup and to call trail administrators for the status of water at these supplied points prior to your trip. Wayne National Forest trails have no supplied water sources, so water will need to be carried, cached or treated (see below).

Treating raw surface water is yet another option for collecting safe drinking water in the backcountry. The four methods for accomplishing this are: boiling, filtration, chemical treatment and UV light. Boiling is 100% effective against parasites and viruses. The U.S. Environmental Protection Agency (USEPA) and the Center for Disease Control (CDC) both recommend bringing water to a rolling boil for one minute to kill microorganisms. The drawbacks are the drain on your fuel supply and the "flat" taste of water after boiling. Purifying water through a mechanical filter containing a very fine porous element has become the most popular water treatment method for backcountry visitors. For Giardia, the CDC recommends using a filter that has an absolute pore size of 1 micron or smaller. Most filters designed for backpackers will have pore size much smaller than that, commonly 0.2 microns. Filters require hand pumping and can be a chore to operate but are portable and lightweight. Proper cleaning is necessary for maintained maximum efficiency.

Chemically treating water with iodine or chlorine dioxide is common lightweight method of water treatment. Consumer products in tablet form are available for backcountry travelers (e.g. Potable Aqua, Aquamira). One of the biggest drawbacks of chemical treatment, especially iodine, is the unpleasant taste of treated water. Additionally, chemically treated water is not available for immediate consumption. A period of time, approximately 30 minutes, must elapse to allow for the products to work. Finally, in recent years, products have appeared on the market using ultraviolet light to essentially neutralize bacteria, protozoa, and viruses. This method works fast and leaves no chemical aftertaste. Battery operated handheld devices like the SteriPEN are a popular choice. These devices work best with clear water. Silty water must be strained first using a bandana or other available material that will allow water to pass through.

Ohio averages 35 inches of rainfall annually and streams are plentiful in hill country. Finding backcountry water sources suitable for purification using any of the methods described above usually isn't a problem, except in periods of extended dry weather. When selecting a water source, choose calm clear pools over more turbulent flow. Try to avoid drawing water from large, murky lakes, which, if using a filter, will cause more rapid clogging. Instead, along lakeside trails at Burr Oak and Lake Vesuvius, for example, draw and treat water from clearer feeder streams. Any stream contaminated by acid mine drainage, called a yellowboy, and distinctively yellow or orange in color, should be avoided at all costs.

## Itinerary

An itinerary is a plan of your proposed hike: start date, number of nights, proposed campsites, return date, etc, and someone other than just you should know what it is. Even though most state managed trails require you to register at the trailhead, your hike itinerary should always be left at home with a family member or friend, along with a contact phone number of the park or forest headquarters in case you do not return as scheduled. Wayne National Forest trails do not require registration, thus emphasizing the importance of notifying someone of your plans. In addition, follow your itinerary as closely as possible. Greatly altering your plans mid-trip could have search and rescue (SAR) personnel searching in the wrong areas in case a mishap causes you to miss your scheduled return.

## Cell Phones

In Ohio's hill country, reliable cell phone service is largely restricted to population centers and major highway corridors. The most likely location to receive a signal along the trail will be at high elevations atop hills and ridges. The hills will block signals from reaching valley locations. Other factors affecting the quality of service include weather conditions and cell phone carrier. Cell phones can be an important safety item to have on you but should never be relied on to bail you out of a jam--never overlook other safety precautions. If you choose to carry one, keep it turned off until needed to save battery power, which is more rapidly drained when phones are in roaming mode or searching for service.

## Navigation

Fortunately, on Ohio's overnight trails about the only navigation skill required is where to look for the next trail marker. You'll find most trails to be adequately marked by either a paint swatch (blaze) or plastic colored symbol, with side trails and day-hike cutoffs typically marked in an alternate color. It is not uncommon, though, to find unofficial trails intersecting the official trail or for the official trail to exit a section of road walk relatively unnoticed. If it is realized you are not walking the officially marked trail, return to the last marked location and consult a trail map.

A trail map is an important navigational aid to have in your possession, even if you never pull it out of your pack or pocket. Trail maps are available at the trailhead of most state park and state forest managed trails. A map showing all of Wayne National Forest's overnight trails can be purchased at any forest office or through their web site. Detailed maps and trail descriptions are also available on this site. Always have a compass handy in case you get turned around and need to orient your map to the north.

Not only are trail maps important navigation aids, they are also great planning tools. Based on typical terrain in Ohio hill country, a backpacker's moving speed will average between 2 – 2.5 miles per hour, not including time for breaks. Divide the overall distance to that day's destination (in miles), calculated by using the map's scale, by 2 if your pace is a little slow or 2.5 for a faster pace to determine the approximate time (in hours) it will take to arrive. Alternately, multiply your average hiking speed by how many hours in the day you desire to hike, and then consult a map for suitable campsites in the vicinity of your day's end location. Avoid getting caught by darkness or changing weather by employing either of these simple techniques to adjust your plans once you've arrived at the trailhead. Pad the results a bit to allow time for breaks.

Rarely on the trail will Global Positioning System (GPS) navigation be needed. Handheld GPS units can be fun for tracking stats like your moving speed, mileage hiked, elevation gained or for finding points of interest. GPS units can help you relocate water you've cached before a hike. If you have plans to explore areas away from camp or the main trail, then carrying a GPS is probably a good idea. Using the waypoint feature common to most GPS units, you can mark the start point of your bushwhack and continue to mark points along the way as desired. On the return trip, the GPS will guide you to the waypoints previously recorded. In Ohio's backcountry, where wooded ridges and hollows seem to repeat themselves, having a little handheld friend to guide you back to where you started can be a lifesaver. Many models allow you to pre-load maps, which enable you to visualize your route and position in relation to the surrounding environment.

## Method: Point-to-Point or Base Camping

The two methods discussed in this section don't apply to single overnight trips, which go something like this: you hike in the first day, set-up camp, pack it up in the morning and hike back out. Not much flexibility for options. However, when you plan a trip for two or more nights then you have the freedom to choose which you dislike the most, camping in the same spot more than once or lugging 30 lbs. of dead weight on your back each day. If you prefer a change in campsite scenery, then you'll prefer a point-to-point trip. Essentially, you will pack up camp each morning and set it up somewhere else along the trail that evening. This is true backpacking in the traditional sense. If your goal is to

maximize the amount of time not piggybacking the equivalent weight of a small child around, then base camping may be the method of choice. The basics here involve setting up camp once, hiking and exploring throughout the day and then returning nightly to the same camp. You can afford to pack a few extras since you'll be minimizing time strapped under your fully loaded pack. Don't forget to include a daypack for your daily jaunts. Be mindful of trail rules limiting the number of nights allowed at a single campsite, especially on state managed trails.

## **First Aid**

Basic first aid diagnosis, prevention and treatment skills are a must for any hiker hitting the trail in Ohio. The Ohio woods are home to biting insects and stinging plants. The trails can be tripping hazards, with jutting rocks and twisting roots hidden under plants or fallen leaves. Temperatures can be extremely hot or cold and weather conditions changeable. Improperly fitted footwear can cause painful blisters. It's just plain old common sense to say that no pack should leave the trailhead without a first aid kit. Kits specifically pre-assembled for campers and hikers are available from many brick and mortar and Internet outdoor retailers. If you choose to assemble your own first aid kit, the following minimum items should be included:

- Comprehensive first-aid manual
- Emergency blanket
- Tweezers
- Scissors
- Band-Aids
- Moleskin/2nd Skin
- Adhesive tape
- Adhesive bandages
- Elastic-wrap (Ace) bandage
- Gauze pads
- Safety gloves
- Antiseptic wipes
- Anti-bacterial ointment
- Aspirin or acetaminophen
- Antihistamine
- Antacid tablets
- Iodine
- Calamine lotion
- Personal prescription medication

More advanced training, including CPR, from organizations like the American Red Cross will provide skills to care for more serious injuries and sudden illness until medical personnel arrive. To locate your local American Red Cross, visit [www.redcross.org/where/where.html](http://www.redcross.org/where/where.html) and enter your Zip Code.

The following are strategies for diagnosis, prevention and treatment of ailments most common to hiking in Ohio's outdoors.

## **Insect Bites and Stings**

Most of us will only have to deal with mild itching, pain and swelling from the more common trail biters and stingers inhabiting our woods: mosquitoes, bees and biting flies (deer and black). For all bites and stings, clean the area first and apply a cold compress. A clean towel or washcloth dipped into a cold stream works in a pinch. For itchiness, apply calamine lotion, hydrocortisone cream, or even baking soda powder to ease the discomfort. Try to limit scratching, which can tear open the skin. Acetaminophen can be taken for pain. Bees leave a stinger in the skin that should be removed by scraping the sting area with your fingernail or a knife blade. Trying to grab the stinger with your fingers or tweezers can cause more venom to be released from the venom sac, causing additional pain and swelling. Prevention of bites includes applying Deet-based repellents to exposed skin.

Severe reactions to stings or bites on the trail can cause Anaphylaxis, a life-threatening condition. Anaphylactic symptoms include: difficulty breathing, swelling of lips or throat, faintness, confusion, rapid heartbeat, hives and nausea. If you have known sensitivity to bees or other biters and stingers, you should never leave the trailhead without epinephrine and an antihistamine like Benadryl. Epinephrine is the treatment for Anaphylaxis. A device called an EpiPen has become a popular portable epinephrine auto-injector for people on the go. It's about the size of a marker and slips easily into your pocket. A doctor's prescription is required to obtain one.

Ticks hang out in grassy and shrubby areas waiting to tag a ride on a potential warm-blooded “meal”. Ticks can carry diseases, such as Lyme disease, so conducting an overall tick check at the end of your hike should become routine, especially when hiking through their prime habitat. Ticks are most active during the months of May through September. Tick bites are typically painless, so you may not notice the presence of one until it has firmly attached itself to your skin. To remove a tick, use tweezers to carefully flip the tick over onto its back. Grasp the tick firmly with the tweezers—without crushing--as close to the skin as possible. Gently pull the tick until it comes free. Twisting or turning the tick does not make removal easier because the mouthparts are barbed, not spiraled. Thoroughly cleanse the bite area with soap and water or a mild disinfectant and observe the bite area for several days for development of a reaction or infection.

## Snakebites

The likelihood of being bitten by a snake on the trail is very slim. Keeping a keen eye focused on the areas you step, sit or reach will minimize your chances of an unpleasant encounter. Being able to identify Ohio's poisonous and non-poisonous snakes in the field will help you choose the course of action required in case of a bite. As discussed earlier, Ohio hill country is home to two poisonous snakes, the Northern copperhead and timber rattlesnake. A third, the Eastern massasauga, is not found in hill country. Bites inflicted by any one of the venomous trio can cause pain and illness but are rarely fatal. A number of old first aid snakebite treatments you may be familiar with have fallen out of favor and are no longer recommended by the medical community. These include cut and suck techniques, use of tourniquets and constricting bands and applying ice or alcohol to the bite area.



Revised recommendations for treatment call for little or no effort to remove or restrict the flow of venom as this can lead to tissue damage or infection, although use of negative-pressure suctioning devices—like the Sawyer



Extractor—have shown some benefit if used within several minutes of envenomation. If you are bitten, remain calm and immobilize the affected limb below the heart.

Loosely splint it if necessary. Any jewelry that could restrict blood flow as swelling occurs should be removed. Next, you will need to seek medical attention as soon as possible. If your only option is to walk out, do so in a calm manner, using the affected limb as little as possible. Don't walk back to your car if other points of contact with people are closer, like a house or road. If you are carrying a cell phone, check for service often and call for help at the moment a signal is detected. In a group, the victim should be kept still and not try to walk out. Other members of the group should seek

help while some stay behind to comfort and monitor the victim.

Non-poisonous snakebite wounds should be cleaned and disinfected the same as any other wounds. Any bleeding should be allowed to stop on its own unless severe. Apply antibiotic ointment and cover the wound with bandages. A tetanus shot will be needed, so see a physician.

## Blisters

Blisters are formed by friction on the skin. For hikers, the source of this friction usually comes from improperly fitted footwear or a pebble in the boot. Wet feet from sweat or water are susceptible to blisters as moisture softens the skin. Hiking boots should be properly broken in before an extended trek and wearing wool or synthetic socks (not cotton) will wick away moisture. Consider building in a friction layer by wearing a silk or polypro liners under hiking socks so that friction occurs between sock layers instead of against your skin.

Treat the area of a pre-blister “hot-spot” immediately to prevent a blister from forming. Take off your boots and socks and remove any sand or gravel from your feet. Let your feet dry and cool down and then apply medical tape, a band-aid, or moleskin over the hot area. Once a blister has formed, it should be drained and properly treated to avoid further irritation. Wash the area thoroughly, then with a sterilized needle, puncture along the base of the blister and massage out the fluid, keeping the outer skin intact to protect the tender skin underneath. Next apply antibiotic ointment to the area and affix a donut shaped piece of moleskin around the sore, centered on the deflated blister. Apply a second layer if needed to keep pressure off the sore and seal the whole site off with medical tape.

## Poison Ivy

As a child, if you spent any time at all in the out of doors, your parents probably warned you about poison ivy. It may be one of Ohio's most identifiable plants. Poison ivy grows as vines or shrubs with smooth or even notched leaves clustered in groups of three. The itchy rash that develops after touching poison ivy is actually an allergic reaction to

an oil, called urushiol, secreted by most parts of the plant. The rash usually develops within 24-72 hours of contact with the plant and starts as small red bumps and later develops into blisters. Only skin exposed to the plant's oil develops a rash; the rash does not spread by scratching or oozing blisters. If the hands are exposed to urushiol, touching other parts of the body can transfer the rash inducing oil.

Most cases of poison ivy can be self-treated with calamine lotion, and Benadryl to help reduce itching. Medical attention should be sought for severe or widespread breakouts on the body. Avoidance is the best measure of prevention. Learn how to identify poison in the field and watch where you walk and what you grab. Stay on established trails, and wear pants and long-sleeved shirts if bushwhacking is in your plans. If you come in contact with the plant, wash exposed skin thoroughly with soap and cool water. Hot water opens the pores and allows urushiol to penetrate. Consider packing an over-the-counter lotion—like IvyBlock--which absorbs urushiol before it contacts the skin.



## Sunburn

Here is where hiking in all those trees will serve some benefit—lots of dense foliage to block out the harmful sun. This may be true but there will be times when you are exposed to the sun, so precautions still need to be taken. To avoid sunburn, wear a sunscreen with an SPF of 30 or higher and perhaps wear or have at hand a wide-brimmed hat to protect your face and ears and sunglasses for eye protection. Consider wearing pants and a long-sleeved shirt if you burn easily. Many outdoors retailers sell SPF-rated hiking clothes designed for lightweight UV protection. If you do get sunburned, apply sunburn cream or aloe vera--containing no alcohol--to the affected areas and avoid further sun exposure. Take an over-the-counter painkiller if needed.

## Heat Injuries

Heat Injuries are the result of elevated body temperatures and excessive fluid loss during periods of exertion, like hiking, in hot conditions. In Ohio, the hot and muggy days of July and August pose the biggest risk, but heat injuries can occur during hot spells in other months as well. **Heat cramps** are the mildest form of heat injury and occur when sweating causes salt levels to drop during a period of being active. Symptoms include muscle cramps or spasms. To keep heat cramps from becoming a more serious heat injury, take a break, replace fluids and stretch the muscles.

**Heat exhaustion** is more serious and occurs when fluid loss through sweating and respiration exceeds your internal fluid reserves. Essentially, there is not enough coolant to cool the engines. Symptoms include sweating; cramps; pale, clammy skin; fatigue; headache and dizziness. Start your treatment by resting in a shaded, cool location and slowly drinking water or a sports drink containing electrolytes. If feelings of dizziness or faintness persist, lie down and elevate your legs and feet slightly. Splashing or sponging yourself with cool water from a nearby stream can quicken the cooling process.

The onslaught of **heat stroke** occurs when the body's heat-regulating system starts to fail. Heat stroke is a life threatening condition requiring immediate medical attention. Symptoms include hot, dry and flushed skin; elevated body temperature; rapid heartbeat; disorientation, confusion or even seizures. In the field, remove clothing and begin dampening of the body with cool, wet towels until medical help arrives. Fluid replacement should begin as well.

Prevention of heat injuries relies on staying properly hydrated. Drink before you feel thirsty and take plenty of breaks. Sports drinks replace important minerals and salt lost during excessive sweating and should be included in your daily fluid intake. Stay away from alcohol or sugary drinks when hiking in hot weather—these actually cause you to lose more fluids. Wear lightweight breathable synthetic clothing.

## Cold Injuries

Cold injuries should not be mistaken for injuries sustained only when the mercury dips below 32 degrees. In fact, hypothermia can occur in conditions much above freezing. If you are halfway through a trip and caught unprepared for colder, wetter and windy weather, you are putting yourself in position to enter a hypothermic state. **Hypothermia** is defined as an internal body temperature less than 95 degrees Fahrenheit. Initial symptoms include shivering, loss of coordination, confusion and a rapid heart rate. As hypothermia progresses and internal body temperatures continue to drop, shivering stops, confusion and delirium advance and heart rates slow. Survivors of advanced hypothermia report losing all sense of reason and logical decision-making. Many have even reported the feeling of warmth returning.

Treating hypothermia begins with getting yourself or the victim to a warm shelter or tent, protected from the wind. Any wet clothes should be replaced and the victim wrapped in blankets or a sleeping bag. Re-warming should occur with attention made to the trunk. Warm water bottles or heat packs should be applied to the neck, armpits, groin and the abdomen. If these are not available, consider skin-to-skin contact as an option. Drink warm fluids to stay hydrated. Any person who has been active outdoors in the winter season has felt the sting of freezing air on exposed skin. Prolonged exposure to these conditions can lead to **frostbite**. Frostbite does not always occur with hypothermia or mean that hypothermia is imminent. Frostbite is a condition where ice crystals actually form in the cells of our tissue as a result of reduced blood flow through constricted blood vessels.

Mild frostbite symptoms include burning or throbbing pain. Skin may be red, white or gray in color but remains soft and resilient. If you press against the tissue, the skin indentation springs back. If frostbite is allowed to progress, the skin tissue will lose sensation and may feel cold and solid. Skin will lose resiliency and start to appear pale, blue-tinged and waxy. Small blisters containing clear or bloody fluid are likely to form. At the blister forming stage of frostbite you will need to seek medical attention. More advanced frostbite results in tissue death and full thickness freezing involving muscle tissue and bone.

Basic treatment of frostbite is similar to treatment of hypothermia. First, you or the victim must be taken out of the cold to a warm shelter or tent. Change out of any wet or damp clothing. Warm your hands by tucking them under your arms or burying them in the groin area. If your nose, ears or face is frostbitten, warm the area by covering it with dry, gloved hands. Cold feet should be wrapped in a sleeping bag with dry socks on. Never rub or massage frostbitten areas. Warm, not hot, water bottles pressed on the skin can provide spot warming for mild cases of frostbite. Never use an open flame to treat frostbite. Campfires are okay for warming up when chilled but not recommended for thawing frozen skin, as this can lead to burns.

Common sense prevention is the best defense against cold weather injuries. For cold weather hiking, always pack a little extra for sake of preparedness. Any cold weather injury is not worth the pound or two of pack weight saved by packing conservatively. Dressing should be in lightweight, non-bulky layers. Layers allow you to add and remove clothing as daily temperatures and your level of exertion fluctuate throughout the day. It is also important to stay dry as wet or damp skin and clothing accelerate chilling. Start with a wicking layer to transport sweat and moisture away from your skin. Next, put on an insulating layer of fleece or wool followed by a wind/rain repellent outer shell. Whatever you do, stay away from cotton. One rule to remember when dressing for a winter trip is that dead space is insulating space. This means airspace between layers and around feet and hands provides insulation, warmth and draws moisture away from the skin. Wearing tight clothing or cramming feet with thick winter socks into undersized boots will only cause you to become colder more quickly. Always carry extra socks in case your feet get wet. A hat is a must for retaining body heat.

As with heat injuries, adequate nutrition and hydration protect the body against cold weather injuries. You can lose fluids though sweating in sub-freezing temperatures while not realizing it. Limiting or eliminating alcohol and tobacco use during a winter trip will help keep your core body temperature up. Use of pocket heaters or foot warmers is advised. These air-activated, dry chemical bags provide heat for hours and are inexpensive and easy to find.

## **Bone and Joint Injuries**

Every hiker will trip, stumble or fall at some point in time on the trail. With any luck you'll walk away uninjured or mildly sprained. If it's not your lucky day, then you'll likely suffer a trip ending dislocation or bone fracture. **Sprains** are a result of an accidentally overstretched ligament. **Strains** are injury to muscles or tendons. The signs and symptoms for sprains or strains include pain, swelling, tenderness and possibly black and blue discoloration. For treatment think RICE, but not the kind you eat. R—Rest. I—Ice (if available) or cold compresses the first day for 20 minutes every 3-4 hours. C—Compression with an Ace bandage to stabilize. E—Elevate the affected area. For ankle sprains, don't compromise circulation by forcing boots on over a swollen foot. Seek medical attention when an affected joint or limb becomes numb, cannot be moved, looks disfigured or buckles under normal use.

A **dislocation** occurs when two bones become separated at the joint. Dislocations can be very painful and the possibility exists for injury to tissue and blood vessels around the separation. A **fracture** is a break in the bone. Several types exist, but fractures resulting in bone penetration through the skin (called a compound fracture) are more dangerous. Tenderness, swelling, deformity and discoloration occur with both fractures and dislocations. If nerves are affected, sensation may be lost below the dislocated area. Bleeding can occur with compound fractures.

Treatment for fracture and dislocations begins with applying a cold pack to the injured area to decrease pain and swelling. The injured area needs to be immobilized with a splint made from any available material, like sticks or trekking poles, to reduce the risk of further injury. Pain relievers should be taken for pain management. Open wounds associated with compound fractures should be flushed with clean, fresh water and covered with dry dressing.

Although there is some support by wilderness medicine practitioners for immediate bone reduction (setting into place) of dislocated bones, unless you have had medical training, you may not know the severity of the dislocation and could cause additional trauma to the bones, joints or surrounding tissue and nerves. It wise to err on the side of caution here, immobilize the dislocation and then work on a plan for evacuation. Remember, you are in Ohio, so medical help is likely just hours away, and not days.

## **Hazards**

Taking up temporary residency in the woods means you have no choice but to deal with what Mother Nature throws at you. Don't assume outdoor hazards are any less of a threat here in heavily populated, mountain-free Ohio—they're not. Lightning, for example, is just as deadly here as any other point on the map.

### **Thunderstorms**

Thunderstorms can occur during any month in the Buckeye State, although frequency is greatest in the spring and summer months. Thunderstorms produce dangerous lightning and can trigger flash flooding. Lightning is one of the biggest safety concerns for hikers and backpackers due to the lack of solid structures to shelter in. Lightning can strike from a storm several miles away and thunder is the tell-tell sign of a lightning producer in the area. Pop-up storms during Ohio's summer dog days (July and August) are a daily threat and produce especially vivid lightning, so be prepared even if storms are not forecasted. When selecting a campsite if storms are imminent, try to stay off ridgetops and choose a site located in uniform, lower-height trees. Remember, you're in Ohio; you can't avoid camping in trees.

Unless you are directly under a rapidly developing thunderhead, you will have some warning to an approaching storm. This will give you time to seek the safest conditions for riding it out. If you are able to return to camp, enter your tent and assume a crouched position on your sleeping pad. Do not stay in contact with the tent's metal poles or other metal objects. If you're caught away from camp, head for a ravine or other low spot. Take cover in low trees or shrubs, as far away from the trunks of tall trees as possible, and assume a crouched position. Do not seek shelter in rock overhangs; lightning can arc the gap. Other avoidance areas include open spaces and lone large trees. Members of a group should separate and put a minimum distance of 30' feet between them.

The same storm responsible for your temporary hypertension can also produce flash flooding. Flash floods are also triggered by storms many miles away from where you may be. Common sense should tell you not to enter or attempt to cross a swollen stream. Flash floods usually subside quickly, so be patient. Only a few inches of raging torrent is needed to knock you off your feet and shatter your ego. When selecting a campsite, keep in mind those small innocent looking streams and rivulets funnel water from surrounding hills and can quickly become raging currents.

### **Wild Animals**

Nothing can send your heart racing like being jolted from sleep in the middle of a tent, in the middle of the night, in the middle nowhere by the sounds of crunching leaves and snapping twigs just on the other side of your not-so-protective fabric tent wall. In your groggy state of mind, you'll be within the clutches of a hungry bear or at the mercy of some horrible beast within seconds. Fortunately, the hungry bear or horrible beast is usually nothing more than a deer, raccoon or even a measly little mouse just checking out the new neighbor, hoping to score big on a dropped peanut or piece of chocolate.

Ohio's resident mammals aren't so much a hazard as they are a nuisance if you attract them to your campsite by careless practices. Don't store food in your tent or pack; critters don't mind chewing through either. The best practice is to hang your food from a strong branch or rope stretched between two trees. Make sure your food bag is at least 10 feet off the ground and 4 feet from the trunk of a tree, and away from your tent. This will cover you in case a wayward bear passes by. Don't cook or eat where you sleep; keep your kitchen and dining room at least 100 feet from your bedroom. Anything aromatic—ointment, toothpaste, sunscreen, bug spray, lotions—should be stored overnight along with your food.

On the trail, Ohio's wildlife will most always flee in the opposite direction at first sight of you. Rabies can cause wildlife to act differently, even causing them to lose fear of humans, but the chances of such an encounter are extremely small. Starting in mid-October, whitetail deer enter rutting season, a feverish time for bucks as they seek a mate. Their behavior can be unpredictable, but you are more at risk hitting one on the drive to the trailhead than having a negative encounter on the trail.

As mentioned earlier, black bears are again official Ohio residents. They are breeding in the state and their numbers are steadily increasing. If their numbers continue to rise it is inevitable encounters with humans will rise as well. In

2005, BackpackOhio.com's webmaster spotted several piles of bear scat along a one-mile stretch of trail in Shawnee State Forest, but to date, no actual bears. Learning to identify bear tracks and scat in the field may help you avoid a sudden, albeit rare, encounter. Dawn and dusk are the most active times of the day for bears. If you encounter a bear on the trail, be calm and do not run, which may elicit a chase. Warn the bear you are there. Talk in a firm, but calm voice and avoid direct eye contact. Wave your hands over your head to appear larger. Allow room for the bear to escape. If the bear refuses to leave or draws closer, yell and clap your hands. Dropping your pack as you continue to back away may divert the bear's attention from you, especially if it's food the bear seeks. If the bear attacks, fight back with all resources available. During an encounter a bear may stand upright, this is not a sign of aggression, it is merely trying to get a better whiff of you. Bears have been known to false charge as a means to intimidate. Avoid getting between a mother bear and her cubs.

## **Getting Lost**

The key to not getting lost is good navigation skills, as discussed in the section on navigation earlier, good navigation in Ohio typically only requires keeping an eye out for the next trail marker. However, there may be times when you miss a marker or hit a section of poorly marked trail and end up on an unofficial trail or game trail. At the point of realization, turn around and walk back to the last known trail marker, consult your trail map and pick up the official route from there, no matter how much backtracking is involved. By no means should you attempt a bushwhack to eliminate the backtrack. You'll end up wasting much more time when you find out the trail is not where you thought--that's if you get off easy.

If you find yourself inexplicably lost, congratulate yourself; you have managed to find a crease in the land fabric of a state with 11 million people and over 115,000 miles of roadways. Actually, you won't be the first, so no need to feel foolish. Getting lost tops the list of emergency calls received by forest rangers in Ohio. When the feeling of being lost finally hits you, stay calm. Panic leads to irrational decisions. If you are in a group, don't split up, you'll be safer and easier to find. Avoid walking strictly ridgetops, which can go on for miles in a winding fashion, instead, head for the hollows. Pick a stream and follow it in the direction of flow. If that stream joins another, follow it downstream, and so on. In the dendritic drainage pattern of Ohio hill country, this is a proven escape method and will always lead you to a road within a few miles at most. Keep in mind that you will be bushwhacking your way out of being lost, so be extremely cautious and take your time. An immobilizing injury is not something you'll want to sustain.

## **Ethics and Good Practices**

Your goals for any hike, aside from enjoyment, should include leaving as little impact as possible on the trail, at camp and on the surrounding natural environment. Leave these areas in a condition you would hope to find them. You may already be familiar with the phrase "Leave No Trace", which is a set of guiding principles designed to reduce impact on the natural environment. Today, LNT principles are managed by the non-profit organization Leave No Trace Center for Outdoor Ethics. This organization is dedicated to promoting responsible outdoor recreation through education, research and partnerships. More information about the Center and LNT practices can be found on the Internet at [www.lnt.org](http://www.lnt.org). Many of their guidelines are incorporated into the following text in this section.

## **On the Trail**

Stay on established trails to avoid degradation to the surrounding environment and possible erosion. Don't cut switchbacks for the sake of saving a few steps. In Ohio, you'll encounter eroded sections of trail—mainly on hills--due to poor design (no switchbacks). Continue to use these sections unless closed by trail managers. Bypassing them will encourage others to do the same, resulting in the spread of habitat destruction and erosion. When roaming off-trail, not recommended but allowed in state forests and Wayne National Forest, minimize impact by choosing a path through less dense plant growth on the forest floor. Individuals in a group should spread out to avoid creating a path. When encountering another hiker on a trail, it is common courtesy for the downhill hiker to yield to an uphill hiker. It's a little tougher to regain rhythm on the uphill.

## **Pets**

We're mainly talking dogs here. We're yet to meet another backpacker on the trail with their cat in tow. Most of your responsibilities as a pet owner apply in the woods just as they do in town. Your dog should always be leashed on the trail and tethered at camp, never running around unrestrained. The sight of an animal, another hiker or another dog can send your dog into "protection" mode, or cause other behaviors you may not have noticed in your home environment. Excessive barking is another no-no. Not only is it distracting, but it can scare wildlife and any human within earshot, especially in camp at three o'clock in the morning. Posted campground quiet hours apply to your dog

as well. The products of your dog's bowel function should be buried in a six-inch hole away from the trail. We'll get to yours soon.

## **Selecting a Campsite**

Since Ohio's state managed trails require you to camp in designated backcountry camping areas, this section really only pertains to trails in Wayne National Forest. In the Wayne, primitive camping is allowed just about anywhere. However, in an effort to minimize your impact, try to pitch camp in areas already established by those before you. If you must camp at a different location, choose a site offering the least amount of impact. Select a site that's flat or slightly sloped for drainage in case of rain, and as naturally clear as possible. Trampling delicate vegetation or breaking tree limbs and saplings to make room for your tent will not win you any conservation awards. Stay at least 200 feet from streams, lakes, meadows and other sensitive areas. It's a good idea to first search the candidate site for poison ivy, thorny plants and insect colonies. Be sure to check what is above you as well. You don't want a dead branch crashing down on you if winds increase.

## **Campfires**

Campfire rules are very similar to camping rules: only allowed in designated fire rings along state managed trails and allowed just about anywhere in Wayne National Forest, with the exception being rock shelters. No special permits are needed at the state or federal level. Minimizing impact means using established fire rings when possible, and remember, fire rings are for wood, not trash. Keep fires small and only use sticks from the ground that can be broken by hand. If you build a primitive campfire, make a ring with rocks. Burn all wood completely to ash and then scatter cool ashes. Scatter the rocks used to make the fire ring as well. Never leave a fire unattended. Ohio has two primary fire seasons: early spring and fall, although fire risks can be elevated during dry weather throughout the year. Be especially cautious with fires during these times, or better yet, eliminate them altogether. Fire bans are occasionally implemented in Wayne National Forest during peak fire threats. On average, hill country fires claim 4500 acres of grassland and forest a year.

## **Sanitation**

At home, you're free to be the biggest slob anyone close to you will allow. But when you visit Ohio's forests, you'd better clean your act up—literally. Packing out what you packed in is one of the fundamental principles to the Leave No Trace campaign. Not only is litter unsightly, it can alter a wild animal's natural feeding instinct and cause it to become a problem at camping areas. Pack a gallon size heavy-duty freezer bag for your trash. Human waste should be deposited in an inconspicuous cathole dug 6 to 8 inches deep and at least 200 feet from water, camp and trails. Toilet paper and hygiene products should be packed out. Small amounts of biodegradable soap are safe to use for small camp clean-ups, including yourself, but only away from water. Disposable wipes are better option for your own hygiene needs. Leave a clean camp for the next fellow backpacker.

***HAVE FUN!***