

APRIL

10 Essentials, Trekking Poles, Hiking Techniques, Footwear, Backpack and Clothing

The point of the Ten Essentials list – developed by The Mountaineers has always been to help answer two basic questions:

1. Can you respond positively to an accident or emergency?
2. Can you safely spend a night—or more—out if you had to?

Ten Essentials can be memorized by “**FINISH FERN**”

1. **F**irst Aid Supplies
2. **I**nsulation (extra clothing)
3. **N**avigation (compass, map, GPS)
4. **I**llumination (headlamp, flashlight)
5. **S**un Protection (sunglass, sunscreen, Chapstick, & hat)
6. **H**ydration (water, extra water, electrolytes)
7. **F**ire (waterproof match, candle & fire starter)
8. **E**mergency Shelter (tarp, Mylar blanket)
9. **R**epair Kit and Tools (knife, duct tape & cable ties)
10. **N**utrition (extra food=energy bar, jerky, nuts)

Few additional items to Ten essentials make your adventure more enjoyable are: Bug Spray, Rain gears, Trekking poles, Gloves & mittens, Gaiters, Sit-pad, Bandanna, Mask, or face covering for COVID-19.

Trekking Poles: Using trekking poles enhances stability and balance – poles can take some weight off the lower body and help redistribute the load to your arms and upper body reducing the strain on your joints, especially when going downhill. When hiking uphill it is better to keep the pole short enough not to pull yourself up the hill but to help push off. The tip of the pole should not be in front of the lead foot, rather keep the poles close to the body. For downhill sections you can lengthen each pole by 2-5 inches to keep your body more upright for better balance.

Hiking Techniques:

Rest Step: On steep slopes, in snow and high altitudes, the rest step help you controls your pace and reduce fatigue. The rest step will allow you to continue hiking instead of frequent stops to rest. The technique is to end every step with moments of complete stop, giving your leg muscle to rest. It is simple but need to practice it.

1. Swing one foot forward for the next step. Stand upright and exhale while letting your rear leg support your entire body weight.
2. Straighten your rear leg so that you are supported by bone, not muscle.
3. Now, completely relax and soften the muscles of your forward leg, especially the thigh. This brief and momentary rest refreshes muscle. The take a breath and swing your rear foot forward for the next step.

Downhill: When you walk downhill, your body & pack weight drops on your legs, knees, and feet. Toes jam forward. Jolts travel up your spine and jar your entire body. To avoid host of injuries -

listers, knee cartilage damage, sore toes, blacken toenails, headaches and back pains-just by using few of the following tricks:

- Tighten your boot laces - especially upper part of the boots – to reduce movement inside the boots and avoid jamming toes.
- Bend the knees with each step to cushion the shock.
- Place each foot lightly as if it were already sore.
- Use trekking poles to reduce load on the knees and to provide additional stability.
- Maintain measured pace that is slower than the one urged by gravity.
- Take shorter steps.

Footwear, Backpack and Clothing

Hiking boots/shoes: What type of boots/shoes will fit me the best for hiking?

- **Types:** You have a great deal of choices, from ultralight trail shoes to mountaineering boots.
- **Components:** Understanding a little more about what are the components of boots (uppers, lowers, midsoles, outsoles, and other parts of a boot) can help you refine your selection.
- **Fit:** No one enjoys ill-fitting boots and no matter the boots design or materials are, the **Fit** is critical! Highly recommend that taking the time to get a great fit will lead to enjoyable hiking vs miserable on the trail. Try at store & try at home. Do not be afraid to take'em back may time as you need!

Backpack: How to choose & how do I know the backpack is fitting me?

- **Backpack capacity:** The size of the pack you will need is tied to the length of your trip and how much weight and bulk you want/need to carry. Most of us carry around 8-15 Lbs. for day hike and depends on the season (In the winter, we carry slightly more).
- **Backpack features:** These are the refinements that affect how the pack works for you.
- **Backpack fit:** Torso length, not your height, matters most.

Clothing: What to wear and what not to wear

- **Cotton kills:** Cotton retains water, so it keeps you feeling wet in hot temps and chill you! No cotton clothes ever, please!!
- **Polyester, nylon, or merino wool base layers:** These materials move sweat off skin and dry fast, so they are ideal for next-to-skin layers such as undies, tees, sports bras, or long underwear, and for socks.
- **Comfortable and sturdy pants:** Hiking requires body to move freely though hiking movements. Variety of hiking pants are available in outdoor retail stores.
- **Warm jacket:** Polyester fleece works great for this, though a puffy jacket (with a polyester fill or water-resistant down inside), is smart for colder conditions.
- **Rain jacket:** "Waterproof/breathable" is the key phrase, meaning it will block rain and wind, but will also let you sweat without feeling like you are wearing a plastic bag. In seriously soggy weather, pack rain pants, and rain hat too.
- **Brimmed hat:** Keeps your head dry and protected from the sun. The brim helps keep rain and sun out of your eyes. (Bring sunglasses, too.)
- **Layering:** Layering makes it easier to adapt to fluctuating temperatures and conditions in the mountain. The very basic outdoor clothing system consists of three layers: a layer next to the skin, insulating layers and an outer shell layer.

MAY

Hydration (Dehydration), Nutrition (food & extra food), & Sun protection

Hydration (Water): Carry sufficient water and means to obtaining and purifying additional water as needed. Know your water intakes/needs & plan accordingly. For most people for day hike, 1.5 to 3 quarts of water is enough. Take more than you think you need.

For purifying water, carry Chlorine dioxide tablet, filter bottles like Sawyers for extra water.

Know where & how to find water source (Have a map indicating water sources nearby & catching the drips from overhanging eaves of melting snow)

Dehydration occurs when you use or lose more fluid than you take in. Dehydration cause fatigue, disorientation, and headaches. Dehydration will debilitate you quickly than you might expect. Do not wait till you are thirsty to drink. Thirst is a sign that dehydration is in progress. A Good indication of adequate hydration is lightly colored/no colored urine.

Use of electrolytes (Gatorade, Nunn & other sports drink) in your water for replenishing salt & other minerals especially in hot summer day or exhausting hiking up the top of mountain. Try out those electrolytes mixed drinks at home before you rely on them on the mountain. Not everyone tolerates them well.

Nutrition (Food & Extra food): For day trips, sandwiches, fresh fruits & vegetables are the staple. For emergency food, one day supply of extra food is considered good for day hike. The emergency food should require no cooking and lasts for long period of time. Example: jerky, nuts, candy, granola, and dried fruit usually works.

Sun Protection (hat, sunscreen, chapstick & Sunglasses): To prevent sun burn, cover the exposed skin with sunscreen with least SPF 15, chapstick, clothing with UPF rating, wide brim hat and sunglasses to protect your eyes.

Sunscreen rating and UV blocking percentage:

- SPF 15 blocks 93% of UVB rays (minimum rating dermatologist recommends)
- SPF 30 blocks 97% of UVB rays
- SPF 50 blocks 98% of UVB rays (SPF rating over 50 is known to be meaningless and expensive)

Sunburn is like any other burn - Cool the burned area, cover it with sterile dressing to minimize risk of infection & drink plenty of fluids. Repeated sunburn causes skin cancer.

JUNE

First-Aid, Navigation ("Staying Found")

First Aid kit: Carry the First Aid Kit and know how to use the items in it. First aid kit should be compact, sturdy and in a waterproof bag. The first Aid Kit should contain Gauze pad in various size, roller gauze, small adhesive bandages, butterfly bandages, triangular bandages, battle dressing, adhesive tape, scissors, cleansers or soap, latex gloves, pepper & pencil. These items are usually included in commercially packed kits that you can buy in outdoor stores. The important things to remember are to be safe in your footings, take steps to avoid injury or sickness.

Navigation (Staying found): The hikers must carry the tools to navigate and possess the skill required to know where they are and how to get to destination and back safely. Always carry detailed **topographic MAP** of the area you are hiking and wrap it with waterproof coverings along with **COMPASS**. As technology develops, navigation tools like **GPS** (Global Positioning System) are very helpful in finding routes. Learn how to use maps, compass, and GPS. All Mountaineers members are eligible to receive a free Gaia GPS subscription the first year. At the end of the day, our goal is to get back home safely!

If you are lost, **whistle** can be simple, but reliable signaling device.

International Whistle Code

One Whistle Blast = Where Are You?

Two Whistle Blasts = I am here & Ok

Three Whistle Blasts = Help!

Each whistle blast should last close to 3 seconds.

Other useful tools are: Leave trip itinerary with responsible person and entertain the idea to carry Satellite communication device like inReach, SPOT, ZOLEO or satellite phone.

A sample of itinerary to leave with a responsible person.

Date:

Trail name and turn around point:

Who am I hiking with?

My car will be parked at:

I am riding with:

If first hike does not work out, my alternative hike would be:

Ranger station contact for this hiking area:

I am expecting to be back at home by:

JULY

Illumination, Insulation (Hypothermia), Fire, and Repair Kit & Tools

Illumination: In day hiking scenario, most hikers plan to return before dark, but it is necessary to carry a headlamp or flashlight for unplanned events & emergencies. Carrying extra batteries is a must and to check periodically to make sure the lights and batteries works.

Insulation (extra clothing): The reason for the extra clothing is to survive long, cold, & unplanned emergencies on the mountain. An extra layer of long underwear can add much warmth while adding little weight to the pack. Pack an extra hat or balaclava, extra pair of heavy socks and fleece mitts would be life savior in emergency situations. Extra clothing should be selected according to the season. For those who perspires lot in uphill hiking, would greatly benefit from carrying change of clothes at the top as this is a way to avoid getting into hypothermic situation.

Hypothermia: Hypothermia occurs when the body's core temperature drops to 95 F or less. Hypothermia is when blood is diverted away from the skin surface and from extremities in an attempt to preserve the core temperature. Hypothermia occurs after prolonged exposure to chilly environs rather than exposure to extreme cold. (The typical NW weather in shoulder season: A drizzly day with temp. around 50°F and strong breeze is a more typical setting for hypothermia than a minus 30°F cold snap). Hypothermia is more likely to occur with dehydration, inadequate nutritional intake and fatigue. Wet clothing and wind greatly increase the risk of hypothermia. Hypothermia symptoms vary, but usually start with intense shivering, fumbling hand movements, stumbling, dulled mental functions and uncooperative/combatative or isolative behavior. When someone is suffering from hypothermia, get him/her out of wind & wet clothing. Have her/him change to dry clothes and add insulation. And later provide him/her with warm liquid & sugary food.

Fire: Hiker must carry the means to start and sustain an emergency fire. Most hikers carry a lighter or fire starter or storm proof matches in waterproof container. All these fire starters must be **reliable**. Fire starters are indispensable for igniting wet wood quickly to make emergency fire. Common fire starters include candles, chemical heat tabs (solid fuel in tablet form: Esbit solid fuel tablet) and canned Heat (like STERNO). Some seasoned hikers carry lint balls from clothes drier as fire starter in wet conditions.

Repair kit & tools: One item that every hike should carry is a knife. A Knife is useful in first aid, food prep, repairs. Other repair kit items are safety pins, needle and thread, duct tape, cable ties, some sort of cordage, replacement parts for what you carry/wear on your hike.

AUGUST

Emergency shelter, Leave No Trace Practice

Emergency shelter: There are few different things can be used for emergency shelter. Generally, in day hiking situations hikers carry an “Emergency Bivy” that you purchase at outdoor stores. The emergency Bivy is made with wind proof, waterproof material that is made to keep your body hearts within the bag. Most notably this emergency bivy is light in weight. Hikers also can use large plastic garbage bag, thermal blanket, or tarp.

The seven principles of Leave-No-Trace outdoor ethics

1. Plan Ahead and Prepare:

- Know the regulations and special concerns for the area you will visit.
- Prepare for extreme weather, hazards, and emergencies.
- Schedule your trip to avoid times of high use.
- Visit in small groups. Split larger parties into groups of 4-6.
- Repackage food to minimize waste.
- Use a map and compass to eliminate the use of marking paint, rock cairns or flagging.

2. Travel and Camp on Durable Surfaces:

- Durable surfaces include established trails and campsites, rock, gravel, dry grasses, or snow.
- Protect riparian areas by camping at least 200 feet from lakes and streams.
- Good campsites are found, not made. Altering a site is not necessary.

In popular areas:

- Concentrate use on existing trails and campsites.
- Walk single file in the middle of the trail, even when wet or muddy.
- Keep campsites small. Focus activity in areas where vegetation is absent.

In pristine areas:

- Disperse use to prevent the creation of campsites and trails.
- Avoid places where impacts are just beginning.

3. Dispose of Waste Properly

- Pack it in, pack it out. Inspect your campsite and rest areas for trash or spilled foods. Pack out all trash, leftover food, and litter.
- Deposit solid human waste in catholes dug 6 to 8 inches deep at least 200 feet from water, camp, and trails. Cover and disguise the cathole when finished.
- Pack out toilet paper and hygiene products.
- To wash yourself or your dishes, carry water 200 feet away from streams or lakes and use small amounts of biodegradable soap. Scatter strained dishwater.

4. Leave What You Find

- Preserve the past: examine, but do not touch, cultural or historic structures and artifacts.
- Leave rocks, plants, and other natural objects as you find them.
- Avoid introducing or transporting non-native species.
- Do not build structures, furniture, or dig trenches.

5. Minimize Campfire Impacts

- Campfires can cause lasting impacts to the backcountry. Use a lightweight stove for cooking and enjoy a candle lantern for light.
- Where fires are permitted, use established fire rings, fire pans, or mound fires.
- Keep fires small. Only use sticks from the ground that can be broken by hand.
- Burn all wood and coals to ash, put out campfires completely, then scatter cool ashes.

6. Respect Wildlife

- Observe wildlife from a distance. Do not follow or approach them.
- Never feed animals. Feeding wildlife damages their health, alters natural behaviors, and exposes them to predators and other dangers.
- Protect wildlife and your food by storing rations and trash securely.
- Control pets at all times or leave them at home.
- Avoid wildlife during sensitive times: mating, nesting, raising young, or winter.

7. Be Considerate of Other Visitors

- Respect other visitors and protect the quality of their experience.
- Be courteous. Yield to other users on the trail.
- Step to the downhill side of the trail when encountering pack stock.
- Take breaks and camp away from trails and other visitors.
- Let nature's sounds prevail. Avoid loud voices and noises.

SEPTEMBER:

Next Steps...

Are you interesting in being an Assistant Leader or Hike Leader for CHS Next year?

We are always looking for people with goals of becoming Hike Leaders to assist with CHS.

Assistant Leaders act as a 2nd Leader on a trip with a Hike Leader. These are people with an interest in taking the first steps and learning more about what it's like to be a Hike Leader.

Let your Mentor know you would like more info on becoming an Assistant Leader or Hike Leader for CHS.

Tacoma Hike Leader Resources

<https://www.mountaineers.org/locations-lodges/tacoma-branch/committees/tacoma-hiking-backpacking-committee/hike-leader-resources>

Steps to Becoming a Hike Leader

1. Attend a New Hike Leader Seminar.
2. Submit Hike Leader Application online.
3. Committee leadership will contact you for the next steps.
4. Required courses:
 - a. WFA, MOFA or Trail Emergency Preparedness*
 - b. Navigation or Staying Found
5. Successfully lead a mentored hike.
6. Receive final committee approval.

We request that you go on at least 3 Mountaineers hikes prior to mentored hike. *WFA or MOFA must be taken within first year of Hike Leader certification. Trail Emergency Preparedness is a condensed course to get you going with basic knowledge while awaiting WFA or MOFA certification.

Resources

MOUNTAINEERING, the Freedom of the Hills 8TH Edition

REI Website www.rei.com

The Mountaineers Website www.mountaineers.org