

In the 1930s, the Mountaineers, a Seattle-based hiking, climbing, and conservation organization, came up with a list of 10 essential items that no climber should be without.

**The most important essential**, however, is not on the list -- "**Common Sense**".

Having the right gear is one thing, knowing how and when to use it is quite another. Most often, it's not a person's equipment that saves their bacon. It's their experience, know-how, and good judgment.

Conversely, it is generally inexperience and lack of good judgment that gets people into trouble. Not only must we have the proper equipment -- including the ten essentials plus four -- and know how to use them, but we must also cultivate knowledge and wisdom related to the backcountry activities that we engage in--thru self-study, courses, and leveraging off the experiences of others.

▶ **Map** - A map not only tells you where you are and how far you have to go, it can help you find campsites, water, and an emergency exit route in case of an accident.

For short day hikes, perusing a map prior to the hike to refresh your memory of the trail and bearings may be all that is necessary.

For longer trips, a physical map, perhaps with the route marked with HighLighter pen and notes of landmarks, etc. is more prudent to carry. Still, you should review the map to refresh your memory BEFORE you go on the trip. A USGS topological map is the most useful, with waterways, contour line and latitude-longitude marks. Keep this map in a Ziploc bag with the highlighted route. If you are using a GPS, then get maps with UTM marks and learn how to use them. Also pre-load the trailhead, destination and major waypoint coordinates into a route on the device. Using a GPS does not mean you do not need to bring the map. Electronics fail, batteries die, etc. Maps provide a backup.

▶ **Compass** - A compass can help you find your way through unfamiliar terrain—especially in bad weather where you can't see the landmarks. Make sure you have a compass that has a bezel that can be rotated past some index mark.

▶ **Water and a way to purify it** - Without enough water, your body's muscles and organs simply can't perform as well: You'll be susceptible to hypothermia and altitude sickness, not to mention the abject misery of raging thirst. Either a pump or water purification tablets will work. Make sure that you have enough water bottles to carry a minimum of 1.5 liters. If you are hiking in the winter, you will need a stove and pot to melt snow for water.

▶ **Extra Food** - Any number of things could keep you out longer than expected: a lengthy detour, getting lost, an injury, difficult terrain. A few ounces of extra food will help keep up energy and morale.

For emergency purposes, two Snickers bars in a Ziploc bag or a bag of GORP tucked into a corner of the pack is not a bad idea. One hiker carries a small package of dry dog biscuits on the assumption that he would never be tempted to eat it except in an extreme emergency.

► **Rain Gear and extra clothing.** Because the weatherman is not always right. Especially above treeline, bring along extra layers. Two rules: Avoid cotton (it keeps moisture close to your skin), and always carry a hat or wool cap. The large 33 gallon trash bags work well for rain gear and other uses (for emergency pack cover, ground sheet, clothing storage, etc.) in addition to being lightweight.

However, you might consider certain items of sufficient utility to carry at all times.

Watch cap: of Wool or Polyester knit. Always welcome when it gets chilly. Heat loss of up to 30 percent occurs from the uncovered head.

Lightweight long underwear: Long sleeve top and bottom of synthetic fabric. Provides insulation next to the body in case of hypothermia.

Thin windproof anorak or jacket. For outer protection. You can even stuff dry leaves, etc between the jacket and your inner layer for additional insulation.

There is a stretch polyester knit tube about 12-18 inches long called a "turtle neck" or "neck tube" that can be used as a neck gaiter, neck-to-head hood, head band or, twisted and doubled, as a watch cap. Many hikers carry in their Ten Essentials Kit, a neck tube, and optionally, a set of lightweight long underwear. Also, on occasion, they will also include a shell jacket and / or a down vest.

► **Firestarter and matches** - The warmth of a fire and a hot drink can help prevent an encounter with hypothermia. And fires are a great way to signal for help if you get lost.

To create a fire, you need properly stacked fuel (ex: kindling) and a flame. The problem is how to get the flame to ignite the wood.

On a windy or rainy day, coaxing a small flame to ignite even a twig can be a chore. A match flame only lasts for so many seconds. By lighting a fire starter that will maintain the flame under the kindling, you increase your success rate enormously.

There are countless things that can be used for a fire starter, the problem is to select an item that is lightweight, small and reliable for your Ten Essentials Kit.



## Practical Fire Starters

Candle stub: Useful for a long lasting flame, a source of wax sliced off with a knife. Do not shove the entire stub under the kindling, otherwise you'll waste it all on one fire and have none for your second fire. How much or little to carry is entirely up to you.

Trick birthday candle: These are the candles that you can't blow out because it has a self-reigniting wick. Carry several since they're small.

Heat tabs of various types: Use the Esbit Trioxine or the WWII Hexamine tabs or whatever brand you like.

Wax soaked corrugated cardboard: This is a hiker's My favorite. Melt wax in a small pot, soak 2 inch squares of corrugated cardboard in the wax, and stack 2-3 high on waxed paper (sandwich wrap). When it is hard, cut the waxed paper into little biscuits of 2-3 squares. to use, fray a corner and light it, shove it under the kindling, wait a minute and enjoy a nice fire. For a nice campfire starter, insert a strike-anywhere wood match into a corrugation before you soak in wax.

Anything else you may wish to use. Vaseline soaked gauze, commercial tinder, dry BBQ starters (which is just sawdust in wax), whatever you desire.

► **First aid kit** - Prepackaged first aid kits for hikers are available at outfitters. Double your effectiveness with knowledge: Take a basic first aid class with the American Red Cross or a Wilderness First Aid class, offered by many hiking organizations. Any first aid kit should contain:

- 12 - 1 inch wide Band-Aids for minor stuff
- 1 - sheet of Moleskin and a small folding scissors for incipient blisters
- 6 - 4-inch square gauze pads for big bruises
- 1 - triangular bandage cut from an old sheet (37 by 37 by 52) for a bandage or sling (home-made)
- 1 - 3 inch wide Ace bandage for sprains and support and for holding dressings in place
- 6 - Excedrin or Tylenol for headaches and pain
- 1 - 1/2 oz tube of a triple antibiotic, such as Neosporin, to reduce the chance of infection from cuts, gouges, etc suffered from falls or sharp branches
- 1 - sharp pointed tweezers for splinters
- 1 - small roll of athletic tape (better than adhesive tape because it conforms to the body contours better)

The whole thing weighs about 5 oz, takes little space in the pack and, with a little creativity can handle most of the scrapes and bangs suffered on hikes. Notice that there is not a variety of different sizes of Band-Aids and gauze pads. You can always make the bandages smaller (the scissors) or fold the gauzes.

▶ **Army knife or multi-purpose tool** - These enable you to cut strips of cloth into bandages, remove splinters, fix broken eyeglasses, and perform a whole host of repairs on malfunctioning gear—not to mention cut cheese and open cans.

### **The Practical Ten Essentials Knife**

What is a practical "Ten Essentials" knife?

This is not the knife you normally carry in your pocket or on your belt. This is the knife that you keep hidden away in the Ten Essentials kit hoping you'll never need it. Let's look at the requirements.

1. Light weight - less than 3 ounces, preferable less than 2 ounces.
2. At least one blade, preferably locking if it's a folding knife
3. That's it.

Some desirable features to consider:

1. A Swiss Army type folding knife
2. A second blade
3. An awl to make holes
4. A saw blade to cut wood and bone

You can present a valid argument for all kinds of gadgets, a large chopping blade, etc. But the reality is that if it's too big or heavy, you will not carry it in your kit and that would defeat it's purpose.

▶ **Flashlight and extra bulbs.** For finding your way in the dark and signaling for help.

For decades, the choice was the handy flashlight with a filament bulb. From multi-celled "D" cell torches to Mini-MagLites and smaller. All had the disadvantage of a relatively fragile bulb, short cell life and weight. Bulbs can shatter or filaments break when dropped. Cells last at most a few to several hours; frugal use of light is a necessity. Spare cells take room and add weight to your pack.

With the advent of the white LED (light emitting diode), a new generation of flashlights appeared. LEDs typically last 10,000 to 100,000 hours (400 to 4000 days of constant burning), are immune to shock and basically indestructible in normal use. Moreover, LEDs use less than one tenth of the power of bulbs. A four-cell AAA three LED flashlight weighs 2.5 ounces, provides adequate light for camp use and will last up to 150 hours. At 5 hours of use a day, it would last one MONTH. A two cell D flashlight would not last even ONE DAY of 5 hour usage.

What this means is that you never have to bring extra bulbs or cells on even the most extended backpack or camping trip unless you intend to hike the AT or PCT. Similar improvements have also been made to headlamps, a major benefit to hands-free camp work and night hiking.

▶ **Sun screen and sun glasses.** Especially above treeline when there is a skin-scorching combination of sun and snow, you'll need sunglasses to prevent snowblindness, and sunscreen to prevent sunburn.

### **Other Essentials that are not in the top ten**

There are many other items that may be included in your Ten Essentials Kit. What they are and how many depends on how much bulk and weight you are willing to carry on **every outdoors outing** you go on. Because a Ten Essentials Kit is useless if you leave it at home or in camp.

▶ **Nylon cord** - Setting up tarp, hanging food, tying gear on pack, etc.

▶ **Signaling Items** - One category of items not included in the original kit are signaling items. Mirror: Lightweight Lexan plastic, about 1/2 ounce. Or if you have a compass with a built-in sighting mirror, that will do fine.

▶ **Whistle**: An essential item. You can shout only so long before you become hoarse. A whistle will work as long as you can breathe.

▶ **Emergency Blanket** -The aluminized Mylar 2 ounce model. Can be used as windbreaker, heat reflector, signaling device.

▶ **Metal can** - To carry the kit and doubles as a mini-pot for cooking / heating water.

▶ **Handkerchief/Bandanna** - Generally useful

From here, you can go hog-wild with GPS, wood saw, hand-axe, duct tape, thin wire, fish line and hook, survival handbook, etc. Remember, you must be willing to carry all this stuff.