What to Carry? Part 1

What to Carry: The Basics of Putting Together a Kit for Hiking the Appalachian Trail; Part I - Overview

By SGT Rock

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Introduction

It is often asked by hikers just starting out: "What gear is needed to hike the Appalachian Trail?" That question is as complicated as asking what sort of car is needed to drive on the interstate. The answer isn't always easy and that can sometimes annoy new hikers who want easy answers. But there are some basic ideas of what one would most likely need on the Appalachian Trail for a short hike, long distance hike, or even possibly a thru-hike. In this article I attempt to make a basic list and give the new hiker a basic guide of what to carry.

Now, as you start to read this, remember that everyone has a style, and not everyone even knows what that is yet. What I try and describe here is the basics and some basic concepts. You may find you disagree with some of the items on the list and want something different, something added, or think something I have included is not needed. Your style and experience may also change over time and you may end up changing your gear as you go along – this is perfectly normal.

Another thing: forget the idea of BEST. Another common question is "What is the best X" and change X to mean pack, boots, tent, sleeping bag, water filter, stove, or whatever else you might think of. BEST is so subjective that it defies a common answer. While one hiker may think that the Gregory Shasta backpack is the best, another may feel that the Mountainsmith Ghost is far superior. The key is to evaluate the gear based on your needs for weather, experience, and comfort level.

And lastly before I move on: remember that your gear doesn't get you where you are going; your attitude and skill does. You may hear you have to have X if you are going to be successful, well usually that isn't true. Hikers have made it using burlap sacks, shower curtains, and tennis shoes. You don't need the latest gadget, widget, or convince to make it to Katahdin or whatever your destination may be.

Weight

There has been a movement for years to lighter and simpler gear. There is a reason for this: you have to carry everything. That may seem like an obvious statement, but it is something many novice hikers fail to fully comprehend until they are a couple of miles up the trail and hit the first 1000' climb. Weight always matters! People can handle a great deal of weight provided they

have the conditioning and guts to make it. But if you plan to carry a 100 pound pack so you can have every convenience and safety gadget known to man thinking it will make you comfortable or safe, you may actually doom yourself to a more miserable hike.

Evaluate everything for weight as a general rule. If you are looking at a stove that weighs one pound and can find a stove that weighs half as much, you may want to look into that lighter stove. But in saying that, you should also remember that there are times when you reach a point based on the weather, your experience level, the trail you plan to walk, and the conditioning level you have at the beginning of your hike that may make the arctic fleece a better option than the long sleeve wicking shirt that weighs 1/4th as much. When you have a question about the comparative value about a couple of items, ask it on www.WhiteBlaze.net and see what some other hikers have found. That is what makes the internet so invaluable.

Sometimes the most important piece of gear in hiking can be a good set of postal scales. You can get fairly inexpensive scales that read down to the the tenth of an ounce or in grams. Weigh ever piece of gear you plan to carry and compare it to other gear. Sometimes you might even want to take your scales into the outfitters to weigh items and compare them before buying. Once you have the weights, use a spreadsheet to track the weights (example spreadsheet for hiking) or if you don't have spreadsheet software then download this program which is designed to do the same thing: http://www.chrisibbeson.com/pages/Ge...alculator.html

Price

Price is not often a good way to judge the reliability, quality, or utility of a gear item. There are gear companies out there that make their real money off of selling high priced equipment to people that have the disposable income to afford it - I guess they see high priced camping gear as fashion or they feel they can make some sort of brand name statement in campsites. Gear should normally be evaluated based on its usefulness, reputation with other hikers, warranty, and where you can find a good deal. If you spend $300 on a tent, remember it will get wear and tear, and may even get trashed – and then it is possible no one will honor the warranty. This could be a big problem if you are out for a long time as in Thru-hiking. A $100 dollar tent may make you just as comfortable and allow you to spend that extra money somewhere else.

There are many good sources on the internet to find used gear, like in the WhiteBlaze used gear forum. And there are places like www.campmor.com, www.rei.com/outlet, and www.sierratradingpost.com that have sales on gear all the time. Other good places to watch are Goodwill and the Salvation Army where people sometimes unload perfectly good used gear. Your local outfitter most likely has a bargain rack, a sale room, or cheap stuff bin where last years gear is being cleared out for the newer stuff – and this gear is usually a great deal because gear manufacturers often come out with something new every year just like clothing manufacturers come out with fashion: but the old stuff is just as good.

And finally, watch stores like Target and Wal-Mart. Often they have things like clothing that are just as good as the higher priced logo t-shirts and fleece without all the extra price. These stores are also know for creative gear: gear that is used for something other than it's intended purpose like a grease pot which weighs next to nothing and makes a great, cheap cooking pot.

Making Gear
Don't be afraid to make your own stuff. Homemade gear can be as good as or better than the manufactured stuff. Kits and plans about for things like stoves, clothing, packs, pots, lights, sleeping bags, and just about any other piece of gear you can think of are out there. There is even a homemade gear forum on WhiteBlaze

Making you own gear can save money and weight (leave off the fancy bells and whistles) while giving you a sense of ownership over your gear more than just buying it can. If you make something, you will also have an intimate knowledge of how it is constructed and works in case you ever have to repair it on the trail.

Needs and Wants
There are things you really need, like food water, and warmth to make your hike successful and survivable. Then there are the things that you need like a compass, map, and a way to stop bleeding that you may never need to use on a hike, but are invaluable when things go wrong. The kinds of items should be planned for first when deciding what you need. After those items, equipment get into degrees of needs and wants.

It is easy for someone to start by trying to figure out what they need everyday at home and try to find a suitable substitute for the trail. It would be easy to add a pillow, a plate, fork, deck of cards, alarm clock, wash basin, coffee grinder, radio, cell phone, extra pants for town, extra fuel for 30 days (just in case)… The list could go on forever. Sometimes people feel their wants are more important than their actual needs and end up justifying what is really a want into what they feel is a need.

Before you start down that road, think of a couple of things: The more I carry, the more I enjoy camping; the less I carry, the more I enjoy hiking. So with that in mind, are you going camping or hiking?

Well what do I really mean by that? Well if you plan to walk 5 miles or maybe even drive to a campsite and set up, then you very well may spend a lot of time in camp and may want something to do that is entertainment while you are in camp. You may also find that you don't mind the weight of an iron frying pan and whole potatoes for 10 days because you will have time for cooking and enjoying the process of cooking and cleaning. But if you are planning on backpacking for some distance, you may find that you carry so much that it slows you down; that you spend a lot of time walking to make the miles because you move slower and take more rest breaks, and that you are too tired to fool with all that mess anyway when you get to camp – you would rather just flop down and pass out in your smelly nasty hiking clothing after a couple of snickers and some cold water!

So before you add the kitchen sink, my recommendation would be to start by packing the least amount of stuff you think you need and then do a shake down hike. If you make it without the things you thought you needed, well then you didn't need them. And if you found you needed them and worked around it with the stuff you had on hand, then maybe it wasn't really a need after all. And the final thought on that – if you took something and never used (except your safety items) then maybe you should stop carrying it.

An Example List
Enough pontificating; you will eventually get on the trail and figure out what I have been trying to say anyway. So let's make a basic packing list and then break down into a discussion of that. Note that this list is not the Ultra-light hiking type list, but a fairly accurate list that a hiker may want to carry. You can add to or take away as you need. In some places very light gear is listed, in others the choices are not the lightest – just like in real life. In places I tried not to put in actual weights or names of gear so this would not end up in a shopping list to go to the outfitters with. You need to take this list (or something like it) and use it to plan how to fill each item.

Also, one last thought, this should not be a competition to see if you can beat this weight or other people's weight. This is a guide in how to build a list. Use it as just that.

1. Pack Group:
1 Backpack – XX brand…….....36 ounces
1 Pack liner – Trash compactor bag……2 ounces
1 Sil-Nylon stuff sack…….....1.3 ounces
Total…….....39.3 ounces

2. Shelter Group:
1 Tarp/Tent XX brand.……...….30 ounces
6 aluminum stakes…….....….3 ounces
Total…….....…..33.0 ounces

3. Sleeping Group:
1 Down bag, 20F rating XX Brand....32 ounces
1 stuff sack sil-nylon…….....…1.3 ounces
1 closed cell foam pad…….....…10 ounces
Total…….....43.3 ounces

4. Kitchen Group:
1 Fuel bottle…….....…1 ounce
1 alcohol stove…….....…1 ounce
1 titanium pot…….....….4.1 ounces
1 lighter…….....0.6 ounces
1 water bottle – used Gatorade bottle…1.7 ounces
1 platypus bladder – 3L…….....1.5 ounces
1 bottle iodine/1 Vitamin C…….....….2 ounces
1 sil-nylon stuff sack – food bag……...…1.3 ounces
1 plastic spoon…….....….0.3 ounces
1 bandanna…….....1 ounce
1 length cord – 50'…….....2.5 ounces
Total…….....…..17.0 ounces

5. Hygiene Group:
1 small pack towel…….....…..1 ounce

1 bottle hand cleaner – 1 ounce……...1.3 ounces
1 small zip lock…….....0.3 ounces
1 partial roll toilet paper…….....2 ounces
1 small child toothbrush…….....…..0.5 ounces
1 small tube tooth paste……...…...0.7 ounces
Total…….....…5.8 ounces

6. Navigation Group:
1 map (average weight)…….....……..2.9 ounces
1 compass…….....0.5 ounces
1 trail guide (pages of the section)...…..3 ounces
1 small light..…….....1.8 ounces
1 small bundle of paper…….....…..…….3 ounces
1 pen…….....…..0.5 ounce
Total…….....12.7 ounces

7. Repair/First Aid Group:
1 Repair kit…….....……2 ounces
1 small roll of duct tape…….....……3 ounces
1 First Aid kit…….....…2 ounces
1 set spare lithium batteries……...…….0.5 ounces
1 emergency fire starter pack……....0.5 ounces
Total…….....8 ounces

8. Luxury items:
1 MP3 player with FM radio……...…….1.7 ounces
1 camera…….....…5.4 ounces
1 extra data card……....……0.1 ounces
Total…….....7.2 ounces

9. Rain Gear:
1 rain jacket…….....….11.5 ounce
1 pair rain pants…….....….6 ounces
1 pair rain mittens……....……..1.2 ounces
Total…….....18.7 ounces

10. Clothing – In Pack, Warm Weather:
1 spare pair socks…….....1 ounce
1 spare shirt…….....…..5 ounces
1 spare pair underwear……...…….1.6 ounces
Total…….....……7.6 ounces

11. Clothing – In Pack, Cool Weather:
1 long sleeve top……...……..9.5 ounces
1 pair long pants…….....8.3 ounces

1 fleece hat…….....2.4 ounces
1 pair fleece gloves……...……..1 ounce
1 pair warm socks…….....…2.6 ounces
Total…….....…….23.8 ounces

12. Clothing – In Pack, Colder Weather:
1 insulated jacket…….....9.7 ounces
1 pair insulated pants……..…..8.5 ounces
1 pair heavy wool socks……..…..3.3 ounces
1 pair mittens…….....1.9 ounces
1 neck gaiter…….....2.1 ounces
1 pair GoreTex socks……..……..3.5 ounces
Total…….....…29.0 ounces

13. Clothing Worn, and Items Carried:
1 pair trail runners…….....….32.4 ounces
1 pair socks…….....1 ounce
1 t-shirt……....….....…5 ounces
1 pair underwear…….....…….1.6 ounces
1 pair light running shorts…….....3.7 ounces
1 ball cap…….....2.5 ounces
1 backpacker wallet with ID and cash……2.7 ounces
1 small pocket knife…….....1.7 ounces
1 watch…….....…1.3 ounces
1 pair trekking poles with rubber tips.……18 ounces
Total…….....….69.9 ounces (4.4 pounds)

14. Consumables:
2 ounce fuel per day x 5 days @ .82 ounces per fluid ounce…..8.2 ounces
32 ounces water @ 1.04 ounces per fluid ounce……....…33.3 ounces
32 ounces food per day x 5 days…….....……160 ounces
Total……..... ..201.5 ounces

1. Pack Group…….....……..39.3 ounces
2. Shelter Group…….....……..33.0 ounces
3. Sleeping Group…….....43.3 ounces
4. Kitchen Group…….....…….17.0 ounces
5. Hygiene Group…….....5.8 ounces
6. Navigation Group…….....……..12.7 ounces
7. First Aid Repair Group…….....……...8.0 ounces
8. Luxury Items…….....7.2 ounces
9. Rain Gear…….....18.7 ounces
10. Clothing in Pack – Warm Weather……..7.6 ounces

Total Dry pack Weight (Warm Weather)...192.6 ounces (12 pounds) + 201.5 ounces (consumables) = 24.6 pounds.

11. Clothing in Pack – Cool Weather……23.8 ounces

Total Dry pack Weight (Cool Weather)...216.4 ounces (13.5 pounds) + 201.5 ounces (consumables) = 26.1 pounds.
12. Clothing in Pack – Colder Weather…..…29. 0 ounces
Total Dry pack Weight (Colder Weather)...245.4 ounces (15.3 pounds) + 201.5 ounces (consumables) = 27.9 pounds.

Again, this is just an example list of what items you may want to carry. You may add to or take away from the list as you see fit for your comfort level, style, and the weather you are going into.

Next I will go into the pack by section. I find it easier if I think about my gear in groups. Each group has a purpose and intent.

What to Carry? Part 2

What to Carry: The Basics of Putting Together a Kit for Hiking the Appalachian Trail. Part II – Packs, Shelters, and Sleeping

By SGT Rock
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The Groups

In the preceding section I covered some things to think about in general when building your hiking kit. In this section I will cover some of the groups I listed and discuss the options you have as well as the pro's and con's of many typical choices you will have to make when equipping yourself.

1. Pack Group
• Backpack – the backpack should be big enough to hold all your gear and have enough suspension support to carry it comfortably. Though I mention it first, I often find it best to leave this purchase to last so that you can get something that will meet the qualifications listed above, and it will be as light and as small as you can get away with. It is obvious why light is important, but small is important in that I have found there is a tendency to fill packs with extra stuff when they provide extra space.
o External frame packs – these are the classic packs where a frame of aluminum tube is carried by a system of straps and a hip belt, and the gear goes into a pack that is attached to the frame. Frame packs are usually lighter than an internal frame pack of a similar volume and often you can find them cheaper than internal frame packs. External frame packs generally load with weight at a higher center of balance and are thus not as stable off trail as other pack options, but are generally considered well balanced for trail hiking. And with the frame system, it is easier to get air flow around your back – making frame packs cooler than other packs.

o Internal frame packs – the internal frame pack uses stays, which are generally made of aluminum, to provide an internal structure for load bearing inside the pack. Internal frame packs are usually considered more comfortable by hikers and have become the standard pack seen on the trail. Generally they weigh a bit more and cost a bit more than external frame packs. Since the pack is against your back from top to bottom, they prevent air flow and are not as cool as external frame packs.

o Frameless packs – these packs are generally just bags with straps. Some use some sort of pad to create a semi-rigid frame sheet for some extra support, but generally these packs do not do much more than provide a place to put gear. Frameless packs are lighter and can be cheaper which is making them popular with hikers trying to go lighter – but unless you can discipline yourself to a total pack weight below 30 pounds (more like below 25 pounds) then frameless should not be used. It is not a pleasant experience for many hikers to put 35 pounds of gear into a pack designed for less than 20 pounds and is a bad idea of how to save weight.

• Rain protection – backpacks do not normally come water-proof. And it is almost impossible to make them become water-proof. The standard strategy is to either cover the pack when it is wet with a pack cover or to use a liner.
o If you use a pack cover remember that they need to fit over everything including stuff you strap to the outside. The problem can be poor fit and/or punctures to the cover.

o If you use a pack liner the pack will protect the liner most of the time from getting punctured. But remember that the pack itself may get wet and will hold the weight of the water and may take a while to dry out in stretches of bad weather. Trash compactor bags make good liners.

• Stuff Sacks – you may want to include stuff sacks and/or compression sacks as a way to organize your stuff and possibly reduce bulk. More on stuff sacks later in the Sleeping Group.

2. Shelter Group
There are a variety of strategies that one could use. It depends a lot on what you are comfortable with. I will try to just hit some major points and strategies.
• Shelter hopping – this strategy assumes that you will always be able to find empty shelter space. To do this the hiker has to plan his or her mileage around the distances of shelters along the trail. The goal usually is to save weight by not carrying a shelter and to save set up time in camp once you get there by simply flopping out in the shelter. Obvious disadvantages are:
o Snoring and noise – basically you are with a group of people, sometimes in tight quarters, and not everyone has the same concept of personal space or mutual consideration of others.

o Varmints – shelters draw mice, bears, porcupines, chipmunks, skunks, and other critters. If you stay at them you may spend time simply trying to avoid loosing your food to one or having your gear ruined by small, sharp teeth.

o Space – all shelters are on a first come, first serve basis for human hikers of all types. There is no special consideration for thru-hikers or hikers that decided that they didn't need to carry a shelter of their own. Shelters do have limits on how many can reasonably fit into them and you could find a shelter full beyond capacity on a miserable night, and where no one is willing to

give you their space.

o Cleanliness – shelters do not have a cleaning staff, and some are near roads where local campers may come out and leave shelters trashed. You may end up needing to clean out the shelter before using it.

To wrap this up, if you do plan to shelter hop, it is still a good idea to bring some sort of personal shelter.

• Tent camping – tent camping is still considered a "norm" for hikers. Tent camping allows the hiker to have a generally bug free and dry experience at the cost of some weight because tents can weigh anywhere from 3-10 pounds. But tents are not always as foolproof as some assume. You need to learn site selection and how to set one up in storm conditions to avoid getting swamped or blown down. If you decide to tent, you will have to find generally level and flat spots, and may need to consider a tent footprint to help protect the tent floor. Lastly, if you do tent, please don't set them up inside shelter.

• Tarping – a good, lightweight option for a lot of hiker. Tarps do require skill if you want to stay dry, and they require the flat ground and space of the tent without giving you the protection from bugs you may crave in some seasons. There are a variety of tarps that can weight anywhere from 10 ounces to a couple of pounds. You can add bug nets based on seasonal requirements, and should consider a groundsheet to keep your gear off the wet ground when you set up. When you think of tarping, you will probably also need to add your own lines, stakes, and poles.

• Tarp/Tent – tarp/tents are hybrids that offer the protection of a tent with the weigh advantage of a tarp. Often these systems come with just about everything you need in a shelter and can weigh around 2 pounds.

• Bivies – a bivy is a bag that is waterproof. Basically you climb into it with all your stuff and sleep inside it with your sleeping bag. They offer very, very little room and many will not give you shelter if you want to open them up for ventilation in the case of sleeping out in a storm. People that use bivies often also carry a tarp or poncho to create a lean-to over their heads.

• Hammocks – recently on the scene are the camping hammocks. These shelters offer the benefit of getting up off the wet ground and generally good rain protection. The main draw back to hammocks is the lack of internal space (inside the hammock) for gear on most models, and the effect of convective heat loss when hiking in cool to cold weather. Hammock hikers have come up with strategies to overcome many of these issues, but you will want to do some research on this option before you jump into it.

3. Sleeping Group

Before I start, I want to interject some personal opinion here, so bear with me. The two things that are the biggest threats to hiker safety are lightning and hypothermia, and hypothermia is probably the easiest to fall into so the most dangerous of all things to plan for. A sleeping bag (or whatever) is your last line of defense when cold weather overcomes your clothing system. Even with good clothing planning, fatigue, poor nutrition, and illness can sap away your body heat and

leave you retreating into your bag. So when choosing gear, this is one area I feel it is best to avoid cutting corners.
• Sleeping bag – this is the standard, tried and true bedroll of the hiker. Sleeping bags can come in many shapes such as box, mummy, and flavors in-between. They also can come in a variety of fills with mind-boggling names such as Polarguard, Hollofill, and simple ones like down. Basically it boils down to a couple of basics for most people
o Down – despite what you may read from a manufacturers claim, there is still not a synthetic material that offers the loft to weight ration of down. If you want a light and warm bag down usually makes the grade. Down is also recognized as a fairly durable fill if you take the proper care as outlined by manufactures. This means cleaning correctly and storing for long periods of time un-stuffed. The main drawback to down is how poorly it works when it gets wet, wet down clumps together and falls flat so that it does not provide insulation. That said, many hikers go for years with down and never have a problem with that since they take precautions and many bags have DWR (Durable Water Resistant) shells. The last thing about down is it can get expensive – down is rated by fill, 600 being on the low end, 800 is the high end, and you can pay a lot for 800 fill bags.

o Synthetic – synthetic materials are usually cheaper, and do not have the weight to loft ratio of down. The one thing that synthetic usually does is retain more loft if it gets wet. A wet bag will still not be a warm bag, but it can be warmer than a wet down bag. Another issue with synthetics is their tendency for fills to break down over time with use and loose loft.

• Quilts – some hikers have been switching to quilts. The idea is with a sleeping bag, the section you are laying on is smashed flat and provides little to no insulation. With a quilt, the method is to tuck the quilt in around yourself or your sleeping pad. Quilts are usually made from the same things sleeping bags are made from and can save about ½ a pound over a similar rating sleeping bag. Since they are not a continuous cover, there can be problems with cold air leaking in.

• Fleece bags and blankets – occasionally I see or hear about someone switching from a sleeping bag to one of these. Often the story ends up with the hiker not being comfortable. Think about this – most of these things weigh about as much as some good sleeping bags, and a sleeping bag can be opened up in hot weather if needed. Fleece is not generally as warm and will not compress as well in your pack as a comparative weight sleeping bag or quilt.

• Poncho liners – military poncho liners weigh about as much as the fleece blankets and bags, but they are made of quilted synthetic material, so they are usually warmer and compress better than one of the fleece things. BUT, they are only good for most people down around 60, and sometimes not even that low.

• Sleeping bag liners – A way to add warmth and flexibility can be to add a liner to your sleeping bag. But think about this – 6 ounces of extra down in a down bag will add more to the sleeping bag rating than 6 ounces of liner material. Another benefit to a liner is the ability to launder the liner frequently whereas you may not want to do that as often with a sleeping bag.

• Pads – pads are a way to cushion your body from the hard ground or shelter floor. Pads are also key because they add insulation – you can almost always bet that a manufacturer's rating of their sleeping bag assumes the user is using some sort of pad. Pads are basically two types:

o Foam pads – these pads are generally cheaper, lighter, and offer good insulation. But they are usually not as comfortable with ground sleepers as the inflatable pads. The benefit to these pads are they don't puncture and go flat, and you can usually get them in wider widths than an inflatable pad. Since you can get them cheap, you could probably deal with changing them out if they ever do flatten from use. One note – there are some pads in this category that are open cell foam – they can soak up water like a sponge so pay attention.

o Inflatable pads – these pads are the more comfortable pads and recently efforts are being made to get the weight of these pads down to the same level as foam. Typically they are some sort of air-tight nylon with open cell foam inside (some expensive ones use down) so that when you open the air valve, the cells expand and inflate. Generally these pads are heavier and much more expensive than the foam pads and have the possibility to get a puncture when you least want it. They often come with a repair kit, but it is not always easy to effect repairs when on the trail.

• Stuff Sack/Compression sack – not all sleeping bags come with a storage system. Often you will have to get some sort of bag to carry your sleeping bag along in. Some of these bags can be very water resistant, and some are just nylon bags.
o Stuff sacks – stuff sacks are just sacks you stuff things into. A strategy to avoid over compressing or repetitive compressing of a sleeping bag is to get a bag that is larger than you need for your sleeping bag. This way it packs in loose and you can use it to take up the extra space in your pack.

o Sil-Nylon bags – sil-nylon bags offer good water resistance over a standard nylon sack.

o Dry Bags – dry bags are usually rubberized nylon and are designed to be totally water tight. You can use these to protect a sleeping bag against a lot of possible contingencies, but they are usually more expensive and heavier than the other options.

o Compression sacks – compression sacks are some form of bag from one of the other categories above that have extra straps on them to compress your sleeping bag into a smaller unit. For the most part, unless you are trying to stuff a big sleeping bag into a small backpack, you will probably find this option overkill.

Well, that about wore out another keyboard writing it. In the next section I'll cover all the in's and out's of the Kitchen.

What to Carry? Part 3

What to Carry: The Basics of Putting Together a Kit for Hiking the Appalachian Trail.
Part III – The Kitchen

By SGT Rock
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4. Kitchen Group

The kitchen group can have lots of moving pieces and choices – so much even the small amount of parts I am going to talk about can take up a lot of room. So I won't try to get too involved in each one. But what I will start off with is this: develop a strategy of how you want to eat. Some people don't like cooking, so they don't do it and eat a lot of no-cook foods. Others folks like the good feeling of hot food or drink in the belly, so they do cook. And some people even fall sort of in the middle and like to have hot food, but don't want to cook every meal – so they plan accordingly. Each is a choice made on individual styles of hiking. No one is wrong and everyone is right for what they prefer.

Add to that your style of cooking when you do decide to cook. Some folks want to make pancakes for breakfast with hot coffee every morning, while others will simply make oatmeal. Some will want to stir fry fresh vegetables for dinner while others will be happy with Lipton's red beans and rice dinner. It seems that most hikers fall into the later of the two categories – easy to cook meals that don't require much more than boiling some water and digging in.

So before you plan to get a 2 pound gas stove, a two quart pot, a bowl, fork, knife and spoon, a cutting board, coffee grinder, and a Lexan plate at the outfitters – decide how much you actually want to cook and what sort of meals you intend to plan for your hike. If you are going to have a hot rice or pasta meal once a day and eat cold twice a day – then maybe you just need a pot, spoon, and method to boil water.

First I will start with my favorite topic: Stoves.

Stoves

• There are 5 basic stove types: Gas, canister, alcohol, wood, and solid fuel. There are some designs are made to use more than one fuel source, but I will simply stick to the catagories of stoves rather than try to give an evaluation of various stoves. Each type of stove has its advantages and disadvantages.

o Gas – for years the gas stove has been king of the backpacking stoves. These stoves are designed to use white gas, kerosene, or maybe even car fuel - and some even use multiple fuel times. These stoves are probably the first type of stove on most people's list when they start outfitting for a long hike. Things to consider with gas:

- Gas stoves are usually the heaviest
- Gas stoves are great for high altitude and cold weather – except that the conditions that make them better than other designs are probably not the conditions you will encounter on the typical AT hike. Well unless you go up the White Mountains in the Winter and want to make a camp up there.
- Gas stoves can clog.
- When gas leaks, it isn't easy to clean
- Gas requires pumping and usually priming.
- Gas is easy to get in most places and can be purchased by the ounce.

o Canister – canister stoves are getting better, lighter, and the fuel is getting easier to find. A canister stove is a good choice these days for a lot of hikers looking for light weight and low "fiddle factor" since you generally just having to turn it on and light it. Things to consider for canister stove users:

- Canister stoves do not always use everyone else's' canisters. If you plan to get a canister stove, try and find one that uses more than one brand cartridge for better re-supply options.
- Canister stoves performance can suffer in low temperatures when the fuel condenses inside the container – causing lengthened boil times and sometimes failure to stay lit.
- Canister stoves weight can stay fairly static since the weight of canisters does not drop drastically as the fuel is used. For planning purposes a good rule of thumb is to expect a canister will weigh about twice the weight of the fuel – so a 4 ounce canister will probably weigh around 8 ounces (4 ounces of fuel and 4 ounces of canister).
- Since you must buy canisters in a set size, you may find yourself carrying multiple canisters instead of just one for some sections since you may have one canister on ½ tank and carry another canister for when the first runs out. I know a hiker that brags about how light his canister stove is compared to alcohol stove users because they have to carry as much weight as his stove weighs with a canister - yet he also carried two spares because he worries about re-supply. Hmmm 
- Canister stove speed to boil will drop as a canister is consumed since the pressure for the fuel drops. Take this into account as you play with a demonstrator stove.
- Canister stoves don't spill. There is a remote chance for a puncture.
- Removing a canister stove burner from the canister wastes some fuel, so if you go this way, try to leave the stove and canister together whenever possible.

o Alcohol stoves – these stoves are typically home made, but there are companies that manufacture alcohol stoves for sale. Alcohol stoves generally weigh less than other stove options, these are the things to consider when using alcohol stoves:

- Alcohol is harder to light in cold weather. In these situations you may have to sleep with your fuel bottle or preheat fuel.
- Alcohol can be found in a variety of places and often can be purchased by the ounce.
- Alcohol typically requires about twice as much fuel to achieve the same results as gas or canister stoves because of lower BTUs per pound.
- Alcohol will generally evaporate if spilled, and doesn't leave a mess like gas.
- Alcohol can be carried in very low weight containers such as soda bottles. Combined with a low stove weight and rapid use of fuel, this makes alcohol fairly weight efficient since the base weight is lower than most any other system and the fuel weight, while sometimes higher at the start from a town, goes down much quicker than other stove types.
- Alcohol typically does not boil water as fast as gas or canister stoves.
- Some alcohol stoves do little more than boil water. If this is all you need for a backpacking meal, you should be happy. If you want to cook, make sure you research this before jumping into alcohol as a stove.
- Alcohol stoves are usually cheap; you can get one for the price of picking up two empty soda cans.
- Alcohol stoves can be made to work for a pair of hikers, but typically they work best for solo hikers intersted in boil and eat meals.

- There are different types of alcohol that can burn, but they will not all make good stove fuel. The best option is denatured alcohol and the second best is fuel line de-icer made from methyl alcohol. You could use pure grain alcohol such as Everclear, but it would be very expensive. Along the AT you can usually buy alcohol by the once.
- You need a windscreen with alcohol stoves – don't let anyone convince you otherwise.

o Wood stoves – these stoves present the hikers with the interesting strategy of not worrying about fuel re-supply at all. The idea is to gather wood at your campsite and simply create a contained wood fire to make your meal without a lot of muss and fuss. I must admit I am fascinated by the idea myself and have played with a number of designs and concepts to try to get something like this for my own kit. Things to consider with a wood stove:

- Fuel is almost unlimited. You can cook for very long periods of time.
- Since fuel is not a problem, the stove could even be used for a controlled warming device in some places like under the eating area of a shelter in cold weather
- Since you could also add green wood and leaves, they could be used to "chase" away bugs by creating smoke fires.
- The stoves get dirty with soot and ash - so a method to keep them from getting all that muck in your pack will be needed.
- Add to the last thought that you will probably ALWAYS smell like a wood fire. To some this is a good thing.
- These stoves depend on your ability to get a fire started. If your fire starting skills are limited, you may want to practice getting a flame going in a coffee can before you decide to switch.
- Even though you will not need fuel, you will most likely need a fire starter for working with moist wood or when materials are hard to get started (ever start a fire in the rain or snow?). After using these stoves my favorite starter is cotton balls and Vaseline - which would be easy to re-supply along the trial.
- Because some people want to have a few dependable fires, they often carry some self lighting charcoal as a back up.
- When it comes to using one of these stoves in places where there are fire bans, some rangers may not take to your opinion that this is a stove and not a fire – so you may find yourself in an enforced stove-less period for a while in some areas along the trail.
- When it comes to wood stoves, there are a couple of strategies to make them work which I break down into two categories:

1. Hobo stoves which are stoves that simply create a controlled space for the wood fire and a place to put the pot when you cook. These stoves are often home made devices using a coffee can with air holes. Some people have taken to getting fancy with the idea using sheet metal to create a box puzzle shape that can be taken apart and packed flat inside their backpack – a famous one is the Nimblewill Nomad stove which anyone can make with parts from a hardware store. These sorts of stoves take a little more skill in building and maintaining a fire in a very small space.

2. Forge stoves - these take the hobo stove one step further and add a system to force air into the burn chamber to increase heat. Some of these stoves simply add an air tube where the user can blow from a comfortable sitting position to add more oxygen to the fire. Others have designed slick bellows using a modified stuff sack, and a few even add electric fans. The most well known version of this sort of stove is the Sierra Zip stove. These stoves do a better job of burning wet

wood – but you still have to get a fire started for them to work. These stoves will usually be heavier and bulkier than just a normal hobo stove – and those penalties could easily set them behind other stove options depending on how you look at things.

o Solid fuel stoves are stoves that burn prepared fuel blocks such as Esbit (hexamine), Sterno (solidified alcohol), or Triox (Trioxane solid fuel). These stoves can be fairly complicated or fairly simple. They are often the very lightest of options in stoves since they can be little more than a pot support and a place to put the fuel. A benefit to these stoves is they don't need fuel bottles, they can't spill, and the fuel can be stuffed into all sorts of free spaces until you need it. But while most of these fuels could be used to really cook – they are better suited to people that just need to heat water for solo cooking. Since the stove designs can vary according to your needs I will simply cover the pros and cons of each fuel type:

- Esbit (Hexamine) is a white block of fuel that looks a lot like a wax square or circle and can smell like rotting fish. It is the most efficient in terms of how effectively it releases BTUs of energy to heat water than the other fuels, but is also the most expensive. Despite that, when people use solid fuel for backpacking this is usually the most popular because it works better than the other solid fuel options. Things to think about with hexamine:
    1. It is sometimes hard to get, usually the best plan for this is to order a bulk of them then have them mail dropped to you.
    2. Because it smells like dead fish – it can stink up your pack. Plan to carry it in a foil vapor seal pouch – zip lock bags can still let the smell out.
    3. Hexamine is a desiccant – it absorbs moisture. Getting it wet or even damp can make it work worse – so keep it out of the rain and remember the advice to keep it in a vapor seal pouch.
    4. Use windscreen – you will need it.
    5. As I mentioned before, it usually is only good for solo cooking.
- Sterno (solidified alcohol) is easy to find because many stores carry it for cheap camping supplies and some cooking applications. Sterno comes in a can which contains the fuel that you can blow out and re-seal while burning the fuel from the can itself. Sterno is less efficient in terms of performance than just burning straight alcohol; because of this very few backpackers will use it.
- Trioxane (sometimes also known as military fuel tabs) are often blue or purple tablets that are VERY cheap and come in aluminum foil packs and can be purchased even cheaper in large bulk supplies. They burn hot, and fairly quickly – both of which are not necessarily desirable in fuel. Because of this, you can actually end up spending more money and carrying more fuel to get the desired effect using trioxane than you would if you carried hexamine.

Pots

The next thing to consider is your pot. Your pot and stove should compliment each other. It would not be wise to use a two quart pot over a small Esbit stove since it could easily tip over and spill your dinner – and two quarts of pasta could take a long time to cook over such a small flame – if it ever could do it anyway. There are a multitude of pot options out there, but basically your choices will come down to about four basic qualities: metal, size, price, and weight. Some of these things are interconnected – the weight of a pot will be determined by metal and size, as often will the price. A steel pot that is one quart could weigh a pound and only cost $5 while a titanium pot of the same size could weigh about a quarter of that and cost $40. An aluminum pot

of the exact same size could cost $5 and weigh about the same as the titanium pot. So based on these relationships, I will simply talk about two of these options: metal and size.

Metals: There are a few choices out there – you could use cast iron or glass, but the three main materials used in backpacking cookware are aluminum, steel, and titanium.

o Aluminum has been used for years. There are some concerns that some people have based on a very old study that linked Alzheimer to aluminum which has since been extensively written about as incorrect. Yet some people still believe in it and/or just don't want to take the chance. Aluminum has the following properties:

- Great heat transfer properties – aluminum transmits heat evenly so it makes it a great metal for pots.
- Cheap – aluminum is probably one of the cheapest options when buying a pot. But there are some options in aluminum cookware that changes this, like if you go for anodized (hardened) aluminum pots or aluminum pots with Teflon coatings.
- Strength – of the three choices, aluminum is the most likely to get bent up and dented.

o Steel has also been around for years. It is easy to find steel pots in catalogues and outfitters. For people on a budget that are worried about aluminum, this is their usual choice. Steel has the following properties

- Steel has good heat transfer, but can serve as a heat sink – meaning it can store heat which could be good or bad. If you want a pot that will stay warm longer, this can help. But if you are trying to use less fuel then steel can store some of that heat and not transfer it to the meal as well as other metals.
- Cheap – as mentioned above, you can usually find steel pots at a reasonable price.
- Weight – steel pots will generally weigh a lot more than the other two choices. These days most hikers tend to avoid it because of this.
- Rust – steel pots can rust, although most will not if kept up properly.
- Strength – steep pots can stand up to a lot of abuse and still work great.

o Titanium is relatively new but is very popular. The reasons are simple; it combines the strength of steel with the light weight of aluminum. It does have some drawbacks though. Here are some things to consider with titanium:

- Titanium is generally expensive. But shop around – some companies are selling some good solo pots at a fairly reasonable price. One thing I have found is pots are all made from the same quality of titanium, but not always the same thickness. They are an aluminum/titanium alloy not pure titanium which would be VERY expensive and honestly not as efficient as the alloy.
- Strength – even the alloy is very strong; it is strong like steel, while being light like aluminum – plus it won't rust like steel can.
- Pure titanium is considered an insulator – which would be bad for a pot material. But since titanium is strong, it can be made into thinner walled pots than aluminum while maintaining better strength. And since there is some aluminum in the mix, it doesn't "insulate" the meal in the pot from the heat of the stove. One drawback to this is since the pot is thinner; there is a higher chance for burning food.

o Pot sizes are a personal preference thing. So what do you need to consider? Well if you are going solo, start from the basic standpoint of what do I need and then work up from there based on style. The smallest pot I found effective for a solo hiker that still allowed me to eat well was a 0.72 liter pot. That said, I have found a slightly larger pot easier to cook in – so I now use a 0.9 L pot for backpacking. With that as a baseline, think of how you plan to eat.

- If you are in a group and want to cook in one pot – will you all eat from the same pot or will you have individual bowls to eat from? If so, then consider just getting separate pots and cooking and eating from your own pot. This gives some benefits such as each person cooking and seasoning meals to their own personal taste but may have drawbacks like longer cooking times or needing separate stoves.
- If you are a person that likes a large meal, then how large? If you need two Lipton's meals to feel full, then you probably need at least a 1.5 liter pot. If you like to eat a lot but could be happy with one meal, some flat bread, and some GORP with dinner - then maybe you can do with the smaller pot anyway and mix cooked and uncooked foods in a meal.
- Remember that your stove and pot need to work together. A huge pot won't always work on a small alcohol stove. You also don't need a large gas stove to heat water in a 0.72 liter pot – a small alcohol stove will do just fine while weighing less and the smaller flames may actually make it easier to cook without burning food. Just things to consider.

Pots can come with other options like a frying pan lid, or a cool stuff sack, a flat lid, built in handles, pot lifters included, special bottoms to connect to certain stoves, etc. All these choices are extras which are more individual style and what they need. The merits of each one are something for the individual hiker to decide. Have fun with it based on what you want. The same is true of your utensils and other dishes. If you eat from the pot, then no need for bowls and plates. If your dishes are simple rice and noodles, then a spoon can do or maybe even chopsticks – no need for a fork unless you just want one. If you want hot coffee you may want an insulated cup, but if you are just doing cold drinks, you water bottle can do it all. Maybe you are a coffee snob and want a french press or maybe you can drink the cheap flow-thru bags on the trail and satisfy your gormet coffee craving in towns when you re-supply.

Water

Another key piece to your kitchen is water. No matter what else you decide about hiking style, you need to have water. The problems with water are how to carry it, how much to carry, and how (or if) you should treat it. There are a number of products out there that some people say you need and cannot do without so it can make it hard to decide. The absolute truth is you could go without any water carrier or filter/treatment and survive. But as hikers, we don't want to just survive. So what do we need to consider when we plan for this? The answers boil down to water availability, reliability of water, weather, and style/preference. If you hike in moderate weather where there are lots of streams, then you could get by with very little water on you. If you are hiking where the water is scarce and it is hot, then you may need three liters of water with you to get to the next source without getting a heat injury. You must make the decision based on all these things – there is no easy answer, and what may work in one situation will not work or be the preferred method in all situations.

So in saying that, I will start by talking about treatment/filter methods and options. There are a lot out there and it can be a very sensitive subject, especially when you consider you have to have FAITH in how your water safety strategy works. A person with a filter may have invested a lot or money and sometimes work effort in their filter to make sure they stay healthy. A person that doesn't treat at all and drinks from the source also has invested their heath in the faith that there is nothing there to hurt them. In either case a person can dismiss illness as bad cheese, or attribute their continued existence to their method being the best. The thing to consider is

everyone that does any of these (including variants on these methods) is still alive and hiking. Saying that (and given the space I have dedicated to this article) I will not try to go too deep into the weeds about the probability of different contaminants and what works best against each and what is ineffective against each – I will simply go into the basics about each method and let you decide what you have trust in and feel will work for you.

• Filters. Filters are relatively new to the backpacking scene. They consist of some sort of material which the water must pass. The idea is to have a material that is small enough for water to pass through while keeping contaminants out including minerals and living things like bacteria and viruses. There are filters out there that have great flow rates, but that may be because they have large pores to allow the water to pass through – which could be a bad idea because they really don't filter out much at all. Things to consider with filters:

    o Mechanical filters require pumping. All filters don't pump at the same rate or with the same action. While some may pump well and work fast, others take a lot of effort for a little bit of water. Try asking other hikers with experience using these filters about their performance before buying one in order to avoid being surprised on the trail.

    o Something good about the mechanical pump system is it allows you to put your pick up line in a shallow pool even filled with junk and pump the water up and into a container as clean water. Nice trick.

    o Filter systems can maintain water in them (usually around the filter or in the pump) which can actually be a good breeding place for organisms. If you decide to go filter, learn to correctly maintain it or you can actually create problems for yourself.

    o Filter systems also usually have an end for the "contaminated" water and an end for the "purified" water. You may believe a filter works for you, but if you store these with the ends in contact you are creating "cross contamination" which basically means you are ruining all your efforts because of how you store the filter system.

    o Some filters are gravity feed which is cool if you want to purify all your water for the next day while at camp or have the time to sit and wait while you are at the water source while the water feeds through the filter - just so you can drink it. Some of these sorts of systems also work as an in-line filter for hydration systems with hoses, so you can suck the water through the system.

    o Even filter systems cannot block out all viruses unless they include an iodine membrane in the filter – so even with a filter designed to do this, you are getting some iodine in you (if that concerns you at all).

    o Pump systems usually weigh a lot more than other systems, and in-line/gravity feed systems usually don't add a lot of weight to your pack.

• Chemicals. Some chemicals have been around and used for years – namely chlorine and iodine. Other chemicals are new on the market like chlorine dioxide and Minox systems (an electronic device to create a chemical treatment using water). All chemical treatments have to remain in contact with the water a certain amount of time to be effective.

    o Chlorine is easy to get – bleach. But that said, remember bleach is MOSTLY water. You need a capful of bleach per quart to make it work. And with the way bleach works, you need to keep adding it until you can smell it in the water to ensure it works. Also – don't use scented bleach – it is poison.

    o Iodine can be bought in tablets or in a glass jar of iodine crystals that you soak in water to make the iodine solution. Tablets are easy to use and weigh very little, but can leave a stronger iodine taste than the iodine crystal method. The iodine crystals however, weigh

more and are stored in a glass bottle that could break (but I have never heard of this happening with those that use it). Iodine tablets come in bottles that can last about a week of trail time, while the iodine crystals could probably last for an entire thru-hike plus some. Iodine leaves a taste in the water which can be killed with vitamin C tablets (AFTER the water has been in contact with iodine for 30 minutes). Some people have health concerns about the long term exposure to iodine - but iodine is needed by the body - check any salt in the US and you will see the word "iodized" because iodine is added to prevent goiters and thyroid problems. So unless you have an iodine sensitivity, you should be fine.

o Chlorine dioxide is a chemical recently introduced to backpacking. It is similar to the chlorine used in urban water treatment, and is more effective than chlorine bleach with lower amounts - and it has almost no smell or taste. It is more expensive that iodine and the containers will not last as long – but it is light and easy to use.

o Minox creates a chemical in a chamber by using water and the device – so it takes some time and is sort of expensive.

• No treatment or some treatment. The fact is no one really knows how bad or good the water is in the back country along the AT. No one has done a comprehensive study of the water along it. There are many hikers that have gone the entire length and never filter or treated water. Maybe you will feel safe doing this yourself.

Remember bad water can happen even if you filter or treat because either you screwed it up yourself through cross contamination or you method was ineffective against what got you anyway. The truth is not even municipal water is always safe – and there is evidence that dirty hands will be more of a threat to your health than you water is, so try not to sweat the question about water treatment too much.

So now you have your water. How much do you carry and how? There are many ways to decide this. In hot weather general guidance is you need about 1 quart (liter) of water per hour when active. So using your trail guide you see that the next good water past camp is 7 miles away. Given that the average person will make 2 MPH, the hiker should need 3.5 hours to get there, so 3.5 liters would be about right. In cooler weather you can get by on less, but you still need to drink. So the next question is the how do you plan to tote water? Basically it comes down to three different ways: bottles, bladders, and hydration systems.

• Bottles can be as simple as an empty soda bottle or as fancy as a Nalgene bottle or as exotic as Russian surplus canteens. You decide. Nalgene weighs more and costs more (although sometimes you can get them free as give always). Soda bottles and other drinks can cost less and weigh less – and they come with a drink already in them. The main difference is while Nalgene bottles can hold hot water without deforming if they had too, a soda bottle might not.

• Bladders are collapsible containers that you can store flat when empty or have them open up to just as much as you need when you fill them.

• Hydration systems are the same as bladders, but they add a hose so you can drink from them without getting them out of your pack while you walk.

• Most hikers use some sort of combination. Some will use bottles for hiking and to drink from at meals and have a bladder for camp and carrying large amounts of water on dry trail stretches. Some will have a bladder or multiple bladders for flexibility.

Food Bag

And to finish up the section I will cover the food bag. Most hikers have something they call a food bag. While you could put all your food in your backpack in the bottom container or in separate zip-lock baggies, the food bag has become a strategy that most follow because it is convenient and it works. A food bag allows you to centralize your food supply, like a pantry – so when it is meal time you can pull out one bag and dig in to it when prepare meals without strewing your pack contents everywhere. It allows you to hang your food from the rafters when in shelters to keep the mice out of it. It makes it easier to string from a line and hang from a tree when you are in bear country, and it makes it easier to unpack and pack a single part of your load when in town for re-supply.

There is a need for bear proof containers out west where large bears can be a nuisance. While there are bears in the east, they are normally not the problem they are out west. The majority of hikers make it just fine without any special containers or Kevlar bear bags along the Appalachian Trail – but if you want to bring something like that, by all means do so. But for the majority a simple stuff sack will work, and add about 50' of cord for bear-bagging so you have a lot of freedom and you can even use the line for other things like clothing or shoelaces if you need to.

Now to move on to the next section: Hygine, Navigation, Repair, Luxury, and other items

What to Carry? Part 4

What to Carry: The Basics of Putting Together a Kit for Hiking the Appalachian Trail. Part IV – The Bathroom, Navigation, Repair Kit, Luxury Items, and other Miscellaneous stuff

By SGT Rock
Last Edited 28 April 2006

5. The Bathroom

When entering the woods you must decide exactly how much hygiene you are going to perform and how much grooming you want to do. Most men turn into "Grizzly Addams" in the woods with long beards and some only take baths in towns, but again there are exceptions that shave and shower daily. Women can go with hairy legs and shaven heads to keep things simple while on the trail while some still wear make up and deodorant daily. You will have to decide what you can live with for yourself because most other people out there will be stinky and sweaty at the end of the day anyway and probably more worried about eating and sleeping than how you look.

But hygiene is probably one of the best things you can do to keep healthy while on the trail physically and mentally. The feeling you get after cleaning up can boost your morale or wash off

some of that tired feeling. And while many people put lots of thought into water purification and treatment in order to prevent illness, simply washing your hands can do a lot more for you. Add to that the fact that a dental problem like an abscess tooth is very painful and would certainly end your hike but can be prevented by daily brushing. And finally, even a simple case of rash (in hiker slang Monkey Butt) can make a hiker significantly uncomfortable day or two of hiking, but simple attention to keeping yourself clean can prevent this from starting in the first place. Hygiene is needed on the trail!

So now that we have determined we need it, how do you do it? Well that is not in the scope of this article. For information on trail hygiene, there is an excellent article on WhiteBlaze: Trail Hygiene. After reading that, you will decide what you need to carry. Here are some ideas:

• Tooth brush. A child's toothbrush does not take up much space and will still work for an adult. If you feel you need to make it smaller, you can trim down the handle, but be careful not to make it so short you can't reach your back teeth.
• Tooth paste. There are nice small sized travel tubes that can last you a month or more on the trail. Some people also use tooth powder when they can find it or even baking powder since it can also serve to help when treating rashes. Or one last option: go without toothpaste. The brushing action alone (with some water to rinse) is enough to keep your teeth clean.
• Disposable dental cleaners. Lately there have become available small pads that you put on the end of your finger and use like a tooth brush. These could replace both your toothbrush and paste.
• Floss. Dental floss can be used to clean your teeth and you can also use it as sewing thread when repairing gear. Floss usually sews through nylon easy, is usually tougher than cotton thread, and will not rot when staying wet for long periods.
• Hand sanitizer. Alcohol based hand sanitizer is good because it can be bought in small bottles and is flammable – you can actually use it to help start fires. When you use the latrine or right before cooking and eating you can squirt a little on your hands and clean up quick.
• Pack towel. These super absorbent, quick drying towels are great for backpacking. They work much better for a hiker than a cotton towel would because they absorb a lot for their size and dry quickly. If you can't find one, you can try a car shamy cloth (the synthetic kinds) which is about the same stuff. One mistake people often make is getting one that is too big – mistakenly thinking they need one the same size as a bath towel. Most hikers can get by with a pack towel the size of a hand towel or even wash cloth.
• Soap. There is some debate about the need for this, but if you decide you need soap, I recommend mint scented soap. The reason is mint is a naturally occurring weed in the Appalachians that bears (and other animals other than grazers) do not eat. The scent of mint soap will not smell like a possible food source to critters and entice them to chew into your bag – or you.
• Razor. If you plan to shave, a disposable razor can work for a man for multiple shaves before it needs replaced – and it weighs very little. Instead of shaving cream, you can use soap to make a working lather.

6. Navigation Group

You may have heard that the Appalachian Trail is one of the best marked trails in the world. It is well traveled, hard to get lost on, and a blind man could navigate it (in fact one already has). That

said, it is still very advisable that you have a way to help navigate other than start at blaze #1 and keep going north. There are times when winter snows can cover the blazes, times where weather makes you need to get off the trail and/or bypass some sections, times where emergencies could cause you to need to find help ASAP, and times when you just want to know what you are looking at and what else is around you. Unless you hire a guide to do this for you, there is an easy way to make this happen – trail guides and maps. These documents are like the safety belt of the trail for a backpacker.

There is a plethora of trail information out there. The Appalachian Trail is probably one of the best documented trails ever. You can get trail guides that tell you what you will see almost every 0.1 to 10 miles, and you can find some guides that tell you just enough info to know where re-supply and shelters are along the trail. The choices are yours to make, and maybe you don't want to know too much about the trail before you get there. It is you choice. But just like wearing a seat belt in your car is something you can decide not to do and take the chance you never need them.

Navigation Gear:

• Maps. Maps are always the first thing people think of when planning their navigation equipment. Unfortunately the entire set of maps needed to cover the AT is large and they are not cheap. This leads people to often ask if they can do without them. The answer is yes, but at a risk. Just as you can drive for 20 years and never need a seat belt, the one time you do need it you will be glad you had it. Maps are not a magical aid that can tell you where you are either. If you carry them, you should have some idea of their usage. One thing to consider when hiking the AT – it is free to hike the AT, but the AT is built and maintained by local clubs and the money spent on maps go to support them. So for the price of the maps, you help your safety and support the maintenance of the trail you are going to walk.
• Compass. It could be reasoned that without a compass, a map is useless. Well it isn't totally true. There are methods using stars or the tips of shadows to determine north and orient a map. There are even ways to use a watch dial to do this and even figure out azimuths to travel on. BUT a compass can weigh a half once, so why not splurge? You can even get a compass that has a thermometer and a whistle so you can play tunes on it when it gets hot enough…. But seriously, get a compass to go with a map. You can get them that pin on your pack, attach to your watchband, or like me – get a watch with a built in digital compass.
• Guide Books. As discussed before there are many different books out there you can choose from. Some of the standard ones are:

    o The AT Data Book. This book small book simply tells where some things like roads cross the AT, where water can be found, and basic info about some of the shelters and towns along the AT. It is published by the ATC so money spent on it supports the trail.
    o The Thru-Hikers Companion. This book from ALDHA is made to work with the AT Data Book. It gives more detailed information about things along the trail that thru-hikers are interested in: Shelters and trail towns. ALDAH members along the trail collect the data and then ALDHA works with the ATC to provide this data so some of the money goes back to the trail.
    o The Thru-Hiker's Handbook. This book is slightly larger than the data book and

contains the information found in the Data Book with the author's information he collects about the trail via phone and mail with various service providers along the route. It is published by a private individual.

o ATC Section Guides. These books (and there are a lot of them required to cover the entire AT) can be fairly thick and usually cover a section of the trail for each volume in detail – giving a great deal of information about logistics of each trail section and detailed information about places you will encounter in the section. Sometimes it even gives historical information about the places you will pass. Because of the size and quantity required to cover the AT, they are usually not carried by long distance hikers, but they can be fun for some section hikers needing to know something about how to get in and out of a section of trail and have time to "smell the roses" along a section. Information for these guides comes from the section maintainers of the local AT clubs and they are printed by the ATC , so the money paid for them go back to the trail.

• Mapdanna. This recent invention is a bandanna that includes the data from the AT Data Book with an overview map of the part it covers. Since you get it all on a bandanna, it can be a dual use item and prevent you from needing to carry a Data Book. A part of the profits from the Mapdanna go back to the ATC. Note, these maps are not detailed enough for real navigation.

• Light. One thing you may not associate with navigation right away but should is a light. The light is used when you find yourself on the trail after dark trying to find that campsite or shelter. It helps you in the late evening or early morning to read you map or trail guide. And it helps you to find your way to the privy and back in the dark. It can be as simple as a small keychain LED or as big as a headlamp. Your preference.

• Paper and pen/pencil. Something that can be included is a way to write notes about places as you go for your journal later. They can also help you to leave messages for people at shelters in case there isn't a shelter journal (not all of them have one).

• Watch. A watch can be a navigation aid. Depending on the watch, you may be able to use it as a compass (see above) but you can also use it to determine when you need to be somewhere and where you are in relation to that place/time while doing so. Say you have to be at the Post Office by 1200 on Saturday or end up staying two extra days in town – a watch would help you keep track of that. It is easy to forget what day of the week it is let alone the time of day when you are in the woods and a watch is the simple solution. But, if you don't need to worry about when you are supposed to be somewhere, then maybe you might want to slip the handcuff of civilization and live without one. Also, the longer you hike, the better the feel you will gain for estimating the amount of trail you can cover in a given time. So by using a watch, you can estimate how far you have walked, and may even be able to guess with some certainty how many miles you have left to cover to get where you are trying to go.

The last thing I will say is that even though you may have a stack of maps and an entire guidebook for the trail, you don't have to carry it all at the same time. You can divide your maps for someone to mail you as you move along, and even take the guidebook apart and have it mailed with the maps sections the pages cover. This can save weight and it can keep you from destroying all your maps and guidebook for the entire trail in case something was to ever happen to that stuff while on the trail.

7. Repair/First Aid Kit

I lump these into the same area because some items from one may work for the other – like duct

tape can be used to make a bandage or prevent blister, or it can be used to fix a pack strap or broken sandal. I don't intend to go down the entire list of what should be in a first aid kit because it has already been covered in What Makes a Good First Aid Kit . Instead I will add to that with what you can carry for repairs without needing to add an entire socket wrench set.

• Floss. As mentioned before it can serve as water resistant thread when stitching up your pants or tent.
• Super Glue. This stuff can fix many things temporarily or even permanently. I have even fixed a broken wire connection to a circuit board of someone's CD player using Super Glue.
• Duct Tape. But who didn't already know that.
• Safety Pins. These are good for quick fixes on things, or holding together material as you sew it. There is even a good technique to put draw cords back where they belong when you accidentally pull one out using a safety pin.
• Sewing needles. These are needed with the floss when sewing something up. It doesn't have to look pretty, it just has to work.
• Extra batteries. A technique I use is to make sure all my electronics use the same sized batteries. So my light, MP3 player, camera, and whatever else I may carry can share batteries. This way if my camera batteries die, but I need that one good photo shot – then I can grab the AAAs from my headlamp to make it work. Since these could be in the repair kit a while and not be used until it is critical, I like to use lithium batteries because of the 10 year shelf life. Nothing sucks quite like needing your flashlight when the batteries are dead, and finding out your spares are just as dead.
• Fire starter. I throw this in there because occasionally you will need a fire for heat in a safety situation. A couple of cotton balls soaked in Vaseline will usually do it even in the rain if you know what you are doing. There are other things you can use for this, but that one is my favorite and it is easy to re-stock it in a trail town. Ohh, and they weigh next to nothing.
• Knife or multi-tool. I like a tool like the Leatherman Micra or some of the small Victonox Swiss Army Knives. With these I can usually make a new stove, rip stitches out of material, change a watch battery, trim my nails, cut sausage (clean it between the nail thing and the sausage thing) and other tasks that happen throughout the course of a hiking trip.
• Repair kits for specialty items. Often a stove or inflatable mattress will come with a repair kit. This may be a hint that you might need this sometime in its use. It would suck to be out with a punctured mattress and think about that repair kit they even gave you with the product that is sitting back at the house while you sleep on the hard shelter floor.
• Extra fire source. Someday your lighter will give out, you will run out of matches, or your reliable lighter/matchbook will be wet and need to dry out before it will work again. Simply add something, either a small disposable lighter or some matches, to your repair kit so you have a back up.
I am sure there are other good ideas for multi use items to include in a repair kit that I have not even begun to hit. The idea is to find a few things that can work for multiple items in as many situations as possible. The strategy should be to get it fixed until the next town and evaluate there whether you can continue with it, get it repaired better, or totally replace it.

8. Luxury Items

Now for a can of worms…

There are those that believe you do not need luxury items and then there are those that will not go on a trip without a chair, cards, tunes, lounging hammock, fishing gear, crossword puzzles, journal, camera, video games, musical instrument, stuffed animal, college homework, poetry books, animal identification cards, or whatever. The goal is to find out what you want to carry that will not kill you on your feet and back. And when you do this, it is probably more important when starting to think of what you want to do at the end of a long, hard day of work where you just had the worst day of your life. What is it that you need to bring your spirits up without a lot of effort to get out and use it? For me it is a drink of whiskey, some mellow music by Jimmy Buffett, and the chance to read a little in a book that isn't about work.

Just think of this: when you go camping, you like to have things to do that occupy your time since you aren't programming computers, tarring a roof, or watching TV. When you hike, you spend a lot of hours walking and thinking, and sweating and thinking, and thinking about food. The simple fact you stop walking and fix something to eat is going to already be something for you to do and something to look forward to. And the less you carry, the better you attitude may actually be once you get to camp.

After you start hiking a few days, you may always get rid of something you thought you needed. You can always have something you didn't think you needed but you now miss sent out to you in a mail drop. If it is something simple, you may be able to get it at your next re-supply in town. So before you kill yourself with things that sound like fun, take only what you think you can get away with, and then decide what to change as you go. It isn't rocket science – you don't have to think too long or hard on it.

That said, I will leave this list alone. You make it what you want.

Miscellaneous Items…

OK, this wasn't one of my categories. But I will be finishing the series with the next article on clothing. So before I go there I want to cover some stuff on the example packing list and maybe even a few items that make it into packing lists you may have seen on the web. This is the place where I will throw all those other implements in like hiking poles, wallets, and other assorted items.

• Hiking Poles. A lot of hikers are using trekking poles lately, and you may think that you absolutely must have them – well you don't. Of course you may want to save your knees on down hills or use a tarp-tent that needs a hiking pole for support. Or maybe you just want to use them. In any case, they are actually somewhat controversial as their use can cause extra damage and erosion to the trail. There are rubber tips that are available that help prevent that – so if you are going to use poles, think hard about getting some tips.
• Bandanna. Even thought this could be listed under clothing, a bandanna is used for so many things that it really is a standard piece of gear for most hikers. You can use if for a towel, pot holder, pre filter, hat, dishrag, etc. Also of note, since most people will avoid cotton for all their clothing, they may do the same since there are now synthetic material bandannas available. But if you try to use a synthetic bandanna in some of these applications you will end up with a

melted bandanna.
• Lighter or matches. You may need to light a stove or build a fire, melt a nylon cord end, or whatever. I prefer the disposable lighters that you can adjust the flame, others like matches.
• Pot Cozy. This is a piece of kitchen gear some hikers have to keep food warm. Others just use a fleece hat.
• Zip lock bags. One of the most helpful pieces of gear you can get. There are all sorts of ways you can use these to keep your gear sorted and dry. Freezer bags are tougher than normal ones, and can last a long time. Avoid the ones with the pull handle like you find on zippers – they don't seal well and the zip handles can break off making them useless.
• MP3 player. The new "cool gear" for hikers. These very small music storage and playback devices can include FM radios for hearing local weather and can store many, many hours of music for very little weight and space.
• Camera. This helps you to save the memories of your trip and share them with others. They can be as simple as a disposable one use camera, or they can be as complicated as an SLR 35mm camera with lenses, flashes, and tripods. The favorites lately are the digital cameras that can do it all while being light and easy to use, use small, easy to get batteries like AAAs, and use removable media like data cards which are easy to mail and light to carry lots of spares.
• Journal. Some hikers like to keep a journal of their activities so that later they can read them and remember things that may fade over time. Some will share their journals on-line or make a nice scrapbook after the hike using the pages. I once thought I would never forget the things I saw and did, but eventually started keeping a journal. Now looking back I am amazed at how quickly you can forget the details.
• Pocket Mail. These devices allow hikers to record their journal and e-mail them in towns. It also allows them to store personal e-mails and review them or answer them later.
• Wallet. In any case, you will probably want some form of ID. You will also probably need to carry some cash, and maybe some phone numbers, calling cards, insurance cards, or whatever. Instead of a full up leather wallet, many hikers use a small zip lock bag for their wallet to keep the stuff in it dry and to keep items in it from falling out. One company even offers a bi-fold zip-lock wallet that is made out of sturdy plastic and weighs very little.
• Carabineers. These are the metal snap link devices used to secure one piece of gear to another piece of gear. They were originally designed for climbing, but now there are many small ones out there that weigh less which are not designed for holding the weight of a climber. These small carabineers are good for attaching water bottles, keys, or most anything to the outside of a pack while making them easy to attach and remove as needed.
I am sure there are more possible items that could be added to this list. But instead of trying to include everything, I will just say that the forums WhiteBlaze are a great resource. If you do a search on a piece of gear, you will probably find more information and opinions about it than you were interested in reading in the first place.

And finally, on to the last article in the series: What to Wear.

What to Carry? Part 5

What to Carry: The Basics of Putting Together a Kit for Hiking the Appalachian Trail. Part V – Clothing

By SGT Rock
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Clothing

Finishing up the list of what to pack with clothing seems like exactly the right way to go. Clothing can be such a personal decision because many people needs when they buy clothing, even hiking clothing. Some hiking clothing is really "hiker fashion" clothing, some hiking clothes are purely functional, and most hiking clothing falls somewhere between the two extremes. The wearer decides what it is that draws them to that item in the first place – function, style, brands, reputation, warrantee, etc. Add to that the fact that there are so many human variations on enduring things such as heat, cold, rain, wind etc. While one person is totally comfortable in shorts and a t-shirt while there is an inch of snow on the ground, another person may bundle up in ever piece of clothing in their pack at 50F. Then people can adapt differently to these conditions while actually on the trail; while one person may find after a week on the trail they need less clothing to stay warm in a given situation, another may need more as their body fat depletes and they loose their personal insulation layer. So given all that possible variation, you will have to experiment yourself and see where you fit in. Read other people's packing lists and journals to see what works for people, and try to find someone that sounds like they have a similar comfort level when you plan your clothing.

Note. Before I move on, I want to specifically address cotton. I love cotton clothing but only in town when at things like Trail Days. It is comfortable and doesn't have stink build up like most synthetics. That said, I wouldn't want to hike in it or carry it as spare clothing in my pack because of how it absorbs and holds water. Cotton towels make great towels at home because they absorb water, but they also dry slowly. Cotton clothing such as t-shirts and blue jeans suffer from the same issues – ever get blue jeans wet and wait for them to dry? Wearing wet cotton clothing while hiking can chafe, they can mildew, and in cold weather can lead to hypothermia. Even keeping a spare set of cotton clothing in your pack for camp and/or town can be a bad idea because of the humidity in the Appalachians. Every time the clothes are exposed to air they will absorb some moisture. After a while you would end up with damp or wet clothing mildewing inside your pack. So to end this, when looking for materials for clothing, you generally want to look for synthetics and wool.

Longstanding advice has been to plan for dressing in layers and I find that this is a good strategy to follow. With layers you can add or subtract what you need to wear based on weather and exertion level in order to stay comfortable. When you start off in the morning at camp and it is cold, you may start off with wind pants, long shirt, and a cap. Under that you would be wearing shorts and a T-Shirt so that as you start walking and your body starts to warm up, you can take off the pants, long sleeve shirt, and cap as if feels comfortable to you. If it starts getting cold, you can add back the layers as needed. This supports the acronym COLD which is used in the

military to train anyone on the basics of staying healthy in cold weather:

C – Clean. Keep your clothing clean as possible. Dirty clothing does not breath as well.
O – Overheating. Do not allow yourself to overheat and sweat, you can get cold later and with wet sweaty clothing this could be dangerous.
L – Layers. Use a layering system to regulate body heat.
D – Dry. Keep everything as dry as possible. Staying dry seems to be 50% of the fight at staying warm.

Why address cold and not go into staying cool? Well I will get to staying cool, but hypothermia is one of the big dangers out there for hikers even in the southern Appalachians even in summer. You can become a cold weather casualty as high as 50F, and at altitude these temperatures can happen in any season and most anywhere on the AT. So following a good system, you can prevent hypothermia. Since I believe in the layering system and follow the layering principles, the following section is broken down in a method that supports that philosophy.

9. Rain Gear

How to keep dry? As I mentioned, staying dry can be 50% of the fight in staying warm and comfortable. You rain gear can also be used to help stay warm even when it isn't raining since it does add an extra layer of insulation and wind protection. Here are some ideas to think about:

• Rain Top. Most everyone will want something to keep your torso and head dry. Some possibilities:
o Poncho. This is the old standby that has served outdoorsmen (and women) for years. It is a cape that usually has a hood and covers down to about the middle of your thighs. A benefit to a poncho is it can serve as your pack cover and a tarp for camp, and ponchos can provide good airflow while hiking when compared to jackets. Also, when you have to stop to eat in the rain, it is nice to simply use your poncho to create a dry space and have a meal. Disadvantages can be things like ponchos getting caught on brush in overgrown trails, getting blown around in the wind, especially when crossing exposed ridges, and long tails which may be annoying while walking.
o Rain Jacket. Another good choice is the rain jacket. A rain jacket has the advantage of being form fitting, so it can keep wind from blowing water in and can also serve as a nice wind breaker when you don't have rain but do need to block wind. Disadvantages are things like water getting between your back and your pack in the rain and the fact that a jacket can be a lot hotter than other options when the pack straps create pockets of dead air inside the jacket – no fun while walking.
o Rain Hat. Not all jackets or ponchos come with a hood, and even some of the hoods are not adequate enough for some hikers. A rain hat can look like a ball cap or a wide brimmed sun hat, but have a waterproof coating that causes the water to run off. A benefit to a hat is keeping rain off glasses if you wear them.
o Packa. This product combines the form fitting of a rain jacket with the protection of a pack cover – thus eliminating that problem with rain getting between your back and your pack since you wear your backpack under the Packa. Since you pack goes inside the Packa, it also eliminates those pockets of hot air that can be created with a rain jacket.

• Rain mittens or gloves. These hand coverings can be all you need to keep your hands warm in cold wet weather. They can also work with a light set of fleece mittens or gloves to make an effective layering system that is water resistant.
• Waterproof socks. In the day of Gore-Tex clothing, there are boots made with Gore-Tex layers to help keep feet dry. Often people using these sorts of boots find that their feet sweat enough in them to counteract any possible benefit to using Gore-Tex. The issue is this: Gore-Tex still adds another layer of material for sweat to pass through and to hold heat inside the boot. Think of this: Why not wear a Gore-Tex jacket to hike in during sunny, summer hiking? It breaths right? Of course it is a bad idea because you would sweat worse with the jacket than if you just went with a shirt. Now think about what a Gore-Tex layer is doing in your boots when you don't need it. The solution some folks now use is to carry a set of socks made from a Gore-Tex or similar material that they can put on when it is wet. Then they can remove it and let them dry out at the end of the hiking day. It can also save money when you don't have to pay extra for boots with the Gore-Tex layer.
• Umbrella. A recent addition too many hiker's rain gear is a simple collapsible umbrella. The benefit is you can hike in the rain without any extra layers of clothing to make you sweat. The disadvantage is their performance in wind driven rain – in that case you may still want to have some other form of rain protection.
• Rain Bottom. Similar to the rain jacket, you may need protection for your legs. Many hikers limit the rain bottoms to colder months, and will simply let their legs get wet in warmer months. The benefit to keeping your rain pants is a windbreak layer in windy conditions. Some things you can use for rain bottoms:
o Rain pants. These are pants that are made from waterproof or resistant material. A benefit to having rain pants is you have a pair of pants you can wear in town while the rest of your stuff is in the laundry.
o Rain chaps. Some people simply wear a pair of rain leg protection. These are usually more useful if you are wearing a poncho for your rain top since the poncho usually covers to below groin level.
o Rain Skirt. Recently available, this is a simple wrap of waterproof material that will only cover a kilt, skirt, or shorts, while leaving the bare legs exposed. This can be a real benefit when hiking in hot weather since you keep your lower clothing dry without all the heat of covering your entire leg.
Rain gear materials can vary widely. Some items such as ponchos and rain jackets can be made from material that is totally waterproof. Others may be made from materials that attempt to "breath" so that they are more comfortable by letting out hot, sweaty air generated inside the material. These special materials can be fairly expensive (like Gore-Tex) or fairly cheap (like FrogTogg material). Despite the materials, some of these items add ventilation options like pit vents to help with air flow. Expensive rain gear doesn't necessarily mean it will work any better than the cheap stuff.

10. Extra Clothing – Warm Weather

Extra clothing is something you will have to decide based on personal preference. While some may wear the same clothing in camp, town, and hiking, others may want a spare set of shorts, t-shirt, and sandals to wear in camp. Some folks change socks three times a day, while others don't do it for days on end. Some ideas:

• Spare socks. Carry at least one set. When your socks get dirty, you can wash them and hang them on your pack while you walk.
• Spare T-shirt. If you carry one, think about having one long sleeve and one short sleeve so you have the option to cover your arms when you need to avoid sun burn or bugs.
• Spare underwear. Some folks will go without – and if that is your thing, more power too you. But occasionally on the trail you may get what is lovingly referred to as "bubble gut" which is a combination of gas and loose stool. One misread on which one you are letting go can end up in dirty drawers. Having a set to protect your pants from smelling like a privy and a spare to change to could be a nice idea. If you are going to go with underwear I recommend micro fiber type material.

11. Clothing in Pack – Cooler Weather

Here is where you start to add a layer of clothing for when you need to stay warm at times, but not always. You would start off hiking in the normal worn clothing layer (see below) and have these items with you for when you need them like in camp or on exposed ridges in the wind. Using this level and rain gear, you can maintain a fairly flexible system without needing lots of clothing in your pack. For me, I add this layer when I am going somewhere and expect weather to be below 60F but will be above freezing. Some ideas:
• Spare socks. Even if you carry some in the group above, another set for wearing in camp may be a good idea since the ones for walking will most likely all be nasty by the time you reach camp and you may want or need something to keep your feet warm. I also like to make these socks a little warmer (thicker) than my lower level pairs.
• Light gloves. A pair of fleece or polypropylene glove liners is a nice addition when the temps dip. Recently there was a study that showed people had a higher perceived comfort level based on how warm their hands were in cold weather – this was shown to be true despite how warm their actual core body temperature actually was.
• Warm hat. A pullover knit cap is another nice thing to add to keep heat in. A lot of heat is lost through your head.
• Warm clothing layer. This can be something like polypropylene underwear or some light fleece. A top and bottom is probably what you need, but some people also like to add an extra top like a fleece vest to whatever they choose.

12. Clothing in Pack – Cold Weather

This is the next layer level, for time when you expect temperatures to go below what your previous level cannot handle. In these cases you may be wearing your previous level when hiking or not, but when you stop, your previous level may not always hack the weather you are going to encounter. For me, I add this layer when I expect temperatures below freezing.
• Spare Socks. Again, at this point I know I am going to want some really warm socks in camp. For this level you could carry thick wool socks or fleece booties.
• Wool or Fleece mittens or gloves. These warm hand coverings may be what make the difference between keeping your hands warm enough to work while making dinner or starving. I like to step up to a mitten at this level myself.
• Balaclava or Neck Gaiter. You may encounter weather that will freeze your nose or make ice crystals in your mustache. To help warm the air you breathe, a balaclava can be an easy way to go. Another strategy is to keep your warm hat from the previous level and add a pullover neck gaiter to create a flexible system that can replicate a balaclava while giving you a few extra ways

to use it.
• Insulating clothing. At this point some heavy fleece may be a good idea. Another option I prefer is clothing that uses lofting insulation such as Polarguard 3D or down since it can be lighter and pack smaller than heavy fleece. You may be surprised at how warm you can be with a long sleeve polypro shirt, insulated jacket, and a rain parka.

13. Clothing Worn

I've ended my clothing section with the clothing you wear. Maybe it should be the first clothing discussed since your extra clothing has to support what you already wear when starting. But in this case I left it last because I wanted you to think about all that stuff we have already gone through before you go on to what you are going to wear while hiking. You hiking clothing should be comfortable and allow you to stay cool in hot weather. It does not have to be the warm, protective layer – that was already put in your pack for the times you need all that. This is going to be the clothing you might just say "screw it all" and jump into a river or lake, while also having the general acceptance to be seen in public in most restaurants and stores.
• Footwear. This is probably the most important part of this section. Your feet must take you everywhere on the trail, so your footwear needs to provide adequate protection while also ensuring comfort for your feet. You can have so much protection that your feet are sweaty, crammed, and forced to conform to your boots. You can also go so under protected that you endanger your feet – although a few folks have successfully hiked the AT barefoot. But at any rate, you will probably have to replace footwear along the trail whether it is at the heavy extreme or the light extreme – so be ready for the possibility you pick the wrong footwear at the start of your trip. Another thing to consider is the general wisdom (supported by research) that one pound on your feet is equal to five pounds on your back for the amount of effort it takes for the hiker, so heavy boots may not be the optimal way for someone trying to get broke into the trail to actually do it. Some footwear to consider:
o Barefoot. Not personally something I would do, but it has been successful for a few. The benefit to this would be low cost, low maintenance, low weight, and easy to clean. The draw backs – well you can see how cold it could get and how easily you could hurt your feet if they are not ready for this or you are not careful enough while walking.
o Sandals. For centuries people have traveled long distances in sandals. Recently some ultralight hikers have gone to trying sandals in an effort to make their footwear less complicated. What have resulted are some sandals that are built with toe protection, wide straps to prevent chaffing, and tread designs for trail use.
o Running Shoes. Another option is running shoes. They are built for people that can put a lot of stress on their feet by running, and they can hold up to a few months of abuse while being cheaper, dry faster, and much lighter than many hiking boots. A disadvantage can be the tread designed which may not give much traction on muddy trails.
o Trail Runners. These shoes combine the benefits of a running shoe with a slightly more aggressive tread pattern and many times also have a little more "body" to them than a running shoes. This generally makes them slightly heavier than the running shoe.
o Light Boots. These boots are usually low top fabric boots. They give more ankle support than trail runners and running shoes while attempting to give the foot a little more protection and support.
o Medium Boots. Normally higher topped than the light boots, these were the normal standard for hikers for many years. There has been a general trend lately to move to lighter footwear, but

many experienced hikers still swear by them.
o Heavy Boots. These monster boots will sometimes outlive the user because they are rugged and built to last (usually). They are suited to mountain climbing and such, but are probably overkill for trail hiking on the AT. Still, some people will use them and be successful.
• Socks. The sock is designed to generally prevent your footwear from scraping the skin off your feet and to cushion the foot from the places in your shoes most likely to cause blisters. Heavier footwear doesn't always mean you need a heavier sock, but I have found that when I hike in trail runners or running shoes my socks are almost nothing compared with what I use in boots. Sock choice can often be influenced by how your footwear fits in the first place since a boot that has a lot of extra room may cause you to wear thick socks while another with less room may cause you to need thin socks. Some hikers also hike with a liner layer sock under the heavier sock in order to create a lower friction environment around their feet. This is something you will most likely need to experiment with to see where you are comfortable.
• Gaiters. At the top of some hikers' footwear they add another barrier to keep out sticks, rocks, and dew. Not all hikers like them or use them, and others swear by them.
• Shirt. Well not everyone wears one of these. Some men go topless and some women wear a bathing suit top. But I recommend you have one of some sort of shirt since pack straps can tear up the skin on your shoulders or neck if you don't have calluses there yet. Something to consider based on your pack fit is whether you want a shirt with a collar to protect your neck from getting chaffed or not. Depending on your skin, you may also want a shirt with long sleeves to prevent sun burn. In places you don't need it you can always push the sleeves up.
• Underwear. Discussed earlier, not everyone wears it on the trail.
• Shorts. This is the normal wear seen on the trail for most hikers. They can be as light as spandex or runners shorts, or as complicated as cargo shorts with 6 pockets.
• Trousers. Some folks want full leg covering even in summer to protect their legs from insects, thorns, sun, etc. An option is to go for zip-off leg trousers.
• Skirt. Some women like to hike in a skirt rather than pants or shorts because of cooler air flow. I imagine it is easier to use the bathroom in the woods wearing a skirt.
• Kilt. A recent trend in male hikers is to switch to a kilt. The benefits of a kilt are similar to those of a skirt for a woman.
• Hat. You may want a hat to keep the sun and rain off your face. A ball cap makes a good "front porch" for your face, or a wide brimmed hat can even add that same protection for your neck and ears. Some people use those caps that look more like a headband with a visor for better ventilation for their head. Another option is to use a bandanna as a pirate head cover or sweat band. You can use almost any of these hats as a cooler in hot weather by dipping it in a cool mountain stream.
So that wraps up recommendations about clothing. You can spend mega bucks on clothing and not be any more comfortable or happy than they guy that gets all his stuff cheap from Wal-Mart. Remember that hiking clothing is a fashion to some and can drive the price up without adding any better performance or quality.

14. Consumables

I know I said I was going to finish the article on clothing, but this does need to be mentioned. Consumables must be planned for when determining pack weight. But they can be a good weight since it goes down the longer you are out. You may also want to think about how much of a

consumable you carry. You don't need a 12 ounce bottle of insect repellant when you start hiking in March. You won't see bugs for months, and you won't need that much bug dope ever in a single stretch of trail. If you can get the same product in a lower amount that fits your re-supply points, then carry enough to get you to the next re-supply, or maybe enough to last you to the second or third re-supply. Other options are to share buying supplies in town with other hikers and then dividing out the amount each of you need. Think of this: often there are stories of hikers starting a thru-hike with a gallon of stove fuel when it is available along the trail by the ounce – think of the wasted space, effort, and energy to pack all that when it isn't needed!

The big three things that most people count as consumables are food, water, and fuel.

- Food. While not foolproof, a good general rule is to plan for about 2 pounds of food per day. Another good rule is to carry a little extra. So if you are going for 4 days between re-supply, carry 5 days food.
- Water. This was mentioned earlier, but I bring it up again. Water weighs more than one ounce for every fluid ounce you carry. So if you carry a lot of water, you carry a lot of weight. Think of how often you can re-supply with water and determine how much you really need to carry.
- Fuel. It is a good idea to practice with your stove before you hike so you know how too cook on it and how it works in a given situation. When you do this, you can also figure out how much fuel it uses to cook a standard meal, this way you can plan how much fuel is realistic to carry. No need to carry 3 fuel canisters when you only need one every two weeks and you can re-supply every 4 days.

Conclusion

In conclusion, I hope I have covered how to put a packing list together in enough detail for you to plan your own kit and decide what you really need without giving you the idea that you have to follow a certain list or go with a specific set of guidance if you are going to make it on the AT. There are as many ways to do this as there are people on the trail. This isn't the Army where your NCO tells you what you better have or else…

Remember you are out there to have fun and your gear will enhance that. Also remember that it isn't you gear that will get you to Kahtadin, it is your will and self motivation. Don't sweat the packing list so much you loose sight of that fact.

Good luck!