

Backpacking

Troop 2970

Boots – Your Propulsion System

- Lightest possible boot that will handle your load
- Leather – last longer, more support, most protection, but long break-in time
- Fabric and Leather – less expensive, lighter, minimal break-in time
- Size with hiking socks and liners
- Feet swell when hiking
- To size – slide foot to very front of boot with laces loose, you should be able to get one finger between your heel and the inside of the boot

Foot Care

- Use Shakedown hikes to find those hot spots and fix before you start
- Trim toe nails
- Bring moleskin, band aids, etc. for hotspots and blisters
- Stop early to check for hotspots – don't wait for it to really hurt
- Keep feet clean and dry as possible
- Change socks if needed at lunch
- Extra socks and liners recommended

Clothing

- No Jeans or Cotton (please)
 - If jeans get wet they take forever to dry
 - They are heavy and don't breath
 - Difficult to layer
- Dry-wick light weight loose fitting clothing
 - Pants that zip off into shorts
 - Short sleeve t-shirts (synthetic) – like class B scout shirt
- Layer clothing
 - Long johns (dry-wick) no cotton underwear
 - Fleece pull-over

Clothing

- How much should you bring?
- How much do you want to carry?
- How long is the backpacking trip?
- Remember you still have crew gear to carry
- A 7-10 day trip:
 - One top and pants/shorts for sleeping in
 - Two pairs of hiking pants/shorts, one to wear
 - Two base layer t-shirts, one to wear
 - One long sleeve t-shirt, mid layer
 - 2 to 3 pair of underwear and socks
 - 1 fleece top
 - 1 long underwear bottom

Be Prepared

- Always bring rain gear – better dry than wet
 - Rain jacket – doubles as wind protection in cold
 - Rain pants
 - Preferably no ponchos
 - If it might rain all weekend bring boots not sneakers
- Type of rain gear
 - \$ Vinyl – gets hot quick, doesn't breath
 - \$\$ Coated Nylon
 - \$\$\$ Nylon with Gore-tex

Be Prepared

- Cold weather = Layer, Layer, Layer
 - A hat especially for sleeping
 - Gloves – warmth / waterproof depends on HA
 - Warm socks – wool
 - Change clothes before sleeping, clothes that you didn't sweat in all day will keep you warmer, light weight loose fitting to have warm air layer between you and your clothes
 - Put tomorrow's clothes in the bottom of your sleeping bag at night to keep them warm
 - May want to put your water bottle in your sleeping bag to avoid it freezing overnight

Sleeping Bag and Pad

- Synthetic light weight compressible backpacking sleeping bag
- Water proof compression bag for sleeping bag
- Synthetic light weight sleeping bag liner
- Light weight foam or self-inflating pad
- Water proof bag for pad

Other Required Items

- Personal First Aid Kit (small)
- Nalgene – at least two water bottles, quart/liter size
- Cup, bowl or deep plate, spoon, fork (or spork), in lexan, plastic or metal
- Flashlight – small
- Waterproof dry bag for clothes
- Compass and Map (water proof map bag)
- Toothbrush and Paste
- Required Medications

Other Required Items (cont.)

- Matches & waterproof match container
- Small pocket knife or multi-tool
- Sunglasses
- Sunscreen
- Insect Repellant
- Watch
- Soap (non-polluting)
- Whistle

Other Required Items (cont.)

- Compression bag for all clothes
- Large freezer bags (leave no trace)
- Daypack for day hikes
- Toilet paper
- Small shovel
- Hand Sanitizer
- Duct Tape – small amount
- Towel – preferably small light weight chamois towel

Optional Items (cont.)

- Lightweight camp shoes – tennis shoes or water shoes – closed toe shoes
- Cotton balls coated in Vaseline for starting fires
- Handkerchiefs / Bandannas
- Mosquito head net
- GPS device
- Hiking poles
- Gators
- Water shoes – closed toe – river crossing

Backpacking

- Backpack – Internal Frame
 - Internal frame preferred
 - The frame is build inside the backpack
 - The frame can sometime be adjusted in size and can be bent to fit the torso better
 - Hugs your body
 - They have a lower center of gravity
 - Better for carrying more gear – around 5000 cu in
 - Better for off-trail, better for balance
 - More narrow and higher for better movement
 - Lots of adjustments

Backpacking

- Backpack – External Frame
 - External frame not-preferred
 - Better for carrying loads of ~3500 cu in
 - Spaced from your back – cooler, tolerates lumps, etc.
 - Higher center of gravity can cause you to lose your balance
 - Allow you to walk upright more easily
- Other backpack features to consider
 - Top Loading
 - More water-proof
 - Better Durability
 - Compartmented
 - Organization built in – everything has it's place

Backpacking

- Pack Adjustments
 - Torso length
 - Too Short = Shoulders only
 - Too Long = Hips only
 - Hip belt
 - Rides on hips
 - Full contact
 - Shoulder straps
 - Should wrap around shoulders – level to moderate
 - Width to fit shoulders
- Rain cover for backpack required

Backpacking

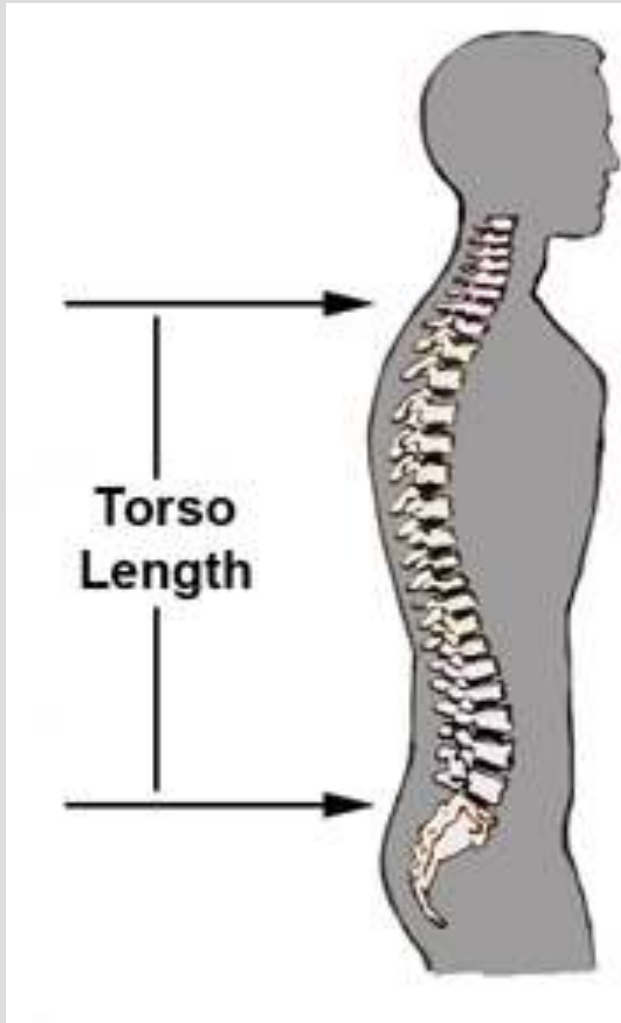
- Backpacks should ride on your hips – the hips should carry 80% of the load
- Backpack shoulder straps should wrap around the shoulder to stabilize the load and carry 20% of the load
- Load the backpack
- Bend slightly forward and attach the hip belt so when you stand straight up most of the weight is on your hips
 - The hip belt should be as tight as you can make it without pinching yourself
- Tighten the shoulder straps next and make sure they are narrow/wide enough – then connect the sternum strap

Backpacking

- To find the right size backpack you need to know your torso length
 - This takes a friend or family member to measure
 - Use a flexible measuring tape
 - Stand straight up
 - Find the 7th vertebra (C7), where your shoulder meets your neck – tilt your head forward to locate it – the bony bump at the base of your neck
 - Next find the top of your hip bones – place your hands on your hips, thumbs in back, locate your pelvis
 - Measure from your C7 to your thumbs in a straight line down your spine

Backpacking

- Find your torso length



Backpacking

- Proper Packing
 - Max weight $\frac{1}{4}$ – $\frac{1}{3}$ of body weight
 - Many AT hikers backpacks are about 30 lbs
 - Distribute crew gear – including food
 - Water proof bags inside and rain cover outside
 - Pack for good balance – horizontal distribution of weight
 - Pack the tent on top for quick access
 - Pack all raingear, water, snacks, sunscreen, etc. for easy access
 - Pack hard, sharp objects, i.e., stove, pots, fuel, tent poles away from your back – toward the outside of the pack

Backpacking

- Proper Packing
 - Put your sleeping back in a separate bottom compartment
 - Minimize gear outside of bag
 - Use quality accessory straps
 - No bungee cords
 - After you are packed, cinch down your pack so it is slim, use the packs compression straps
 - Makes your load secure and stable
 - The fatter your pack the more you have to bend forward to keep the center of gravity over your hips
 - Fat packs = Sore backs

Backpacking

- Proper Packing
 - On trail packing:
 - Pack heavy items in the upper portion of the backpack
 - Creates a higher center of gravity
 - Centers the pack weight above your body so it is easier to carry
 - Off trail / bouldering packing:
 - Pack heavier items closer to your back in the middle of the pack for better stability
 - Women
 - Naturally have a lower center of gravity than men
 - Might want to always pack like going off-trail

Hiking Poles

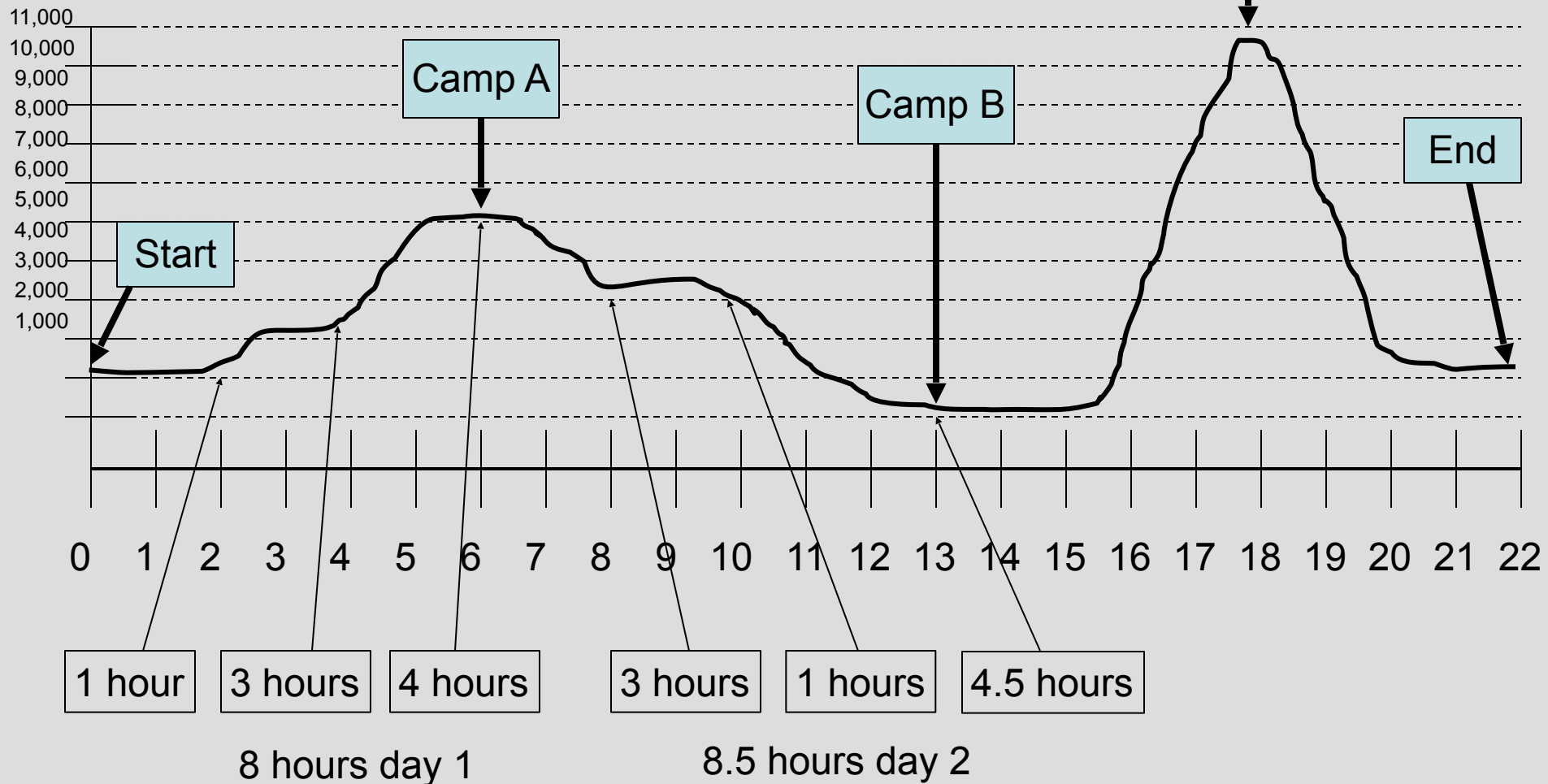
- Helps you balance better
- Ease strain on joints
 - Medical Science journal – January 2007 published a study that found using hiking poles reduced the force exerted on joints
- Sizing hiking poles
 - Make sure the grip is comfortable – you'll be holding it for hours
 - Wear your hiking boots
 - Pole tips should touch the ground with arms bent at a 45 degree angle

Backpacking – How Fast?

- **With Packs**
 - 2 miles per hour + 1 hour for every 1000 feet of elevation change
- **Without Packs**
 - 3 miles per hour + 1 hour for every 1000 feet of elevation change
- **Build a Time Control Plan**
 - Know in advance how far, how fast, how hard, what we will see when
 - Plan for water on hike, breaks, when to leave/arrive

Route Planning

- Estimate Times



Route Planning

- Trip Control Plan
 - Day 1, 8 hours, after 4 hours have lunch before 2 mile up hill hike
 - Day 2, 8.5 hours, after 4 hours have lunch before 3 mile down hill hike
 - Day 3, no heavy backpacks, 11 hours 40 minutes, all up hill
 - Day 4 no heavy backpacks, 10 hours 20 minutes, all down hill

Food

- Never bring food into tents
 - Leaves smells
 - Attracts animals
- Keep food in bear bags
- Great hiking snacks to refuel include:
 - Trail mix
 - Energy bars
 - Dried Fruit
 - Beef Jerky
 - Cheese and Crackers

Food

- Good Food means Good Morale
 - Plan your menu's – Test your menu's on shakedown hikes
 - Need a detailed food buying list
 - Repackage all supermarket food
 - By meal, pre-measured, with instructions
 - Go for one-pot meals for easy clean up
 - Bring spices to keep it fun and interesting
 - Remember to ASK about Religious and Health requirements

Shakedown Hikes

- Required for all high adventure hikes
- Recommend a minimum of 3 shakedown hikes prior to HA hiking trip
- Prepares the body and mind for hiking with heavy backpacks
- Allows time to tune boots and backpacks
- Forces gear inventory
- Test food prep and menus
- Put outing in scouting
- Builds crew teamwork!

Where to Buy Gear

- Recreational Equipment Inc. (REI)
 - <http://www.rei.com/>
- Eastern Mountain Sports (EMS)
 - <http://www.ems.com/>
- Campmor
 - <http://www.campmor.com/>
- Mountain Gear
 - <http://www.mountaingear.com/>
- Cabela's
 - <http://www.cabelas.com/>

Leave No Trace

- Plan Ahead and Prepare
- Travel and Camp on Durable Surfaces
- Dispose of Waste Properly (Pack It In, Pack it Out)
- Leave What You Find
- Minimize Campfire Impacts
- Respect Wildlife
- Be Considerate of Other Visitors