

Backpacks

1. Choosing a pack

External Frame

Pros

1. Lots of pockets - Easier access to any gear at any time
2. Less expensive - Most cost \$50 - \$150 for reasonable pack
3. Weighs less (3–4 lbs) vs. internal frame pack (6–8 lbs).
4. Cooler in hot weather – frame holds canvas away from body
5. Fewer adjustments needed –simple buckle and strap system
6. Weight rides high over the hips

Cons

1. Carries less - Most hold between 3000 – 4500 cubic inches of space
2. Little or no flexibility - poor balance
3. Noisier
4. Less comfortable

Sizing an external frame pack

1. Packs vary from manufacturer to manufacturer.
2. The length of the frame should be adjustable to the size of the carrier
3. With Hip belt on, tighten shoulder straps
 - a. If straps come off frame about even with shoulder = pack fits
 - b. If straps drop down, pack is too small = too much weight on shoulders
 - c. If strap goes up, pack is too large = too much weight on hips.

Internal Frame

Pros

1. Carries more - Most hold between 3000 – 7500 cubic inches of space
2. Incredibly comfortable – the number one reason to get one.
3. Better balance – more agility since pack is held close to body.
4. Better in winter – pack closes better to keep snow out
5. Better for off trail, rock climbing

Cons

1. Very sweaty against your back
2. One big bag
3. More expensive – good pack costs \$150 - \$250
4. Weighs more, weight carried lower so you need to bend over more
5. Can't cram stuff on the outside

Sizing an internal frame pack

1. Packs vary from manufacturer to manufacturer.
2. Pack should be fitted at the retailer to ensure proper fit.
3. The frame stays or the frame structure should extend 2 – 4 inches above the shoulder
4. The shoulder strap should follow the contour of the shoulder and join pack ~ 2 inches below top of shoulder. The position of the shoulder harness can usually be adjusted. The lower ends of the straps should run about 5 inches below the armpits. On the shoulder straps you may find load lifter that connects to the pack at about the ear level and meet the shoulder straps in front of the collarbone. These help pull up the top of the pack into your shoulders.
5. The sternum strap should cross the chest below the collarbone
6. As the hike progresses, adjustments can be made to move load to different muscle groups, thus making the hike less tiring.

2. Other suggestion in a backpack

Size

Needs to be big enough to carry all your stuff but not so big you will overfill it.

<u>Length of trip</u>	<u>External frame</u>	<u>Internal frame</u>
2 – 4 days	1500 + cu. inches	3500 + cu. inches
5 – 7 days	2000 + cu. inches	4500 + cu. inches
8 – 10 days	3000 + cu. inches	5500 + cu. inches

Loading a backpack

1. Consider best way to distribute the weight
 - a. For flat ground, weight should be high and close to body – place heavier items between shoulder blades
 - b. For steep terrain, weight should be lower for better balance – heavy things toward middle of the back.

- c. Women should carry load lower in the pack (like steep terrain) since their center of gravity is generally lower.
2. Lash tents, sleeping bags to outside of pack for external frame pack and low/inside for an internal frame pack
3. Horizontal weight distribution should be balanced between left and right
4. Generally, clothes stuffed on bottom and food/stove/fuel in top compartment – 50% of the weight should be in the upper 1/3rd of the pack.
5. Hip belt should have enough room to account for different layers of clothing on the scout. If the belt is too loose, socks or clothing can be inserted to snug up the fit.
6. Avoid hanging too much stuff on outside of pack – its noisy and can snag branches
7. Important things (map, gorp, water, etc) should be relatively accessible while on the trail
8. To protect from rain, line sleeping bag stuff sack and inside of backpack with plastic garbage bag.
9. Fuel bottles should be place in a leak proof bag and kept separate from food.

How much weight

1. The general rule is to carry up to 25% of your body weight. On winter camps or longer trips, this percentage may go up.
2. Tips to improve comfort
 - a. Try on your loaded pack at home and carry around house for an hour
 - b. Adjust your pack ahead of time rather than at the trailhead
 - i. Check all zippers
 - ii. Check all pack buckles
 - iii. Check he pack bag for rips or tears
 - iv. Check attachment pins on external frame packs.
 - c. Weigh your pack and compare to body weight
 - d. Look at what you are bringing – get rid of the nonessentials (no D-cell flashlights!!)
 - e. Split the load amongst the group. You may only need 1 stove or a single water treatment system for everyone.

