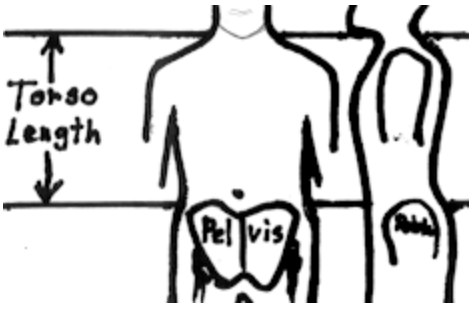
Advice on Buying a Pack

A backpack is one piece of gear that you could hold off on buying. A serviceable one can be relatively expensive and, with all the different styles and sizes, you could end up with one you will regret. Borrow one, or several of different styles and sizes, to get a feel for what is right for you. Most of the following observations for buying a pack are also applicable to renting or borrowing one. The objective of getting your gear there and back is the same and either way you want something that is reliable and comfortable. The difference is that, if you buy the pack, you are stuck with it. You may be able to resell it, but usually at a substantial discount. So, gain experience regarding what you need and want and become sure that backpacking is not just a passing fad for you before you take the plunge. Alternatively, for a starter, consider buying a good quality used pack from someone who has outgrown, upgraded, or no longer uses his or hers. Be careful though, to not get a pack that is too dated because pack technology has advanced quite a bit, especially with regard to straps that increase comfort and help control your load. Many older packs don't have sternum straps, load control straps, compression straps and integrated water bottle holders. Some don't even have a padded hip belt, just a bare strap/belt.

Interestingly, the choice between external- (left illustration) or internal- (right illustration) frame packs is considered to be a relatively less important choice than the criteria listed. Internal and external frame pack designs seem to be converging, with external frames sometimes taking on nearly the same profile as internal frames -- tall and narrow with a bottom (sleeping bag) compartment -- and internal frames adding many external pockets and places (web daisy chains and lash patches) to hang things off the top, sides and front outside the pack -- areas where external frames have traditionally excelled. External frames have also become more flexible (use materials other than steel or aluminum). Both have added mechanisms to adjust the shoulder strap position, a feature first found only on a few external frames. General-purpose external and internal frame packs have merged functionally (specialized climbing and "contour" packs are exceptions). That is why your focus should be on function, not style. If you want to make a fashion statement, you can do it with a $1,000 custom hot pink and yellow space-aged cloth pack with carbon fiber or heat-treated titanium stays or frame, carboplast buckles and silk-lined shoulder straps. The rest of us will buy a functional pack and use the rest of the money to go on an adventure. Check the "packing bit" for a detailed illustration of internal and external frame pack configurations and packing/storage possibilities.

Basic criteria for choosing a pack should be:

- **It fits your build now and later (is adjustable).** Adjustability is particularly important for novices who haven't quite figured out how to make a pack comfortable or who may change height or weight. Check the range of adjustable torso lengths (shoulder straps and/or hip belt adjust so that the distance between them can be changed). Further try not to be at the outer end (high or low) of this range. You are likely to be most comfortable if you hit the midpoint of the adjustment range. All packs are different and manufacturers use different measurements to distinguish between "small", "medium" and "large" or between "adult" and "junior"/"scout" sizes. However, if you are shorter than 5'4" you may want to check out the "smalls" first. If you are taller than 5'10" - 6'0" you might try a "large". A medium may be your size from 5'2" to 6'0". Some manufacturers have packs specifically designed for women and non-adults. Better packs are somewhat adjustable and overlap in size ranges. There is no substitute for trying on the pack you buy (with weight in the pockets and compartments) or for borrowing one that is similar in size, construction and manufacturer to the one you are considering. Those wanting a more precise starting point might look to the pack manufacturers stated "torso length" range. What is torso length? Run your hand down the back of your neck until you feel a lump very near the tops of your shoulders. People tell me this is on the 7th vertebra. Anyway, measure from here down to near the top of your pelvis (hip crest), as shown in the illustration. This is your approximate torso length and you probably want to start by choosing a pack size that has this measurement near the midpoint of its torso range. If you are robust around the waist, an "extension belt" can often be fashioned from a foot or two of compatible width webbing (usually 2") and a quick release



buckle. Mate the original buckle male and female ends on one side of the extension and the ends of the new buckle on the other end (that way you don't worry about buckle compatibility).

- **Well-designed system of straps.**
  - Padded Shoulder Straps.
  - Padded Hip Belt.
  - Sternum Strap installed or retrofitted.
  - Load Control Straps considered a plus.
  - Stabilizer Straps on internal frames.
  - Compression Straps necessary across large zippered front-loading compartments, considered a plus for load positioning and stability for all packs.

- **Sufficient storage space, but not so much that it is bulky and heavy.** A starting point might be 3,200-4,500 cubic inches for an external frame and 4,500-6,000 cubic inches for internal frames. Smaller (100 lb.) scouts may be able to get by with 500 fewer cubic inches because of the smaller size of clothes and sleeping bag. Packs sold as "day packs" are too small and even those sold as "rucksacks" and "day-and-a-half packs" are marginal in size for all but the smallest scouts and you should stay away from them.

  How pack size is measured can be confusing. Sometimes different packs claim the exact same capacity, but one holds much more gear than the other. This is baffling—especially because the measuring process has been standardized for several years. The standard entails using 20mm plastic balls as the filler. Packs are loaded up and then contents are emptied into a measuring device. According to the standard, capacity measurements should not include any compartments that are not entirely sealed by zippers—such as shovel pockets, bottle holders, compression pockets, etc. It is suspected that some of the overstated pack figures erroneously include the capacity of these pockets. This can be very deceiving and frustrating, especially if you're shopping online and don't have the ability to compare sizes in person.

  Another point of confusion is that some packs are measured in cubic inches and some are measured in liters. Most companies are stating capacities in liters these days, but not everyone. In general, a daypack will be under 2,500 cubic inches or 40 liters. Weekend packs are typically 2,500 to 4,000 cubic inches or 40 to 65 liters. Weeklong packs range from 4,000 to 6,000 cubic inches or 65 to 95 liters. Expedition packs are 6,000 cubic inches or 95 liters and up. For rough comparison purposes you can convert liters to cubic inches by multiplying the liters by 60. Vice versa, you can convert cubic inches to liters by dividing the cubic inches by 60.

  The most foolproof way to be sure that you're getting the size you need is to compare in person. Bring your typical hiking load to the store with you to make sure it fits. But if you're shopping online, it pays to ask questions. Make some phone calls (to the manufacturer, not the online retailer) and pry. It just might save you $15 in return shipping.

- **At least three external pockets, one set of lashing points (two sets for external frames) and "D" rings on shoulder straps.** "Contour" packs just don't make much sense for general backpacking because they lack enough external pockets. On the other hand, impressive are the number and design of external pockets on the Cabela's Wind River and the Kelty Red Cloud -- affordable internal frame packs that blend together the "best" features of traditional external and internal frame designs. External pockets are a necessity for accessibility and for isolating potential contaminants (like stove fuel). In addition, expect separate main and sleeping bag compartments on internal frames. Lashing points combined with lashing straps, light rope or twine provide "expandability" for any pack, just in case you want to carry something extra out (garbage or a share of the load of an injured or weaker scout), want to isolate something (soiled bear canister or contaminated clothes). They are a "must have" on external frames, since basic equipment is attached on the outside. Some method (preferably "D" rings) should be provided on the front of shoulder straps to hang things (compass, event pass, whistle or camera bag).

- **Places for two water bottles or a hydration bladder.** At least one bottle needs to be accessible without taking the pack off. Inaccessibility leads to dehydration. Packs can be retrofitted with a hip belt bottle bag from Campmor. For western treks (like Philmont) and even "ridge-running" eastern treks, two quart bottles may not be sufficient but extras can be stowed or lashed in less convenient places. Nowadays, many packs come with a

hydration sleeve to house a hydration bladder. Hydration bladders typically can hold 1-3 liters and have a drinking tube that clips to the shoulder strap. These hydration bladders make water even more accessible thus helping to reduce dehydration. If your pack does not have a hydration sleeve, many companies also make add-on bladders which can be secured onto or inside most packs.

- **Solid construction using standard components.** Look for reinforced stress points:
    - Grommets, webbing or other reinforcement where pack attaches to frame.
    - Double cloth or other reinforcement where straps attach or where lashing points are provided.
    - Heavier material on bottom of internal frames where they "sit" on the ground.
    - Compression straps across front-loading zippered major compartments.
    - Seams that are "rolled and wrapped" -- you can't see the edges of panels of fabric that make up the main compartments. This cuts down on the possibility that the edges of the panel will stretch and pull apart the cloth weave. Visible "zigzagged" edges usually indicate lower-quality construction.

  Standard buckles, quick releases/snaps and pin & rings pay off. Some expensive packs use proprietary hardware. Once broken, one has to order the special piece or rip out, replace and reattach/sew both the male and female ends (female ends are usually sewn secure to the bag or strap, but it is the male "fingers" that often break). Not only that, but making "field fixes" becomes less practical because a broken end can't be mated with a standard one "borrowed" from somewhere else (like a spare lashing strap) or from someone else's pack.

- **Weight less than 6 pounds (preferably about 4 lbs).** Generally, the heavier your load the more substantial your pack will need to be and along with that usually comes more weight. One advantage of internal frames is generally lower weight for the same space. Another is that more equipment is "protected".

- **Rain (Pack) cover and weather resistant fabric.** The pack fabric should have some kind of coating to make the bag moisture resistant. However, few are totally waterproof, at least not at the seams and compartment openings, so a rain cover is a necessity. They cost $15-$35. Further, the best assurance of dry food, clothes and sleeping bag is to pack them in Ziplock or "goose necked" plastic bags. The combination of properly fitted rain cover, water resistant fabric, and waterproof packaging provides good assurance against moisture.

- **And *VERY LAST*, which kind of pack you consider "cool" or "with it" this year.** So, what will you pay for such a pack? $75 - $175. You can pay a lot more but it isn't necessary for normal backpacking activity. The more serious you are the easier it is to justify an elite pack. External frames packs tend to be cheaper than internal frames because of the extensive sewing and reinforcement necessary for internal frames to carry the same volume and weight. At the lower-priced end of this range are some Camptrails and Peak 1 (Coleman's upscale line) packs. In the intermediate portion you will find Cabelas, JanSports, Kelty, and Lowe. Gregory, North Face and some Lowe's are examples of premier packs but also command a premier price, probably too premier (even on sale) for all but the most serious backpackers. Because styles change from year-to-year, catalogs like Campmor often have special prices on last year models (http://www.campmor.com/ -- 1-800-226-7667). That could be the way to get a pretty good pack at a reasonable price. If you stick to the specifications above, you should be able to find a serviceable pack at a reasonable price.