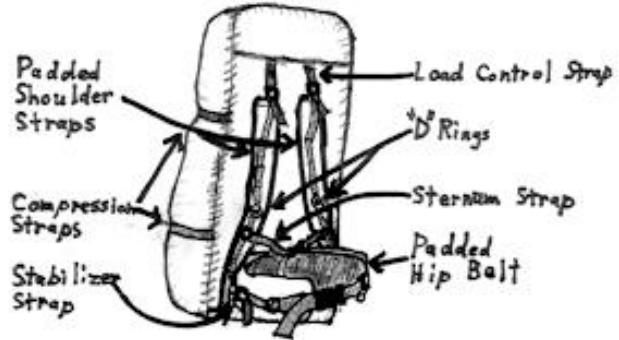


Straps for Comfort and Control of Your Pack

One of the biggest advances in pack technology has been the addition of helpful functional straps.

- **Padded Shoulder Straps** go from the pack just behind/below the top of the shoulder, over the shoulder, and back down to the pack somewhere near the hip belt (bottom). When scouts experience sore shoulders it is often because too much weight is being carried by the shoulders -- the shoulder straps are lifting the weight off the hip belt. Two remedies are (1) loosening the shoulder straps, and (2) changing the position where the straps attach to the pack. If loosening the straps causes the pack to "fall away off the back" and the straps attach to the pack well below your shoulders, the pack (or adjustment) may be too short for your torso length and the shoulder straps could be moved up on the pack (or some allow the hip belt to be moved down). If it "falls away" and the straps attach above your shoulders, you may need to move them down (move the hip belt up) on the pack. The shoulder straps should attach to the pack just below shoulder level. Another potential remedy for the "falling away" problem is to tighten the load control straps, if the pack has them. If problems persist and you are out of adjustments, a different pack may be necessary.
- **Sternum Strap** goes from one shoulder strap to the other across the chest. Not all packs have this strap, but it is one that may be a near necessity. Sternum strap retrofit kits are available and a lashing strap with a quick release buckle from one shoulder strap to the other is a potential in-the-field substitute. This strap, when pulled tight, relieves the pressure of the shoulder straps on the arms and distributes the pressure across the chest. When scouts experience numbness in their arms, tightening the sternum strap can often relieve it.
- **Padded Hip Belt** attaches to the bottom of the pack and goes around the waist. *The weight of the pack should rest on your hips, not your shoulders.* This requires that the hip belt be pulled fairly tight and that the shoulder straps do not lift the pack. You should be able to slide at least two fingers under the top of the shoulder straps. The shoulder straps should mostly just keep the pack from falling backwards off of the back.
- **Stabilizer Straps** go from the sides of the hip belt to the pack on internal frames (and some external frames). They are needed because the "block" of padding at the bottom of the pack rests on the hips just above the tailbone. It also provides a nice fulcrum for the pack to rock on as you walk, which causes instability. By tightening these straps, the pack is restricted from side-to-side motion.
- **Load Control Straps** extend from shoulder straps just in front of the shoulder to the top of the pack. Not all packs have these. When pulled tight, they pull the pack weight in close to the shoulders. When loosened, they allow the pack to "fall off the back". These are useful features on steep and/or rocky climbs. Tightening them while going uphill brings the weight in closer so you don't need to bend over quite as much to maintain your balance. Going downhill, you may want the weight to be off the back (straps loosened), so that if you stumble, you fall backward against the hill rather than forward down the hill.
- **Compression Straps** generally go horizontally around the main compartment of external frame packs from the edges of the pack near the frame, or the frame itself. They serve two purposes. First, if you have a "front-loading" pack with a zipper flap opening [like the traditional "book bag" pack], they relieve stress off the zipper, so it is very important that you snug them. Some internal frame "rucksacks" and "daypacks" also are front-loading. Especially with heavy firm loads, zippers can rupture and spill the guts of your pack. Second, the straps keep the contents from shifting and help organize the weight. Without compression straps, the contents of a large compartment will be loose and always settle to the bottom (yet we usually want weight high and close to the shoulders). The compression straps constrict the compartment's diameter, forcing the contents to stay higher. Think of it like squeezing the middle of a tube of toothpaste to get contents out the top. Large compartment top-loading internal frames are very analogous to the toothpaste tube example. Internal frames may have zigzag compression straps (or elasticized "bungees") on the two sides or across the front. You will usually only find the zigzag straps on climbing or "small contour" packs because they are just where the external pockets usually are. Their purpose is also to squeeze up and secure the contents. Some internal packs already have tall narrow profiles, so squeezing up the contents is not as crucial, but holding the contents steady is still important. They



may have vertical compression straps running up and down almost the length of the pack. These straps relieve the pressure off the lower (sleeping bag) compartment zipper, secure the top cover, and compress the contents down to make the pack more stable. They sometimes are left long at the bottom so that they can double as lashing straps for securing things external to the pack.

- **Load Lifting Straps** (not shown in illustration) are appearing on higher end internal (and a few external) frame packs to keep them from sagging and close to the torso. They attach to the bottom of the shoulder strap and to the bottom/side of the pack and are designed to lift and snug the lower part of the pack into the lumbar area of the back. This is not just a shoulder strap length adjustment as on many packs but specifically designed for this function.
- **Loosening Straps in Unsure Footing** allows you to jettison the pack if you falter. Your pack can be shed quickly, if the hip belt and sternum strap buckles are disconnected, by simply lowering/relieving your shoulders. This is something should be done for walking on logs across streams or rivers.