

BACKPACK BASICS PART 1 – KEEPING THE WEIGHT DOWN

download/update at kurtelieson.com – last updated 2010

READ BOTH PAGES BEFORE YOU BUY A BACKPACK

COMPONENTS OF PACK WEIGHT		
item	ideal	actual
Pack	4	4
Tent	3	4
Sleeping Bag (& liner)	3	3½
Pad	1	1
FOUNDATION WT	11	12½
Share of Crew Gear	2	2½
Light Personal Gear	3	
Clothing	3-5	
BASE WEIGHT	19	
Water in Quart Canteen	2	
Water in 2 Gal. Waterbag	0	
Food (3 days x 2 lbs/day)	6	
TOTAL WEIGHT	27	

Backpack Weight. It is well worth your time to study and understand this chart. The ideal column shows about what you should be aiming for. The actual column is what my oldest son typically carried when he was 14 years old.

A good rule of thumb is that 1/6 of your body weight is an ideal pack weight, and 1/4 of your body weight is the max unless you are pretty experienced. If a boy weighs 90 pounds, 1/6 of his body weight is only a 15 pound pack, which is considered very light. A fully loaded 25 pound pack is considered a good weight for 2 or 3 days backpacking. At 35 pounds you should start justifying the weight to yourself. I often hike with 45 pounds total weight, but I have an external frame pack, lots of experience working up to that weight, and I often carry most of the crew gear for a group of young scouts.

You should also understand that a 12 year old boy cannot usually carry much. When my oldest son was barely 12, we went on a backpacking trip

2 miles each way. Carrying a 20-25 pound pack, he was physically exhausted and ready to quit by the time we were halfway there. But 18 months later and four inches taller, we went on a three day trip of 2 + 4 + 4 miles over much rougher terrain, and I was slower than him. So inexperienced 12 year olds can pack in to camp overnight, but they should not be expected to go very far, and certainly not to carry very much.

Foundation Weight is what I call the gear you have to carry just to get out the door. These few items will by themselves be a third to half of the weight you carry, so it is especially important to keep their weight down. And the only chance you will ever have to control that weight is the day you buy your gear.

Comments about selecting specific items other than backpacks are in my [Camping Gear Basics](#). The point here is simply to emphasize the importance of weight and to know what is a reasonable and realistic target.

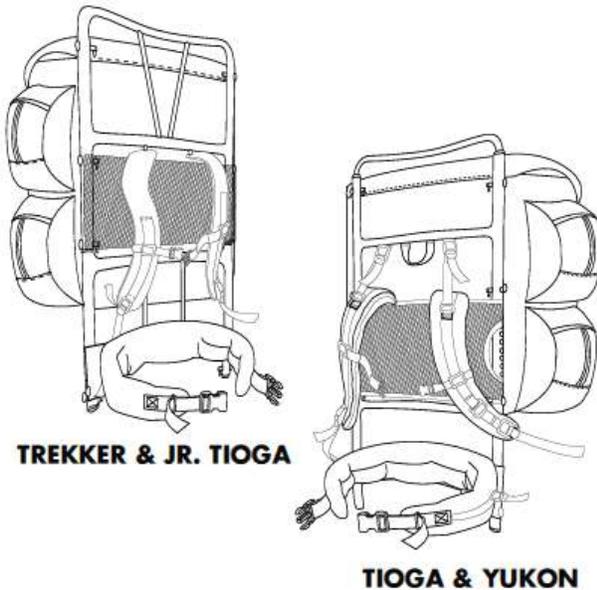
Remainder of Base Weight. Notice that your other “camping gear” can weigh very little. If you look at my [Sample Backpacking Gear Checklist](#), you will see just how light most items are.

The thing I find myself having to watch carefully, trip after trip, is the weight of my clothing. Bluejeans are heavy (and cold when wet). Once you walk out the door, you will be stuck with this weight for the entire trip.

Food and Water. It is easy to keep food down to 2-2½ pounds per day, and it is hard to get it much lower. See my [Sample Backpacking Menu](#) for details.

You typically need about a gallon of water per day at 8 lbs/gallon. So to keep this element of pack weight down, camp near water. This weight will vary during the course of each trip.

BACKPACK BASICS PART 2 – CARRYING THE WEIGHT



External vs. Internal Frame Packs. The two backpacks pictured above are traditional or external frame packs. External frames tend to be cheaper, stay cooler on your back, and carry the same weight more easily. You just have to be careful about the shoulder straps. If you are reading this because you don't know what you are doing, get your son an external frame pack with good shoulder straps for \$75-\$100 from Jansport, Kelty or Camp Trails.

The reason many people prefer internal frame packs is that they snug right up against your back. This makes them much more stable when leaving well established trails to ski, rock climb, etc with your pack still on. I do not do that (nor do I take scouts to do that, and certainly not younger scouts), so I still use an external frame. But most adults buy internal frame packs.

Backpack Parts. A backpack has three functional parts: a bag, a frame, and a suspension system. The suspension system consists of a padded hipbelt and shoulder straps. If the shoulder straps are good, then chances are that the rest of the pack is just fine. If the hipbelt is just a piece of webbing and is not padded, it frankly will not work.

Shoulder Straps. On the backpack on the left (bad) the shoulder straps are simply attached to the upper crossbar. Cinching the shoulder straps tight will pull the backpack in closer to the shoulders, but it will never change the distance between the hipbelt and the top of the shoulder strap.

On the backpack on the right (good) the straps still have a piece of webbing that attaches to the upper crossbar. And cinching that piece of webbing will likewise pull the backpack in closer to the shoulders to prevent swaying. But notice that the shoulder strap itself bends back down and attaches to the lower crossbar well below the shoulders. That is the difference. Cinching these shoulder straps will shorten the straps over the shoulders and make the hipbelt ride higher.

Being able to adjust the distance between the top of the shoulder straps and the hipbelt is very important. It allows you to raise the pack up off your hips to rest them and then lower it back down without even breaking stride. It also allows the pack to fit both at the shoulders to prevent sway and just above the hipbones where most of the weight should be resting most of the time.

Wearing the Pack. Inexperienced hikers often wear their backpack too low. The hipbelt should cinch the soft part between the ribs and hips and should rest on top of the hip bones. No one taught me this, but once I got good shoulder straps it just happened naturally. It may look silly with the hipbelt up near my belly button, making my T-shirt poof out below the hipbelt, but it works.

Shakedown Hikes. I have climbed mountain trails where the adults walked the boys into the ground – even older teenagers who were in much better shape – because the adults: (1) had good shoulder straps and were regularly shifting the load around to rest different parts of the body, and (2) had learned to pace themselves. A few shakedown hikes will not significantly improve anyone's physical conditioning, but they can teach these two lessons if you will focus on them during your shakedown hikes.