

BACKPACKER

THE OUTDOORS AT YOUR DOORSTEP®



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Eat better

40 tips for eating healthy and making great meals straight from your backpack!

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Sport-specific nutrition—eating strategies tailored to the demands of your activity—is all the rage these days, and with good reason. Knowing the best foods for your sport lets you turbocharge your engine for peak performance. As a backpacker, you log long days at moderate intensity. You grunt up heart-pounding climbs with 40-pound loads. And you do it at altitude or in marginal weather. These factors create significantly different nutritional dilemmas than running or cycling. Our experts scoured the latest nutrition research and turned it into a comprehensive plan for backpackers. You'll discover the best balance of carbs, protein, and fats for long-distance treks; get clear information about your calorie intake; and find out exactly what to eat for big climbs, high-altitude trails, and cold temps. We'll share their advice for men and women, then boil everything down into the ultimate backpacking menu—complete with delicious recipes.

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Snack for All-Day Energy

Maximize your performance by syncing your meals to your body's daily ups and downs.



The Need

Long-lasting fuel to prevent bonking at mile 5

The Fix

Slow-burning, high-fiber carbs are digested gradually, supplying you with a steady stream of energy. Start the day strong by eating them for breakfast.

The Food

Whole-grain oats, quinoa, or granola with powdered milk or soy milk



The Need

A fast-acting burst of power to propel you up the day's monster climb

The Fix

Load up on simple sugars an hour before you hit the first switchback, giving your muscles a boost of easily accessible glucose.

The Food

A handful of M&Ms or raisins, shot of honey, or packet of energy gel



The Need

A post-hike snack to keep you going until dinner

The Fix

The enzymes that transfer glucose to tired muscles are most active within 30 minutes of a tough workout. Take advantage—and start refueling for tomorrow—by nibbling on fast-burning carbs.

The Food

Pretzels, a handful or two of dried berries



The Need

Power for tomorrow and nutritional TLC for aching muscles

The Fix

Complex carbs top off glycogen stores, protein rebuilds stressed muscles, and antioxidants fight free radicals, so load up on all three every day.

The Food

Brown rice, whole-grain pasta, dried or fresh veggies, beef jerky

You Have Questions | Our Food Experts Have Answers

Should I take a multivitamin on the trail? Don't bother, says Brenda Braaten, a nutritional consultant for the website Pack Light, Eat Right (thru-hiker.com). It's better to get your vitamins from a balanced diet of high-quality protein, fruits, and vegetables (fresh or dried). The exception: Keep taking calcium supplements if you already do. Your body adjusts to having a certain amount of the bone-building mineral and it's best to have a steady stream.



What are the best foods to eat on my rest day? “Your muscles are like a sponge” after days of hard hiking, says Kim Gorman, an exercise physiologist at the University of Colorado-Denver. Refill depleted glycogen stores with whole grains and lean protein. If you can, add fresh fruits and vegetables, lean meats, and dairy products for extra antioxidants, protein, and carbs. And don't neglect your Nalgene—drink up.

There's so much salt in my favorite trail foods. Should I worry? Not unless you have high blood pressure or are already on a salt-restricted diet. In fact, because you're probably sweating buckets, you should be more concerned with getting enough sodium, says Gorman. Aim for the recommended daily allowance of 2,400 mg—and then some.

What am I eating that's making me so gassy? Some of the most energy-packed trail staples will also get you booted from the tent. Foods high in fructose (dried fruit) or fiber (legumes, beans) are common gastro-offenders. Adding them to your diet in the weeks leading up to your trip *may* help—but don't forget the Beano.

Can I eat anything to speed up acclimatization? There's no magic pill for adjusting to the air above 8,000 feet. However, you can boost your chances by “training” your body prior to your trip. Starting a few weeks out, drink an extra glass of water per day; this prepares your system for maximum hydration. Stock up on carbs (which help transport oxygen to your tissues) with extra fruit or rice at meals. Once you're elevated, stay hydrated by avoiding alcohol and sipping water often. (Hint: Your pee should be pale yellow or lighter.)

You Have Questions | Our Food Experts Have Answers continued...

My appetite disappears above 10,000 feet. How can I make sure I'm eating enough? Ironically, during the first few days at altitude your basal metabolic rate cranks up while your appetite simultaneously bottoms out, says sports dietitian Monique Ryan. Translation: You're burning calories faster than ever, but freeze-dried beef stroganoff never looked less appealing. Stay fueled by munching on highly concentrated energy sources (dried fruit, energy bars, and nuts). Fluids containing extra carbs, such as Kool-Aid or sports drinks, are also a great way to cram in calories.

Settle a bet: I say drinking the water we used to cook our pasta is nutritious. My buddy says it's nasty. Who's right? Sorry, guzzling the dregs from the pasta pot may be more LNT, but it doesn't deliver any significant nutrients. That said, water is water—if you like yours on the starchy side, who are we to argue?

Fact or fiction: Fat-loading before a winter trip will keep me warmer. Fiction. Cold temps and heavy gear mean you're burning up to 40 percent more calories than you would doing the same activity in moderate temps, says Melanie Hingle, a registered dietitian at the University of Arizona's Center for Physical Activity and Nutrition. On the trail, increase your fat intake to 45 percent to keep your fires burning, but don't expect any benefit from a deep-fried Twinkie on the way to the trailhead. Bottom line: It's worse to run short on calories than it is to temporarily bump up your fat consumption, but make those calories the healthy fats found in nuts, nut butters, and seeds.

What is a glycemic index, and should I care about it? "It's a measure of how quickly—and how high—your blood sugar rises after eating carbohydrates," says Susan Kleiner, author of *Power Eating*. High glycemic index foods (candy, refined pasta) cause the biggest spike, while low glycemic index foods (whole grains) break down slowly for sustained energy. Hikers want both—whole grains for lasting power and simple sugars for boosts.

My joints ache after long hikes. Are there any foods that prevent the pain?

Eat your omega-3s, says Braaten. The fatty acids in fish and olive oil not only prevent heart disease, they also have an anti-inflammatory effect. Pop some antioxidant-packed dried tart cherries too. They inhibit the enzymes that cause inflammation.

Sports drinks: Which one's best for me? Look for a powder or tablet with a carbohydrate concentration of 6 to 8 percent (our favorites include NUUN and GU₂O). A drink with a small amount of protein may boost performance but could also upset your stomach. In hot weather, opt for the extra sodium of a formula like that in Gatorade Endurance to replace what you're pumping out.

Balance Your Backcountry Diet

Follow these 5 easy principles to achieve the perfect mix of strength, stamina, and speed.



Fuel with fat. Backpacking is about sustained output over several days, says Leslie Bonci, director of sports medicine nutrition at the University of Pittsburgh Medical Center and coauthor of *Total Fitness for Women*. It's not a high-intensity sprint. To get the most energy for multiple long-distance days, you want to fire your engine with healthy unsaturated fats, the kind found in nuts and fish. Fortunately, these foods happen to be the most concentrated (read: easiest to pack) source of calories. On the trail, make them 30 to 40 percent of your diet.

Sustain with complex carbs. There's a reason marathoners like to eat a heaping plate of whole-wheat spaghetti the night before a race. High-fiber, complex carbohydrates such as those found in whole-grain pasta and brown rice are broken down slowly in your stomach, keeping blood sugar steady for sustained power. Make them about 50 percent of your trail diet.

Get a boost from simple sugars. A backcountry trip isn't always a steady plod. For bursts of intensity—like a steep climb—you need simple carbs. The sugars in

foods such as chocolate and raisins are digested quickly, causing a spike in blood sugar and a flood of energy to your muscles. For best results, scarf a handful or two of something sweet about an hour before the hill gets nasty.

Recover with protein. Skimp on this muscle-builder on the trail, and your body starts burning lean muscle mass for fuel. "If that happens," says Bonci, "you end up fatiguing a lot more quickly, which can increase the risk of injury." Make protein 20 percent of your backcountry diet, and you'll be repairing muscles you've spent the day breaking down.

Fight free radicals. The triple whammy of strenuous exercise, UV light, and high elevation subjects you to cell-damaging free radicals, which increase your risk of serious health problems such as heart disease and cancer, says Dr. Wayne Askew, director of the Division of Nutrition at the University of Utah. On-trail prevention is the best medicine: Repair stressed cells with the antioxidant vitamins E and C, plus beta-carotene.

The 10 Best Backpacking Foods

Trail-savvy nutritionist Stacy Beeson picks the healthiest hiking foods and tells you how to get them from pantry to pack.

1 Wild salmon

Bite into salmon and you get a mouthful of muscle-repairing protein and omega-3 fatty acids, which temper inflammation in sore muscles.

» The trail version

Vacuum-sealed, ready-to-eat wild salmon is lightweight, packed with the same nutrients as fresh salmon, and delicious with some cheese on a bagel or flaked into pasta. One 3.5-ounce pouch costs \$5; sockeye is \$6, seabear.com

2 Almonds

Rich in heart-healthy fats, these meaty nuts contain six grams of protein per ounce and three grams of fiber, which helps control blood sugar. They're also full of muscle-relaxing magnesium and bone-building calcium. And they come packaged in a vitamin E husk, which amps up the immune system.

» The trail version

Eat them while walking for an instant protein boost, or snack on them in camp to repair trail-weary muscles and refill your calcium stores. Like your nuts with fruit? Try Oskri's blueberry almond organic granola (\$7 per pound, oskri.com); the magnesium in the blueberries also helps ease muscle cramping.

3 Tomatoes

These scarlet beauties are a good source of vitamin C, which enhances absorption of iron and helps rebuild connective tissue you tear down on the trail.



» The trail version

Ounce for ounce, sundried tomatoes pack up to 12 times the nutrient wallop of fresh tomatoes, and they're a fraction of the weight. Add them, with a bit of extra water, to a couscous lunch, or sauté them with garlic for a tangy rice or pasta dish. You'll save money by ordering in bulk with the five-pound bag (\$27) at gourmetstore.com.

4 Olive oil

This Mediterranean staple is loaded with cell-protecting antioxidants and good fats that provide long-burning energy. Olive oil also acts as an anti-inflammatory, soothing sore muscles and joints.

» The trail version

At home, roast different kinds of nuts in olive oil for a richer, more satisfying gorp. It adds flavor and increases the caloric punch without putting more weight in your pack.

5 Spinach

Full of calcium and vitamin K, spinach is key to bone-building. It also provides folic acid, important for women in child-bearing years, and quercetin, a compound that fights inflammation in sore muscles, along with healthy doses of vitamins A and C, magnesium, and iron.

» The trail version

Try Provident Pantry freeze-dried spinach. It comes in a #10 can (0.80 gallon), but you can rebag it without spoilage. \$15, beprepared.com





6 Blueberries

They boost your memory and help keep you mentally sharp for moments when you have to face tough decisions. They're also full of antioxidants that act as anti-inflammatories, which—once again—are important for soothing sore muscles.

» The trail version

Try dried wild Maine blueberries, 5-ounce bag for \$7, mainemunchies.com.

7 Red beans

Each 4-ounce serving is loaded with three to four times more cholesterol-lowering fiber than a slice of whole wheat toast. The benefit: You'll feel full longer and reduce the risk of bonking. Kidney beans are also packed with anti-inflammatory antioxidants, they're loaded with folic acid, and they're a great source of low-fat protein, about 15 grams per cup.

» The trail version

Pack some Tabasco to fire up the Louisiana Red Beans and Rice dinner from Backpacker's Pantry (\$4, backpackerspantry.com). When eaten together, the rice and beans offer a complete protein, which is exactly what you need on day 10 (and 1, and 2, and...).

8 Whole-grain oats

We all know this variety of oats packs a lot of slow-burning complex

carbs, but its secret benefit is beta-glucan. This soluble fiber boosts the immune system—important to fighting germs on the trail—and lowers cholesterol and the risk of heart disease. It also packs a muscle-repairing protein punch: 6 grams per cooked cupful.

» The trail version

Spoon up Mary Jane's Farm Organic Outrageous Outback Oatmeal by itself. Or make the breakfast we love on big-mountain days by mixing this instant, soymilk-enriched whole grain with your favorite whole-wheat pancake mix. The superman version: Make two giant blueberry oatmeal cakes, let them cool, spread with cashew butter and honey, and later enjoy a sandwich you'll never forget. \$5, maryjanesfarm.com.

9 Ground flaxseed

Packed with anti-inflammatory omega-3 fatty acids, ground flaxseed wards off the cell damage that comes with hard exercise. It also helps lower cholesterol and contains phytoestrogens that may lower cancer risk, both benefits that add hiking years to your life. Stir a couple of tablespoons into oatmeal or sprinkle on vegetables.

» The trail version

Try Nature's Path FlaxPlus, an organic instant oatmeal. 14-ounce bag for \$4, grocery stores or worldpantry.com

10 Milk

One cup has almost half of your daily requirement of calcium—great for reloading stressed bones on the trail. It also boosts your immune system and is a good source of protein, zinc, and vitamin B, all essential for energy.

» The trail version

Powdered milk, available in any grocery. One 8-ounce glass offers 30 percent of the RDA of calcium, plus vitamins D and K, both essential for bone health.

A Day of Eating Healthy

BREAKFAST

- » ½ cup whole oats, ¼ cup powdered skim milk, water
- » 1 teaspoon brown sugar
- » 2 tablespoons pecans
- » 2 tablespoons dried blueberries
- » 1 whole-wheat bagel
- » 2 tablespoons almond butter
- » 8 to 12 ounces water
- » 8 ounces coffee or tea

SNACK #1

- » 1 cup Kashi-Pumpkin Seed Trail Mix (see recipe)
- » 1 whole-wheat fig bar
- » 8 to 12 ounces water

SNACK #2

- » 1 energy bar
- » ¼ cup dried apricots
- » 8 to 12 ounces water or sports drink

LUNCH

- » 1 whole-wheat tortilla
- » ¼ cup rehydrated instant refried beans
- » 3 tablespoons guacamole (pack an avocado in a plastic cup, mash, add Tabasco)
- » 1 slice cheddar cheese
- » 1 small snack-pack of peaches in their own juice
- » 1 ounce dark chocolate (about three small fingers from knuckles to tip)
- » 8 ounces sports drink and 8 ounces water

SNACK #3

- » 1 Blueberry-Banana Peanut Butter Bar (see recipe)
- » ¼ cup dried cranberries
- » 2 tablespoons soy nuts
- » 8 ounces sports drink

SNACK #4

- » ¼ cup dried hummus mix and water
- » 6 whole-wheat crackers (Barbara's or Kashi TLC)
- » 8 baby carrots
- » 2 tablespoons almonds
- » 1 packet Carnation Instant Breakfast, ⅓ cup powdered skim milk, water
- » 8 to 12 ounces water

DINNER

- » 1 cup Tuna Pizzazz (see recipe)
- » ½ cup Vanilla Pudding Parfait (see recipe)
- » 12 ounces tea

Total nutrition

3,976 calories, 138g protein (14%), 589g carbs (58%), 119g fat (28%)

The Perfect Menu

4 power-packed recipes that will keep you walking, not flagging

You can do better than candy bars and mac-n-cheese in the backcountry. This sample daily menu, designed by Stacy Beeson, a wellness dietitian at St. Luke's Hospital in Boise, Idaho, delivers the perfect balance of carbs, proteins, and fats for multiday adventures.



Kashi-Pumpkin Seed Trail Mix

- 2 cups Kashi Go Lean Crunch
- 1 cup dried cherries
- ½ cup almonds
- ½ cup pumpkin seeds
- ½ cup corn flax chips
- ¼ cup peanut M&Ms
- 2 tablespoons mini chocolate chips

At home Mix ingredients together. Makes five 1-cup servings.

The Perfect Menu continued...



Blueberry-Banana Peanut Butter Bars

from *A Fork in the Trail*, by Laurie Ann March
(Wilderness Press, 2008)

- 1/3 cup honey
- 1/4 cup brown sugar
- 1/4 cup peanut butter
- 2 cups high-energy cereal made of strong flakes, crushed
- 1/2 cup dried blueberries
- 1/3 cup slivered almonds
- 1/4 cup dried banana chips
- 1/3 cup white chocolate chips

At home Break the banana chips into small pieces and set aside. Heat the honey and brown sugar in a large pot and simmer for 1 minute. (Boiling too long will make the bars brittle.) Remove the pan from the heat and stir in the peanut butter. Add the remaining ingredients and combine well.

Coat the bottom and sides of an 8-inch square pan with vegetable oil. Scoop the mixture into the pan and pack down evenly. Freeze for 30 minutes. Transfer the pan contents to a cutting board. Allow to return to room temperature and then cut into 10 bars. Wrap bars in waxed paper and store in zip-top bags. The bars will keep in the freezer for three months.



Tuna Pizzazz

- 1/2 cup dry instant brown rice
- 1 tuna pouch (7 ounces)
- 1/2 cup sundried tomatoes
- 1 tablespoon Knorr Garlic and Herb powdered sauce mix
- 1/4 cup powdered skim milk
- 1 slice cheddar cheese

At camp Cook 1/2 cup rice in 1 cup boiling water. Reconstitute tomatoes in water. Once rice is cooked, turn flame down and stir in garlic and herb mix, milk, and 1/2 cup water. Then mix in tomatoes, tuna, cheese, and ground pepper. Makes 2 cups.



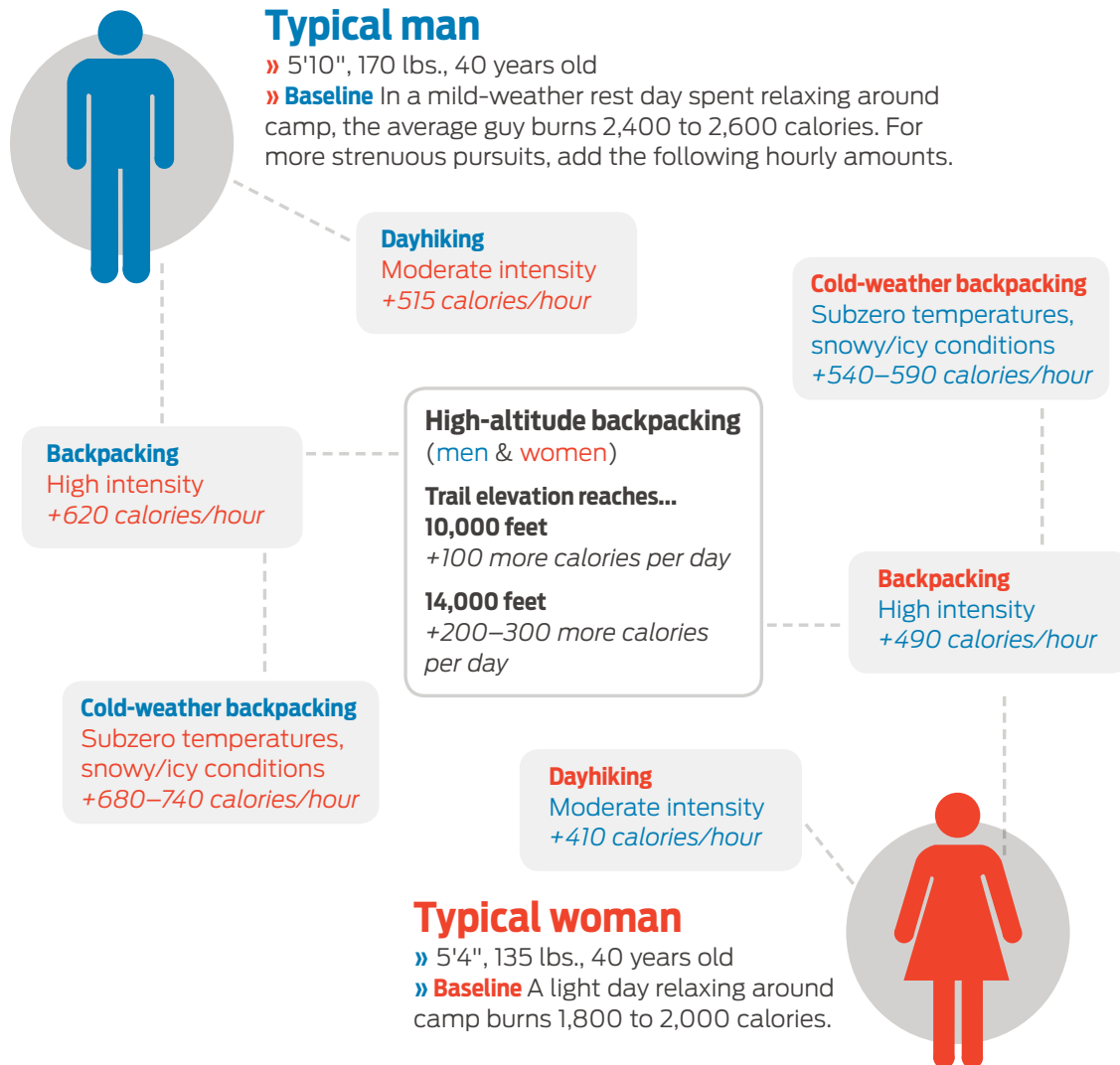
Vanilla Pudding Parfait

- 1/2 packet vanilla pudding mix
- 3 tablespoons powdered skim milk
- 6 to 8 ounces water
- 2 tablespoons granola or Grape Nuts

At camp Add vanilla, dried milk, and water to bowl and mix well. Add Grape Nuts or granola, let soak in, and eat. Makes heaping half-cup.

The Burning Curve...

Your caloric needs on the trail depend on everything from your age to the altitude to the air temperature. It's far from an exact science, but this chart can help estimate your daily requirements.



...and A Radical Deviation



Andrew Skurka is no nutritionist—but he knows a thing or two about backpacking food. While traveling the 6,875-mile Great Western Loop last year, the über-hiker estimat-

ed he torched two to three times more calories per day than the average couch potato. What's it take to eat like Skurka? Here, he breaks it down.

Profile

- » 26 years old
- » 6'0", 170 lbs. (start)
- » 155 lbs. (finish)
- » 15-pound pack
- » 35-mile, 15-hour days
- » 208 days total; 8 days off
- » On his appetite when thru-hiking: "Ten days in, my metabolism just goes out of control. I become obsessed with food."

Trip

Colorado section

- » 10,000-plus feet average elevation along the route
- » Rugged, steep terrain
- » Daytime temps in the 50–60 °F range = 7,000 calories burned/day

New Mexico section

- » 5,000–9,000 feet average elevation
- » Mellow terrain
- » Daytime temps in the high 50–60 °F range = 5,500 calories burned/day

Overall

- » 4,500–5,000 calories eaten per day = 15–20 pounds of weight lost over the entire trip