Backcountry Nutrition
How to create meals that keep you happy and healthy in the woods
What’s on the plate?
I never thought I’d crave textured vegetable protein.
I don’t know what this is, but I can assure you that the bottom is burned and tastes like bad coffee.
Backcountry Nutrition is Important

• **FOOD = ENERGY**
  • Nutrition content in food is responsible for muscle recovery
  • Vitamin and mineral content in food mitigates future illness

• **FOOD = FUN**
  • Variety is the spice of life, especially when crew life or a solo excursion becomes monotonous
  • Properly planned meals are something everyone can look forward to in the backcountry
# Factors that affect meal-planning

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INDIVIDUAL vs. GROUP</strong></td>
<td>Even if you’re hiking in a group, you may still want to pack some or all individual meals</td>
</tr>
<tr>
<td><strong>WEATHER CONDITIONS</strong></td>
<td>Different weather/environmental conditions merit greater caloric and/or water intake</td>
</tr>
<tr>
<td><strong>DURABILITY</strong></td>
<td>How food lasts</td>
</tr>
<tr>
<td><strong>PACKING METHOD</strong></td>
<td>Depending on who is hauling your gear (self vs. pack string vs. ATV), you’ll need to adjust your food packaging</td>
</tr>
<tr>
<td><strong>TRIP LENGTH</strong></td>
<td>Day trips, multiday trips or extended spike camping</td>
</tr>
<tr>
<td><strong>ACTIVITY LEVEL</strong></td>
<td>The intensity, type, and duration of activity level greatly affects your caloric and macronutrient needs</td>
</tr>
<tr>
<td><strong>KITCHEN SETUP</strong></td>
<td>Type of stove, availability of water, cooking implements, food storage and kitchen shelter dictate the amount of time spent cooking and cooking method</td>
</tr>
<tr>
<td><strong>PREFERENCES</strong></td>
<td>Your own preferences for food types and caloric content shouldn’t be overlooked</td>
</tr>
</tbody>
</table>
What do I need to eat?

Though it may be tempting to bring lots of preferred high calorie food, it's important that your pack and food plans are manageable in the backcountry, and that you're getting enough macronutrients to support your muscle recovery.
Macronutrients are the nutrients your body needs to provide calories or energy.

Nutrients are what your body needs for growth, metabolism, and all normal bodily functions. Since “macro” means large, macronutrients are the nutrients that your body needs in large quantities.
Do ultralight backpackers chug olive oil?

Can I still eat Cheetoes?

I’m going to pack 30 Cliff bars...
BALANCED MEALS
for the trail
We need 46 – 56 grams a day, or 10 – 35% of daily caloric intake
PROtein Tips

- Add protein powder, hemp hearts or chia seeds to your morning oatmeal
- Eat protein-rich snacks like nuts, protein bars and jerky for sustained energy
- Pair your protein with a carbohydrate to make a “complete” protein
- Pair your protein with a carbohydrate to make a “complete” protein
- For vegetarians and vegans, ensure that you’re getting enough protein through supplementing if needed
MACRO SPOTLIGHT: 
FAT
FAT TIPS:

- Pack plenty of oil or butter to cook with, and be generous with your oil portions

- Look for rock-hard, green avocados for multi-day trips; try mixing avocado in tuna or salmon for a snack

- Use powdered yogurt instead of powdered milk for granola and yogurt breakfasts

- Add coconut flakes to breakfasts or desserts, or eat the larger flakes as a snack

- Eat a higher fat content during cold weather for energy efficiency
MACRO SPOTLIGHT:

CARBS

30 – 60 grams or 120 – 240 calories per hour
Where are the fruits and vegetables?

Vegetables don’t provide much *macronutrient* content, but they do provide essential *vitamins* and *minerals*.

You don’t need to factor your vegetables into your macro content, but you do need to include them in your planning.

You can purchase dehydrated vegetables at specialty food stores or online.

Choose fresh vegetables that don’t bruise easily and keep for a long time unrefrigerated, such as:

- Carrots
- Cabbage
- Onions
- Garlic
- Broccoli
- Bell Peppers
- Celery
- Apples
- Oranges
- Kale
- Radishes
- Cauliflower
Tips for backpacking with *fresh produce*:

- Buy 'em ripe and bruise free. They'll keep longer in your pack and give you more time. Spotty and blemished produce will only go bad quicker after a little tossing around in your pack.

- Don't store your produce in sealed plastic bags. Ripening produce releases gas that gets trapped in the bag, accelerating decomposition.

- Freeze-dried or dehydrated produce can retain nearly the original levels vitamins and minerals, and weighs much much less than ripe produce.

- Fruit and vegetable powders and multi-vitamins are great ultralight options for desperate vitamin and minerals.

- Plan your meals to include your most delicate produce in the early days, and finish out your trip with potatoes and onions.
You and the Crew

• If you’re meal planning for a crew or as a crew, it’s important to discuss your food preferences before making a meal plan.

• For folks with food allergies or dietary restrictions, ingredients can be either excluded or separated before repackaging food.

• If you are a group leader responsible for meal planning for a group, ask for help from members with dietary restrictions to ensure that you are making the appropriate considerations.
How much food do I need?
### Calorie Calculator

<table>
<thead>
<tr>
<th>Activity Level</th>
<th>Calories Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely Active</td>
<td>25 – 30</td>
</tr>
<tr>
<td>Very Active</td>
<td>21 – 25</td>
</tr>
<tr>
<td>Moderately Active</td>
<td>16 – 20</td>
</tr>
<tr>
<td>Less Active (Rest)</td>
<td>13.5 - 15</td>
</tr>
</tbody>
</table>

\[
\text{RANGE OF CALORIES USED PER DAY} = \text{BODY WEIGHT (lbs)} \times \text{Calories Required}
\]
For example,

- If you are 150 pounds and you are on a “cut and run” crew (considered very active), then you need...

\[ 21 \text{ cal} \times 150 \text{ lbs} = 3150 \text{ Calories per day, per person} \]
How do I know how much of each macronutrient I’m getting?
Meal Planning Tips

• **Choose quick-cooking, one-pot meals.** Avoid anything that’s greasy, complicated, or requires frying; such foods make clean-up harder and can attract animals.

• **Buy in bulk whenever possible.** If your grocery store doesn’t have a bulk section, check a natural foods store or buy online (try maryjanesfarm.com or harmonyhousefoods.com).

• **Prep food at home to speed cooking time.** For example, chop the first night’s dinner veggies before you leave and pack them in a zip-top bag.

• **Save pack space and minimize the trash you’ll have to pack out by unwrapping store-bought sauces and mixes and consolidating them in one bag.**

• **Stay organized (and cook faster) by pre-measuring and pre-mixing ingredients.** Pack each meal’s ingredients together in one zip-top bag.
It’s easy to plan for just me, but planning for so many people is hard!
To convert your food plan from an individual one to a group food plan,

1. Assess group food preferences

2. Multiply agreed upon individual food plan by number of people in your group

3. Reconfigure packaging, disposal and kitchen needs
PACKING MEALS for the BACKCOUNTRY

- Repackage bulky items into a resuable plastic or silicone bag
- Double bag liquid items
- If planning for an individual, compile a day’s food in a single large bag for ease of access
- If planning for a group, compile like food items together and keep separated by meal type (breakfast, lunch, dinner, snacks)
- Avoid or double bag sharp food items like uncooked pasta
- Label unidentifiable food bags (salt in the pasta, not sugar)
- Pack all food in a single food bag for easy access and easy camp storage
- Store food in an airtight box or hang in a tree to prevent wildlife from accessing
- Ensure that all of your food items fit into a bearproof storage container, if camping in bear country
- DO NOT pack glass or cans, even if being packed in by ATV or stock
Food Packaging Considerations

Opinion Article: Why Aren't More Backcountry Foods Packaged Sustainably? | Outside Online

Ways to reduce waste:

• Reuse Plastic Bags
• Buy bulk goods (without packaging) and package at home with reusable bags
• Purchase foods that come in sustainable packaging
• Edible plant diet
Speaking of packaging, that’s a wrap!