

12 Week Pre-Expedition Nutrition Guide

by Global Sports Dietitians

You can contact Global Sports Dietitians for more nutrition tips, or have them design a custom nutrition program to fit your needs and goals, nutrition@visionquestjourneys.com

In order to develop the strength and endurance that is required for an expedition, it is essential that you eat adequate calories coming from appropriate food sources to support the activity you are asking of your body. Whether you are beginning a fitness program or simply adjusting your current activity to prepare for an expedition, these guidelines will apply. We will simplify nutrition recommendations into two areas. The first will be targeted to training meals, which will be the meals and snacks you eat throughout the day. The second area will be focused on fueling, which will be specific to before, during, and after your training and/or activity.

Weeks 1-3: Training Meals

Your meals should have 5 primary characteristics:

1. Approximately ½ of your plate should be made up of complex carbohydrates (i.e. whole grain bread, brown, wild, or basmati rice, and pasta made with whole grains, potatoes).
2. A lean source of protein (chicken, turkey, fish, lean beef, eggs, soy, legumes, low-fat dairy) should be included in every meal and snack; ideally these are smaller portions and eaten frequently throughout the day. A portion size should be approximately 3-4 cooked oz or 1 cup for a smaller athlete and 5-6 cooked oz or 2 cups for a larger athlete (cooked oz refer to animal sources and cups refer to plant sources of protein).
3. Sources of healthy fats (olive oil, canola oil, avocados, seeds, nuts, natural peanut butter, fish, margarine without trans fats etc.) should be part of every meal, substituting some of the unhealthier fats (butter, sour cream, regular margarine, cream sauces, deep fried foods etc.).
4. Color from fruits and vegetables should be added to every meal; the more colorful the better (i.e. add berries to cereal, baby carrots and spinach leaves to sandwich, broccoli to a potato).
5. Drink 1-2 cups of fluid with every meal. Water, milk, juice, an herbal tea all are excellent choices for hydrating fluids. Soda, coffee, caffeinated teas (Lipton, green, black), and energy drinks can have a dehydrating effect on your body- be sure to drink an equal amount of water with these fluids. A good goal is 5-6 cups of water per day in addition to other hydrating fluids.

Fueling

Before

The ingredients of the meal you eat prior to a workout can vary dramatically from one person to the next, although some general rules apply. Eating before training helps to:

- prevent feelings of light-headedness
- minimize fatigue by fueling muscles
- increase ability to concentrate by fueling the brain
- prevent feelings of hunger

Pre-training meals should be eaten 2-3 hours before the workout and consist of easily digestible, familiar foods. These meals should be high in carbohydrate, moderate in protein, and low in fat. Before a strenuous strength training workout, it is important to include a small amount of protein in your meal to stimulate muscle growth.

During

When activity lasts longer than 60 to 90 minutes, it is ideal to fuel your body with enough carbohydrate to maintain exercise intensity and brain function. Protein can be included during a long duration, moderate to high intensity activity lasting greater than 2 hours.

* Each individual must determine what foods and fluids work for them.

After

Eating after an intense workout it is very important for you to be able to recover quickly, replace lost fuel and fluid, and perform your best at your next training session. This is especially true if your next workout will be less than 8 hours away. Ideally, a recovery snack should be a mixture of



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carbohydrate, protein, fluid, and electrolytes (see Hydration for information on fluid/electrolytes) within 30 minutes of an intense training session to refill muscle stores and stimulate muscle repair and building.

Hydration

Intense exercise is associated with an increase in body temperature and a decrease in body water due to sweat loss, which both can lead to impaired performance and feelings of fatigue. Therefore, starting your workout hydrated is essential to feeling your best during activity. One simple way to check your hydration state is with the color of your urine. Ideally, urine should be clear to pale yellow.

Before

It is most beneficial to begin exercise in a well-hydrated state to minimize the possible dehydration that occurs once activity begins. Many people begin exercising in a poorly hydrated state because they do not drink hydrating fluids regularly throughout the day, with meals, or replace normal fluid losses.

During

When activity lasts longer than 30 minutes, drinking fluid can positively affect how difficult activity feels and your performance. Typically when activity is less than 1 hour, water is adequate to offset losses. When the activity lasts longer than 90 minutes a sport drink with electrolytes and carbohydrate is recommended. Drinking a fluid that is cool and tastes appealing may help active individuals drink more adequately.

After

Fluid and electrolyte replacement after exercise is necessary to make up for any lost during exercise that has not yet been replaced. What's more, our muscle cells must be well-hydrated in order for them to replenish their fuels used during activity. Active individuals should develop their own hydration routine to ensure they never get too thirsty.

Weeks 4-8:

Training Meals

Continue to cook and choose healthy training meals and snacks as mentioned above. Once a week, begin to cook meals you will typically have during your expedition (i.e. dried foods). With a journal, keep track of how differently meals make you feel (i.e. constipation, diarrhea, nausea). In addition, keep track of foods that you like and dislike. Compile a list of your favorites! See below * for freeze-dried food resources/sources.

Fueling

Begin experimenting with snacks to determine which ones you are able to handle during exercise. Choose options that you will have available during your expedition. Consider the environment (i.e. temperature, altitude) of your expedition when you are choosing foods to ensure they will be applicable. Keep track of these foods in your journal also and make a list of foods that you prefer during longer workouts (those that simulate your expedition).

Hydration

On a day you are planning a long hike or activity session, you should perform a weight test on yourself. Prior to activity, weigh yourself with minimal clothing and record your weight. After you have completed your activity, weigh yourself a second time (with the same minimal clothing as the first weight) and record your weight. Calculate how much weight you lost. Be sure to consider the amount of fluid you ingested and your urinary output. For every pound you lost (including ingestion/output) you should drink 3 cups of fluid. This experiment will help with two goals. One is to help you determine the amount of fluid you need to replace after activity. The second is to help you learn how much fluid you need during activity in order for you to pack it with you.

Sample Calculation

Before weight = 150 lbs

After weight = 147 lbs

3 lbs x 3 cups = 9 cups or 72 oz. of fluid

Weeks 9-11:

Training Meals

- Double check that your carbohydrate intake is optimal by increasing the section of your plate from 1/2 to 2/3. This is the time to maximize your carbohydrate stores within your muscles.
- Make certain you are choosing healthy unsaturated fats instead of saturated fats (see Week 1-3 for fat recommendations)



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- Consider taking a vitamin E supplement to provide additional antioxidants to your system. Choose a supplement that has 200-400 IU vitamin E. In addition, always have some color in your meals and snacks to ensure you are receiving plenty of natural antioxidants from whole foods. Here are some foods particularly rich in antioxidants you can easily add to your meals: blueberries, cherries, mangoes, cantaloupe, apricots, spinach, sweet potatoes, carrots, broccoli, cabbage, tomatoes, brussel sprouts, nuts, seeds, flax, olives, and soy.

Fueling

Recovery should be the focus of your training nutrition during this phase when you are participating in long duration activity and simulating your expedition environment as much as possible. Recovery should include the following components:

1. Optimal timing- consume both fuel and fluid within 30 minutes of finishing your activity session
2. Carbohydrates- replace carbohydrates in the muscle that you utilized during your activity
3. Protein- adding protein to a recovery snack or meal helps replace carbohydrate quicker and stimulates the repair process in your muscles
4. Electrolytes and fluid- replace the sodium and fluid lost through sweat, water lost in breath, and diuresis.

Week 12:

Relax and enjoy how good you are feeling now that you have successfully prepared both physically and through proper fueling for your upcoming adventure! Continue to eat healthy training meals and snacks along with adequate hydrating fluids with particular focus on optimal carbohydrate intake in order to load the system before your expedition.