

Fueling for Exercise

Fueling your body with the appropriate food and fluids can help you get the most out of your workout. Certain foods and beverages can make you feel sluggish, while other foods can provide you with the energy you need to sustain your activity. Your needs may depend on the type of activity you are engaging in, the length of time, and level of intensity. For example, if you are doing a light-to-moderate workout that lasts less than an hour, your nutrient needs will be less compared to someone who is fueling up for high intensity exercise lasting more than an hour.



Let's starting by identifying those nutrients that your body needs most to fuel your workout routine:

Carbohydrates: Foods containing carbohydrates/carbs are the body's main source of energy. Carbs also help keep muscles from breaking down. If there aren't enough carbohydrate stores in the body, eventually your body will start using other nutrients for energy, including proteins & fats. This is not a good thing long-term.

There are two main types of carbohydrates: simple/refined & complex/whole. Simple & refined carbs are generally digested more easily, but they often lack fiber and tend to be more processed. These are foods like sugar, corn syrup, white breads/rice/pasta, desserts/sweets, syrup, honey, and dairy. Complex carbs and whole grains include foods like oatmeal, whole wheat bread/pasta, quinoa, and brown rice. These types of carbohydrates take longer to digest but provide other nutrients and fiber for fullness and satisfaction.

Protein: Since protein helps build and repair muscle, it is important to get a moderate amount along with your carbs to fuel your workout.

Below is a quick & basic guideline to follow before and during an intense workout:

3-4 hours before activity	2 hours before activity	1 hour before	During intense activity (>1hr)
<p>Try to eat a complete meal that includes protein, carbs, and fat. Examples:</p> <ul style="list-style-type: none"> • Turkey or tuna sandwich on whole grain bread, side salad, and fruit • Lean protein, serving of grains, and vegetables • Egg omelet, whole grain toast, avocado, & fruit 	<p>Eat a moderate snack containing a combination of carbohydrates and protein.</p> <ul style="list-style-type: none"> • 1 cup Greek yogurt with ¼ cup granola & berries • Peanut butter and jelly on whole grain bread or an English muffin • ½ cup cooked oatmeal with diced banana • Smoothie with protein powder, banana, and mixed berries 	<p>Eat a small, high carb snack that can be digested easily:</p> <ul style="list-style-type: none"> • A serving of fruit: banana, orange, • ½ cup Greek yogurt with berries • Pretzels • Low-fat granola bar • Coffee** (see article on caffeine and exercise) 	<p>30-60 grams of carbohydrates every hour:</p> <ul style="list-style-type: none"> • 8 ounces of fruit juice • 1 large banana • Sports supplements (gels, energy bar, etc.) • A handful of dried fruit • Sports drink

* Avoid fatty/fried foods and very high protein foods before you exercise. These may cause stomach discomfort.

* Make sure to hydrate throughout the day and throughout your workout as needed.

Helpful Resources:

- 1.) **Food as Fuel Before, During, and After Workouts.** American Heart Association Website. <https://www.heart.org/en/healthy-living/healthy-eating/eat-smart/nutrition-basics/food-as-fuel-before-during-and-after-workouts>
- 2.) **Carbohydrates.** American Heart Association Website. <https://www.heart.org/en/healthy-living/healthy-eating/eat-smart/nutrition-basics/carbohydrates>
- 3.) **Timing Your Pre- and Post-Workout Nutrition.** Academy of Nutrition and Dietetics Website. <https://www.eatright.org/fitness/exercise/exercise-nutrition/timing-your-pre-and-post-workout-nutrition>
- 4.) **Caffeine and Exercise.** Academy of Nutrition and Dietetics Website. <https://www.eatright.org/fitness/sports-and-performance/fueling-your-workout/caffeine-and-exercise>
- 5.) **Fueling for Exercise.** National Collegiate Athletic Association. <https://www.ncaa.org/sites/default/files/Fueling%20During%20Exercise%20Fact%20Sheet.pdf>