

Pre & Post Workout Nutrition

How to Fuel Up for Optimal Performance

Exercise Nutrition

Whether you are a competitive athlete or just enjoy working out, what you eat will affect your performance. Proper nutrition can help you train harder, achieve peak performance, delay the onset of fatigue, and aid in your recovery from a workout.

Athletes should consume a variety of nutrient-dense foods and include appropriate amounts of the three calorie-providing nutrients: carbohydrates, protein and fat. Nutrient dense foods provide a wealth of vitamins, minerals, fiber, and other beneficial compounds and contain minimal, if any, added sugar, salt, or solid fats.

Before Exercise

Eating prior to exercise gives you the energy needed to train harder for a longer period of time. Even if you exercise early in the morning, it's best not to exercise on an empty stomach. Everyone tolerates food differently. Customize your pre-workout snack to meet your individual needs.



Carbohydrates are crucial for fueling the body, so the emphasis pre-workout is on carbohydrate-rich foods, such as grains and fruit.

3-4 Hours Before: Mixed Meal

- Well-balanced meal
- Rich in carbohydrates and moderate in protein
- Avoid high fat foods, such as fried foods, which slow digestion
- Examples: Grilled chicken salad, turkey sandwich with fruit, peanut butter and jelly sandwich, eggs and toast, pasta with grilled chicken, or oatmeal with lowfat milk and raisins

1 Hour Before: Snack

- Carbohydrate-rich snack
- Quick-digesting: avoid foods high in fat and fiber which digest slowly and can lead to gastrointestinal distress during exercise
- Small portions
- Examples: half or whole banana, orange, grapes, rice cake with honey, or pretzels

All Day: Hydrate with Water

- Always include water with your pre-workout meal and snack
- Straw or pale yellow colored urine is usually a sign of proper hydration

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During Exercise

Staying hydrated during exercise is crucial. If exercising in a hot or humid environment, or engaging in vigorous physical activity for more than an hour, a source of carbohydrates and electrolytes may be needed to provide additional fuel. Examples include sports drinks, coconut water, diluted fruit juice, energy gels, bananas, and sports bars. Although individual needs vary widely, 3-8 ounces of a carbohydrate beverage every 15-20 minutes for exercise greater than one hour is a good starting point.



Sports drinks and foods, such as energy gels, are not superior to regular foods and beverages. The type of energy source you choose is completely up to you and what your body tolerates.

After Exercise

Foods and beverages consumed after exercise are crucial for replenishing energy stores that were depleted during physical activity – repairing and building muscle, and replacing fluid loss. The body most efficiently uses energy and nutrients from food right after exercise, so it's best to refuel as quickly as possible. Have a snack with a 3:1 carbohydrate-to-protein ratio within 20 minutes after exercise and a mixed meal within the next three hours. 3:1 means that a food or combination of foods should have around 3 grams of carbohydrate for every 1 gram of protein. Why 3:1? Carbohydrates refill energy stores, protein repairs muscle, and the 3:1 ratio is the combination best used by the body.

Snack Within 20 Minutes

3:1 carbohydrate:protein snack, such as:

- Fruit and lowfat milk smoothie
- Half of a turkey sandwich
- Lowfat chocolate milk
- Cheese stick and crackers
- ½ c. plain Greek yogurt + banana



Meal Within 3 Hours

Include carbohydrates & protein in a mixed meal containing:

- Whole grains
- Lean protein
- Fruits - vary the colors
- Vegetables - vary the colors
- Lowfat dairy

Don't Negate Your Hard Work!

An average-sized adult burns about 100 calories per mile walked or run. Energy bars and shakes can easily have more than 200 calories per serving. Remember, just because you are exercising doesn't mean you can eat whatever you want. The bottom line: be mindful of how hard you are exercising and refuel appropriately!

Information adapted from The Academy of Nutrition and Dietetics eatright.org.

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