

## Hydration

Depending on the person, activity and environment, water loss through sweat during exercise varies and is greatest during sustained strenuous exercise in hot weather. The goal is to prevent losing more than 2% of body weight, which can be determined by weighing yourself before and after exercise. Urine color is a good indicator of hydration status and should be pale yellow.

Dehydration can increase strain, cause muscle cramps and impair exercise performance. It is a risk factor for both heat exhaustion and heat stroke, and can be life-threatening in severe cases.

Several hours before intense exercise, drink 2 to 3 cups of water to hydrate and drink 0.5 to 2 cups water every 10 to 15 minutes during exercise depending on sweat loss. After exercise, drink about 2 cups for every pound of weight lost. Electrolytes can be replenished through foods like bananas or salted potatoes.



## Meeting Everyday Calorie Needs

Athletes are capable of amazingly high levels of energy output, but those extra calories should come from wholesome, nutritious foods. Eat just enough to maintain a healthy weight and optimize exercise performance. Banish the excuse to eat "anything" because you are an athlete!

Aside from race day, focus on eating a normal, balanced and nutritious diet:

- A wide variety of fruits and vegetables have flavonoids that counteract exercise-related inflammation and muscle soreness. Convenient sources include fresh-squeezed fruit juices especially orange juice, bananas, apples, blueberries, and watermelon.
- Whole grains provide carbohydrates, fiber and nutrients. Race day is the exception when refined grains like regular pasta are suitable to get energy to the muscles quickly.
- Fish and poultry are sources of lean protein to help support muscle growth.



## Fueling for Endurance Exercise

**Day-to-Day Training Diet:** Focus on consuming nutrient-dense foods and beverages such as vegetables, fruits, whole grains, seafood, beans and peas, and nuts and seeds. Limit intake of sodium, solid fats, added sugars, and refined grains.

**Pre-Exercise:** For endurance exercise lasting longer than an hour, rest and emphasize carbohydrates three days before the event. Three to five hours before the event, eat about 500 to 800 calories of light, low-fiber starch.

**During-Exercise:** The top fuel for high-intensity exercise is carbohydrate that is stored in the muscles and liver. When these reserves drop too low, exercise performance is impaired. To avoid this, consume carbohydrates such as bananas or dried fruits during exercise.

**Post-Exercise:** Post workout, aim for 7 to 10 grams of protein and 30 to 40 grams of carbohydrate to quickly restore glycogen (stored energy) in muscles.

For more information on Sports Health, visit us at [Dole.com](http://Dole.com)

## Do I Need to Eat...

**Supplements? No.** Most people, including athletes, do not need supplements if they eat healthful, balanced diets. Exercise does increase the need for some nutrients including iron, zinc, copper, magnesium, chromium, vitamin B6, and riboflavin, but these are available from foods. Research does not show supplements enhance performance.

**Protein powders? No.** Adequate protein can be met through diet alone, without the use of protein supplements. Increasing protein beyond the recommended level is unlikely to result in additional increases in muscle because there is a limit to the rate at which muscle can grow. Choose seafood, poultry, beans and lentils for lean protein.

**Sports drinks? Not necessarily.** Dole scientists have found bananas are just as effective as sports drinks for fueling exercise and are a natural, less expensive alternative. A banana and water provides hydration and electrolytes athletes need.



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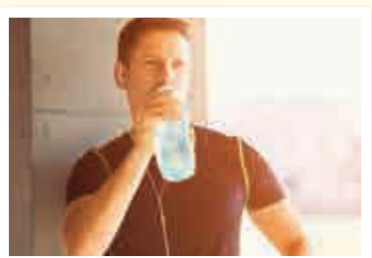
# Top 10 Health Tips For Sports Nutrition

Ten tips for athletes on how to properly fuel for exercise.



## 1 Emphasize a Healthy Diet Pattern

The foundation for sports nutrition starts with a healthy diet pattern. The basic premise is that nutrient needs should be met through healthy whole foods.



## 2 Hydrate with Water

Drink water before, during and after intense exercise to prevent dehydration. In an endurance event drink 0.5 to 2 cups water every 10 to 15 minutes.



## 3 Protein from Food

Adequate protein can be met through food alone without the use of supplements. Most people require about 0.36 grams protein per pound body weight. Fish, poultry, beans, nuts and yogurt are good sources.



## 4 Energize with Carbs

Carbohydrates are the main fuel for working muscles. Dole research shows bananas are a top fuel for exercise. Eat bananas before, during and after exercise as needed for energy. Other healthy carbohydrates include most fresh and dried fruits, whole grains, pasta, and potatoes.



## 5 Keep Fat Intake Moderate

Athletes need the same amount of fat as the general public. To meet the total fat recommendation of 20 to 35 percent of calories, most dietary fats should come from sources of polyunsaturated and monounsaturated fatty acids.



## 6 Maintain Energy Balance

Maintaining your calorie balance over time to achieve and sustain a healthy weight is important to athletic endeavor. Consume enough calories from healthy foods and beverages to meet the extra energy demands of your daily exercise program.



## 7 Plenty of Produce

The flavonoids from the consumption of a wide variety of colorful fruits and vegetables can soothe inflammation, and lessen muscle damage, oxidative stress, and soreness.



## 8 Importance of Iron

Iron helps get oxygen to muscles. Good plant-based sources are beans, lentils, pumpkin seeds, spinach, and potatoes. Ensure efficient absorption of plant-based iron by consuming these foods with foods high in vitamin C.



## 9 Electrolyte Balance

Sodium, potassium and other electrolytes are easily obtained in the healthy diet. There is no need for a supplement unless you are an ultra-endurance athlete where electrolyte loss from sweating is excessive.



## 10 Pre- and Post-Workout Snacks

Snack size depends on exercise intensity and duration. Eat low fiber, nonspicy foods. Post-workout, eat 4:1 grams carbohydrate to protein, like a medium banana with 2 tbsp. peanut butter.



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