



# Fueling Volleyball Players

## Fueling Your Sport

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- Volleyball requires explosive power, quickness, strength, endurance, and precision. Competitions can last several hours and tournaments can go on for days. The team with the most endurance and strength is usually the winner.
- Your calorie needs depend on the intensity and duration of your training and competition, as well as your age, gender, height, and weight. A 130-pound volleyball player uses about 8.4 calories per minute of vigorous volleyball play. A 180-pound athlete burns about 10.4 calories per minute of play.
- Volleyball players need 2.7 to 3.6 grams of carbohydrate per pound of body weight per day (6 to 8 g/kg/day). Good sources of carbohydrate include whole grain breads and cereals, fruits, and vegetables.
- Volleyball players need 0.55 to 0.8 grams of protein per pound of body weight per day (1.2 to 1.7 g/kg/day). Good sources of protein include fish, chicken, turkey, beef, low-fat milk, cheese, yogurt, eggs, nuts, and soy foods (tofu, soy nuts, and soy burgers).
- Volleyball players should eat at least 0.45 grams of fat per pound of body weight per day (1 g/kg/day). Choose heart-healthy fats, such as canola oil, olive oil, and nuts.

## Fluid Needs

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- Heavy training and many practices increase your body's need for fluid.
- Matches played in warm gyms or outdoors in the hot sun can make you dehydrated.
- Drink during practice to "train" your body to tolerate fluids during competition.
- Plan a schedule for when you will drink.
- Drink before you feel thirsty.
- Two hours before exercise, drink at least 2 cups of fluids.

- Carry a sport bottle with you to the gym or beach.
- During exercise, drink 5 to 10 ounces of fluid every 15 to 20 minutes.
- Weigh yourself before and after practice to find out how much water you lost through sweat. Drink about 3 cups of fluid for every pound of body weight lost during activity. When you lose weight during exercise, it is fluid loss, not fat loss. Replace lost weight before the next practice or match.
- Use sport drinks to help replace fluid, carbohydrates, and electrolytes lost in sweat.

## Dietary Supplements Used by Volleyball Players

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### Creatine

- Creatine can help athletes involved in sports with short bursts of activity, such as volleyball. Some studies show that it can help athletes to jump higher.
- Creatine monohydrate powder is a common creatine supplement. It can be taken at a dose of 3 to 5 grams per day. Taking more than that amount does not give you more benefits.
- Creatine is not recommended for athletes younger than 18 years because it is not known whether it is safe for people in that age group.
- You may gain weight from taking creatine.

### Caffeine

- Caffeine stimulates your central nervous system and can make exercise seem easier.
- To get the desired effect from caffeine, try taking 2.3 to 2.7 milligrams per pound of body weight (5 to 6 milligrams/kg). For a 150-pound athlete, that equals 340 to 400 milligrams of caffeine. That amount can be obtained from a large (16-ounce) cup of coffee.

- The NCAA considers caffeine a restricted substance. Caffeine levels exceeding 15 micrograms in the urine will result in a positive test in college athletes. Caffeine pills are concentrated sources of caffeine and may increase the likelihood of a positive test.
- The International Olympic Committee (IOC) has removed caffeine from its restricted substances list.
- Athletes who don't normally drink caffeinated beverages may find that caffeine makes them feel jittery and anxious, and that it causes insomnia.

## Top Three Nutrition Tips for Improving Performance

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- 1. Maintain your strength and weight through proper nutrition.** Some volleyball players try to lose weight by taking diuretics and laxatives. These practices will hurt your performance. A sports dietitian can create a nutrition plan that will allow you to perform at your very best.
- 2. Learn how to fuel your body for all-day tournaments.** Play may begin early in the morning and last until evening, and include five or more matches. Pack snacks and fluids in your sport bag, and eat between

matches. Good foods to pack include sport drinks, energy bars, 100% juice boxes, trail mix, cereal, string cheese, tubes of yogurt, and crackers with peanut butter.

- 3. Follow a fluid plan.** Drink by a schedule not just when you feel thirsty. Drink before, during, and after practice and matches.

### Nutrition Prescription:

\_\_\_\_\_ calories per day  
 \_\_\_\_\_ grams of carbohydrate per day  
 \_\_\_\_\_ grams of protein per day  
 \_\_\_\_\_ grams of fat per day  
 \_\_\_\_\_ cups of fluid per day

Special concerns: