

Vitamin Needs for Athletes

Vitamins do not provide energy, but they are crucial for turning food into energy. Although some research suggests the high activity levels of athletes may increase their vitamin needs, at present, the Institute of Medicine does not make vitamin recommendations specific to athletes. While vitamins will not enhance your performance, a shortage is sure to get you down.

Here's a view of the role vitamins play, as well as their Dietary Reference Intakes (DRI):

Vitamin B1 (Thiamine)

Thiamine helps breakdown carbohydrates and proteins for energy. Taking more than the DRI does not appear to enhance performance.

- DRI: 1.2 mg (men), 1.1 mg (women)
- Good sources: Whole and enriched grains and fortified cereals

Vitamin B2 (Riboflavin)

Riboflavin is integral to energy production. It also plays a role in red blood cell formation. Athletes need the DRI of this vitamin.

- DRI: 1.3 mg (men), 1.1 mg (women)
- Good sources: Almonds, milk, yogurt, wheat germ, fortified breads and cereals

Niacin

Niacin supports both anaerobic and aerobic performance. Too much or too little niacin can shift your body's use of energy from fat to carbohydrates or vice versa; this might affect performance.

- DRI: 16 mg (men), 14 mg (women)
- Good sources: Meat, fish, poultry, peanuts, peanut butter and enriched grain products

Vitamin B6

Vitamin B6 is involved in over 100 metabolic reactions in your body, including the production of energy and hemoglobin, a protein in red blood cells. Intakes below the DRI can hurt performance.

- DRI: 1.3 mg (31-50 year-old), 1.7 (men 51 and over), 1.5 (women 51 and over)
- Good sources: Meat, fish, poultry, eggs, beans whole grains, seeds and oysters

Vitamin B12

Because of its role in red blood cell formation, B12 is crucial for getting oxygen to tissues. B12 is only found in animal products, putting vegan and vegetarian athletes at risk for anemia. Such groups should try to get as much B12 from food as possible. Taking a B12 supplement or eating B12-fortified foods also may be needed.

- DRI: 2.4 mcg
- Good sources: Seafood, meats, milk and cheese, eggs and fortified breakfast cereals

Folate

Folate is important for cell production, heart health and protection against birth defects. The DRI appears to be enough to support the energy demands of athletes. Female athletes of childbearing age should include folate in their diet every day.

- DRI: 400 micrograms
- Good sources: Enriched grains, dark leafy greens, whole-grain breads and cereals and citrus fruits

Vitamin C

Perhaps the most famous antioxidant, vitamin C offers a wide-variety of health benefits, including protecting from infection and damage to body cells, helping produce collagen (the connective tissue that holds bones and muscles together), protecting your body from bruising by keeping capillary walls and blood vessels firm; and helping in the absorption of iron and folate.

- DRI: 90mg (men), 75mg (women)
- Good sources: citrus fruits (oranges, grapefruits and tangerines), strawberries, sweet peppers, tomatoes, broccoli and potatoes

Pantothenic Acid

This vitamin is needed for the breakdown of fats, proteins and carbohydrates into usable energy. It is found in almost all plant and animal foods. Athletes should aim to meet the adequate intake for pantothenic acid.

- DRI: 5 mg
- Good sources: Poultry, seafood, nuts, seeds, avocados and whole grains

Biotin

Biotin plays an important role in energy production.

- DRI: 30 mcg
- Good sources: Nuts, eggs, soybeans and fish

Vitamin D

"Vitamin" D is actually a hormone, not a vitamin. Your body can make its own vitamin D with enough sun exposure. Vitamin D is important for bone health; athletes in weight-sensitive sports such as gymnastics, running or cycling should take care to get enough. A physician may suggest Vitamin D and/or calcium supplements for some athletes.

- DRI: 200IU, 400IU (51-70 years old), 600IU (71+ years old)
- Good sources: Fortified milk and cereals, cod-liver oil, seafood and eggs