

Do Athletes Need Supplements

SPORTS NUTRITION SERIES

Summary: You can get the recommended amount of most nutrients like vitamins and minerals (except possibly iron) by eating 1,500 calories of a variety of wholesome foods. Deficiencies are more likely to occur in sedentary people who eat very little, such as elderly people than in active, healthy people who eat hefty portions. One day of suboptimal eating will not result in a nutritionally depleted body. It takes weeks of poor eating for that to happen. As for athletic supplements only a few (including caffeine, creatine, specific buffering agents and nitrate) have good evidence of benefits. **Bottomline:** People who take vitamins are health conscious, eat well, and do not need supplements. You are unlikely to live any longer if you take vitamin supplements. No supplement, no matter how expensive it is, can compensate for a poor diet. A vitamin pill at breakfast does not compensate for a junk food lunch. Read on. [See my Webpage](#)

If you are an athlete should you take supplements? For most people why bother if you eat a well balanced diet. It may be a case that you should if your doctor prescribes a supplement but that is a different story. Many athletes take vitamin supplements. They assume that active people need extra vitamins and supplements to pave the way to better health and performance. This is not the case. You can get the recommended amount of most nutrients (except possibly iron) by eating 1,500 calories of a variety of wholesome foods according to many nutritionists. This amount not only prevents nutritional deficiencies but also invests in good health. You are unlikely to live any longer if you take vitamin supplements. No scientific evidence to date proves that extra vitamins and minerals offer a competitive edge according to N. Clark. Despite claims to the contrary, vitamin supplements do not enhance performance, increase strength or endurance, provide energy, or build muscle in healthy, active people. Nor does exercise significantly increase your vitamin and mineral needs, which many people do not know.

According to the International Olympic Committee ([Maughan et al. 2018](#)), the best way to get all the needed vitamins, minerals, and protein is to eat a well balanced diet. Although supplements may be appropriate in certain situations, athletes should plan to maximize performance by eating quality foods. Supplements claiming to directly or indirectly enhance performance are typically the largest group of products marketed to athletes, **but only a few (including caffeine, creatine, specific buffering agents and nitrate) have good evidence of benefits. I will discuss Creatine and Caffeine in another article.**

Taking a general multivitamin is unlikely to be harmful, but beware that high doses of vitamin C, vitamin E, beta-carotene, selenium, and manganese might negatively suppress the body's immune system.

Also important point is that deficiencies are more likely to occur in sedentary people who eat very little, such as elderly people, than in active, healthy people who eat hefty portions.

Interesting point by N. Clark is that vitamin and mineral deficiencies do not develop overnight but over the course of months or years, as in the case of a person with anorexia or someone who eats an inadequate vegetarian diet. Your body actually stores some vitamins in stockpiles (A, D, E, and K—the fat-soluble vitamins) and others in smaller amounts (B and C—the water-soluble vitamins). Most healthy people have enough vitamin C stored in the liver to last about six weeks.

One day of suboptimal eating will not result in a nutritionally depleted body.

An important point is that many people take cancer-protective antioxidants supplements thinking they are doing their buy good, including vitamins C and E, beta-carotene, and selenium, but **high doses of antioxidants can sometimes turn into pro-oxidants and blunt the training response. A good reason to get antioxidants from food** is that food contains them in the right amounts (as well as other nutrients the body needs).

I always stress to people to eat a variety of wholesome foods. In doing so you will consume all the vitamins and minerals you probably need. An interesting point N. Clark makes is that for the most part, the **people who take vitamins are health conscious, eat well, and do not need supplements.**

What are vitamins and minerals? Vitamins are metabolic catalysts that regulate biochemical reactions within the body; they are found in the plants you eat and are created by the plants themselves. The peak of nutrient value occurs at peak ripeness; hence, buying freshly picked local produce can offer slight nutritional benefits. Minerals are natural substances that plants must absorb from the soil. If the soil is void of the needed minerals, the plant fails to thrive or yields small fruits or vegetables that have a poor appearance.

Your body cannot manufacture vitamins (except for vitamin D, which is actually a hormone) or minerals, which is why you must obtain them through your diet. By eating a variety of wholesome foods, you can consume the proper balance of vitamins and minerals needed for optimal health and performance. To date, 14 vitamins and 15 minerals have been discovered, each with a specific function. Here are a few examples:

Calcium maintains the rigid structure of bones.

Sodium helps control water balance.

Iron transports oxygen to the muscles.

Thiamin helps convert glucose into energy.

Vitamin D controls the way your body uses calcium.

Important Research

In a review of carefully controlled research studies on the impact of vitamin supplements on cancer, heart disease, cataracts, and age-related macular degeneration and hypertension, the U.S. National Institutes of Health concluded that “the evidence is insufficient to prove the presence or absence of benefits from use of multi-vitamin or mineral supplements to prevent cancer and chronic disease” (Huang et al. 2006, 1; National Institutes of Health 2007).

The American Cancer Society recommends getting vitamins from a healthy diet, and if you choose to take a supplement, take one with 100 percent of the daily value (DV) but not more. Taking a large dose of a single vitamin might upset nature’s balance because vitamins work synergistically.

Antioxidants (vitamins A, E, and C, and beta-carotene) have shown potential harm for athletes and no benefits. For example, a review of multiple studies shows that more than 1,000 milligrams of vitamin C might hinder athletic performance (Braakhuis 2012). The consensus is that daily high-dose antioxidant vitamin supplementation is unlikely to be of real practical benefit (Davison, Gleeson, and Phillips 2007).