

# Nutrition Supplements



Big business, big dollars, potential risks, and little to no benefits sum up the supplement industry. Food outlets all across the country have supplements for sale. Athletes are frequently drawn by the lure of picture-perfect bodies and the promise of enhanced performance or recovery by using a certain product. The following section lists some common supplements targeted towards athletes and provides a brief statement on each.

## Products

**Creatine:** Available in powder, liquids, or even chewing gum. Found naturally in the body, it provides energy for high-intensity, very short duration events like sprinting. It has been studied for short-term use only. Some athletes benefit from its use but only for certain

events. There is no evidence yet that creatine increases muscle mass. So far it seems relatively safe for use with minimal to no side effects if taken as directed. There may be concern over the safety of taking it on a long-term basis. The product must be used as

directed; failure to do so may negate its proposed benefit or even lead to decreased performance because of intestinal distress. For example, use the minimal amount suggested to enhance performance; do not increase the dose.

**Whey Protein:** A natural part of milk, it has been promoted as easy to digest and absorb with a superior amino acid profile. Manufacturers claim it

stimulates muscle growth better than other protein sources. However, studies do not confirm this in athletes and it is one of the most expensive supplements

on the market. It contains essential amino acids that the body can utilize but food is a better way to get your protein.

**Vitamins - Minerals:** Essential for good health and available everywhere. Individuals with poor dietary habits may need to take this supplement every day. Do athletes require more than sedentary people? Possibly, however you should optimize your food intake first and then decide if you really need this supplement. A standard-dose tablet is unlikely to cause any harm and can help remedy any possible deficiencies in the diet. However, high-potency and mega-dose brands are on the market and should be avoided. It is possible to ingest toxic levels of some vitamins and minerals over time. There is no justification for taking lots of extra vitamin supplements. These are the number one moneymakers for supplement sales nationwide. Health clubs promote special blends for athletes, time-release varieties, etc. Very little evidence exists for the benefit to athletes except in the case of documented deficiencies, which are rare (iron deficiency in females being one exception).



**Androstenedione:** Termed andro, it is a precursor to the natural hormones testosterone and estrogen, both of which are important for growth and repair. However studies fail to show any benefit from taking this supplement. Bottom line is – don't buy it.

**Chromium Picolinate:** Advertised to decrease body fat, increase muscle mass and energy. Chromium is naturally occurring in our food supply and works on carbohydrate metabolism. However, studies fail to show any benefit to athletes.

**Caffeine:** A legal and known stimulant. Athletes have used caffeine to enhance performance for decades. The National Collegiate Athletic Association and Olympic Committees have set limits on its use. Known side effects include irritability, nervousness, increased heart rates, headaches, and sleep loss. If you are not a regular caffeine user it would be wise not to start, as it can be very addicting.



**Protein Powders:** Still very popular, expensive, and loaded with extra ingredients and impurities. Supplementation is likely not necessary given the already high protein diets consumed nationwide. Strict vegetarians and endurance athletes may benefit from

these due to a lower protein diet and an increased need for total body protein. Available from a variety of sources (soy, egg, whey, casein, milk), they are likely harmless to take but won't work any magic for the athlete. Massive doses of protein will not turn into extra muscle.

**Amino Acids:** The individual components of protein molecules (i.e. glutamine and arginine) sold as additives or commonly as the branched chain amino acids (leucine, isoleucine, valine). Available as tablets, powder, or liquid forms. They are very important and essential for good health yet are found abundantly in the existing diet. Supplementation is completely unnecessary. Be aware of false claims, as again there is little scientific evidence to support their use in the supplement form.

**Sports Drinks and Bars:** A small-compact way of ingesting a variety of nutrients. Can be very useful to busy athletes. Solid bars are better as they provide more actual nutrients versus energy drinks like Red Bull, which combines sugar and caffeine for a quick lift yet little nutritional value. Bottled waters advertise added vitamins, amino acids, and make bold statements about boosting energy when in fact they contain no calories. They're probably harmless and if it keeps you hydrated and money is no object, enjoy. Regular sports drinks like Gatorade® or PowerAde® are most useful during and after competition to replace fluids, yet if your sport is short in duration or does not require prolonged exertion then plain water is more than adequate.

## Final Statement on Supplements

Supplements are a billion-dollar business with little to no scientific validation for use by athletes. Safety testing and control of these products are poor. If you feel your diet is inadequate but you're not certain if supplementation is appropriate or necessary, see a Registered Dietitian or speak with a Physician. Do some research on supplements before purchasing because there are some good products on the market. However, many are useless and will not provide the benefits they claim and will cost a small fortune.

GAME OVER!  
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