

Should Athletes Take Dietary Supplements?

If you ask a typical sports nutritionist or dietitian if you should take nutritional supplements, the answer will probably be a negative. Most of them believe that a well-balanced diet is sufficient to satisfy an athlete's needs and that athletes should be treated no differently from the general population. The same philosophy holds true for athletes who have poor eating habits – especially teenage girls – who are told to eat better but not to use supplements.

This attitude is very prevalent in the U.S. while some of the world's former leading sports powers, such as the Soviets and East Germans, believed just the opposite – that athletes in almost all sports need food supplements. This is especially startling since these countries had excellent training tables where the athletes ate well-balanced diets.

These countries' extensive nutritional research in specific sports showed that athletes need supplements even when they have well-balanced diets. The scientists found that even the best diets did not replace all the vitamins, minerals and foodstuffs used up by the athlete. This depletion of nutrients occurs when athletes undergo long and intense training or work more than once per day.

As a result, specialized drinks and various pastries for use by athletes were developed. These were used to supplement the well-balanced diet that is not capable of restoring all the products that are used up most often, they are used during the restorative period, when the body is replenishing its diminished supplies and providing more energy for future workouts.

In their research, athletes were studied very closely to determine food intake. Food rations were carefully measured and food not consumed was subtracted from the total so that there is an accurate count. This intake was then compared to already calculated amounts of what the athlete needed in his or her sport. If there was a discrepancy, the athletes were given supplements. In almost all cases, after taking the supplements, the athletes performed better.

If we closely examine the role of nutrition in the body, we can see why performance improves after an athlete takes in the needed supplements. The calories and chemical composition of the food rations satisfied the body in relation to energy and the nutritional substances necessary for cell construction and biosynthesis of enzymes, hormones, regulation of nerve impulses and other important functions of the body.

If nutrition is not adequate, various problems can arise. This includes a decreased resistance to illness, decreased sense of well-being, and most importantly, a decrease in mental and physical work capacity.

The body's need for nutrients depends upon age, sex, physiological condition, physical activeness, professional work, climate and other factors. Athletes experience great muscle tension and psychic activity during extreme training and competition loads. This differentiates them from non-athletes.

The key to athletic nutrition lies in restructuring the metabolic processes so that they lead to greater adaptation to increasing physical loads and greater functional capabilities. Because of this, the quantities and combinations of food substances optimal for people of average physical activity are not optimal for athletes. Following are the main features of an athlete's diet:

(1) The nutrition should not only compensate for used energy and food substances, but have the ability to increase work capacity and speed up recovery after intense physical loads. The latter objective is especially important. Today, as the training regimen becomes more complex with multiple trainings and short periods between eating and doing muscular work, the nutrition of athletes should be directed to a quicker return to the prework level of functioning.

In addition, the nutrition should prepare the athlete for executing the next physical loads and thus help avoid over-tensing and over-fatigue. The food should be very easy to digest. In essence, the nutritional regimen should correspond to the training and competition regimens.

(2) In planning the athletic nutrition, it is necessary to use a differentiated approach. Take into consideration the specifics of psychological loads and select adequate forms of nutrition in the training, pre-competitive, competitive and restorative periods.

(3) In putting together the food ration, create a favorable metabolic background for proper biosynthesis of the food combinations. (An example of a bad combination would be spinach and a calcium food, because chemicals in spinach interfere with calcium absorption.) The combinations should be chemical regulators of physiological processes that are tied in with the accomplishment of muscular activity.

(4) Food factors should be used to regulate body mass to maintain the correct weight for optimal performance. To lose weight, use food products and supplements for getting to the correct weight. Also, the food products must ensure quicker development of muscle

mass and strength. Training and exercise increase muscle mass, but only if the needed food products are present.

5) The food rations should be individualized for each athlete.

Athletes are not the same as the general population; their nutritional needs are much greater. Because of athletes' exceedingly heavy and sometimes multiple trainings, even the best balanced diets are not capable of restoring the protein, fat, carbohydrates, vitamins and minerals used up in training. Nor do they provide the additional energy supplies that are needed for future trainings and performance. This is why supplements are necessary to ensure that the athlete is able to attain peak performance.

When using supplements, be sure that they are made of whole foods, not chemicals. The results you get from whole food supplements are much more significant in their positive effects.

Do not be misled into thinking that all supplements are equal in value. Studies have shown that when you use whole food supplements the results are much different than when synthetic supplements are used. The main reason for this is that synthetic supplements do not replicate all that is included in whole food supplements.

The bottom line is that if you wish to attain your maximum potential in sport you should use supplements but only when needed. As the term implies, "supplement" means to supplement your diet, not to replace it.