

NUTRITION and the ATHLETE

VITAMIN SUPPLEMENTS AND EATING PATTERNS

The majority of athletes I counsel worry about what they eat. "I don't have time to eat right," is their most common complaint. They want to know how to eat healthfully while on the run and are insecure about the quality of their diet.

Nutrition is important for your general health and your athletic performance. When I speak about nutrition , I find the need to clarify what is meant by a "well-balanced diet." This term can best be explained by discussing the need to supplement our diets with vitamins.

Vitamins are organic compounds needed for normal growth and maintenance of human life. They function with enzymes or as antioxidants to regulate the release of energy from foods and to build and maintain body tissues. There are 13 essential vitamins; each performs one or more specific functions in the body. If anyone vitamin is missing, a deficiency will develop because the role(s) of that vitamin cannot be fulfilled by any other substance.

The vitamins fall into two general categories-fat soluble vitamins (A, D, E and K) and water soluble vitamins (C and the Bs). The fat soluble vitamins are stored by the body. Whereas the water soluble vitamins are subject to much faster depletion. The fat soluble vitamins should not be taken in excess since they are stored in the body. Because they can be stored at excessively high levels. Special care should be taken.

Because competitive athletes and busy professionals (who routinely workout) have special nutritional needs. I recommend specific foods and vitamin supplementation as well as good eating patterns that will contribute to optimal performance.

1. a. The health-conscious athlete or exerciser should choose carbohydrates and vitamin supplementation as the dietary mainstay or primary source of energy. This combination is the best fuel for your muscles. Some examples are breads (in moderation), cereals, pastas, fruits, vegetables and other carbohydrates. A person using vitamins should follow a program for maximum results— a vitamin regime that has either been tailored by a health care professional or a vitamin program that has at least the daily recommended allowances (RDA).

1. b. Protein should be a secondary source of calories-Protein from animal sources-beef, lamb, fish, chicken, turkey, eggs, cheese, and milk. Avoid fatty foods such as pork, beef, sausage, etc. They are high in: saturated fats and cholesterol. Examples of protein from vegetables are peanuts (dry roasted & unsalted), nuts, dried beans, dried peas (split peas) and grains (corn meal, barley).

2. What you eat throughout the day is more important than the number of times you eat. Eating

three meals a day is not a prerequisite for a well-balanced diet. Energy requirements as well as biological demands of the body (absorption and utilization of essential nutrients and vitamins) vary among individuals. Therefore "wise" meals or mini-meals along with vitamin supplementation help you maintain high energy and stamina throughout the day. Just think of yourself as an expensive sports car that needs maximum care in order to perform optimally.

Because of my training and participation in sports. I am often asked by my patients and friends the following questions.

- Should I take vitamins?
- Will junk food hurt my performance?
- Should children in sports eat differently?
- Does carbohydrate loading work?
- Are there foods that build muscle?

Should I Take Vitamins?

Vitamins are chemical substances that the body cannot manufacture. Many people say, "well, I eat a well-balanced diet; isn't that enough." Eating a well balanced diet may not be enough because each individual's physiology and body chemistry varies. Thus absorption and utilization of essential nutrients may not be achieved efficiently.

Vitamin supplements are a necessary part of an athlete's diet. For example:

- Thiamine (B-1) helps convert glucose into energy.
- Vitamin D controls the way the body uses calcium in bone and cartilage.
- Vitamin C is important for fighting infection and maintaining strong tissue.

Now, the use of vitamins as supplements should be used in moderate amounts so help balance your body's needs. The old saying "the more I use, the more I benefit" is not applicable— since each individual's absorption and needs vary. A key factor is moderation.

Will Junk Food Hurt My Performance?

Junk food will not help your performance. The majority of junk foods contain large quantities of high-caloric sugar and fat for fuel, but lack the

vitamins, minerals, and protein the muscles need to function optimally.

Eating sweets thirty to forty-five minutes before exercise frequently contributes co hypoglycemia (low blood sugar). The increase in sugar intake is quickly absorbed into the blood which stimulates abnormally large insulin secretion to transport the sugar in to the muscles. The high insulin level, when combined with exercise (which increases the rate of sugar into the working muscles), drops the blood sugar to an abnormally low level. The athlete may feel lightheaded, shaky, and uncoordinated.

Should Children in Sports Eat Differently?

Children and adults alike need the same vitamins and minerals for health and well-being.

Children have slightly higher needs for certain nutrients for growth. They are establishing lifelong eating habits that will affect not only their performance, but also their future health and wellbeing.

Does Carbohydrate Loading Work?

Carbohydrate loading-exercising your muscles empty of glycogen and reloading them by eating foods high in carbohydrates-is unnecessary for the average athlete. Eating a carbohydrate-rich meal, however, such as spaghetti the night before will beneficially saturate the glycogen stores— thus the food will be digested and ready to use for energy.

Are there Foods that build Muscles?

Training, not diet, increases muscular strength; however, muscles require slightly more protein during development. This additional need is met by following a good nutritional program. The old saying "you are what you eat" is a key factor in an athlete's performance and psychological edge in competition and in personal accomplishments.