

# A Basic Overview of Sports Nutrition

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Our bodies consume calories and energy every moment of the day and night whether we are jogging or sleeping. It is obvious that the more physical activity is performed, the more calories are required to stoke the fires of the body's energy.

It is imperative that the athlete is provided with a proper, varied and balanced nutritional plan which would differ significantly from his sedentary peers. Sports nutrition is not only designed to provide more calories, but the right kinds of foods in the proper amounts to maximize the athlete's muscular efficiency, stamina and overall fitness.

A correct sports nutrition program is very broad as it encompasses the complete spectrum of available foods. Every food group in the food pyramid is included in the athlete's diet and the caloric intake is carefully calculated to fall between 2,000 and 6,000 calories, depending on the particular form and duration of exertion, age, weight, and gender. It is a mistaken assumption that nutritional supplements can replace a proper and balanced diet as these formulas are always to be considered as adjuncts and catalyzers to a well-designed conventional nutrition and never as a replacement for healthy, fresh foods.

## **Athletes Need Water!!!**

Hydration is a critical aspect of sports nutrition. The human body cannot make or store water thus the amount of intake must be at least equal or greater to the amount lost through elimination of urine and perspiration. Fresh, clean, cool water is always the preferred drink, however the various sports beverages which feature a measure of electrolytes and up to 10% carbohydrates can also be helpful. Small amounts of water should be consumed frequently rather than large amounts not as often. The beverages should be cool to cold as that will help to reduce your core body temperature and restrain perspiration which will cause even more water loss. If the color of the urine becomes dark, or the amounts diminish those are sure signs of dehydration.

## **Carbs**

Carbohydrates are the principal source of energy for the human body and also serve as an indispensable provision of the fiber necessary for intestinal efficiency and health. Approximately 60% of all the calories ingested by the athlete in the normal course of the day should be based on carbohydrates. Carbohydrates are the body's most important fuel source and are found extensively in vegetables, fruits, breads, pastas, rice, cereals and many other foods. The human body converts these sugars and starches to glucose or stores them in the liver as glycogen. If you run out of carbohydrate stores during exercise, your body will automatically switch to burning fat and protein to derive its energy and your athletic performance will immediately falter. Carbohydrates should be consumed in larger quantities for several days before bouts of significant exercise or competition, so that your muscles have ample glycogen levels to access. Some endurance sports athletes where stamina is foremost have successfully adopted the Carbohydrate Loading program where the muscles are loaded with glycogen by eating larger amounts of carbohydrates in the days leading up to the event

or competition. The normal recommended daily percentages of nutrients changes during Carbohydrate Loading days to a breakdown of: 80% Carbohydrates, 10% Protein & 10% Fats.

## **Fats**

Fats in the human diet are primarily from animal sources such as meats, dairy and eggs, although there are some excellent sources of vegetable lipids such as avocados. The total fat consumption should be limited to 25% per day. That may seem like a very high percentage of the total diet when compared to some more sedentary dieters who cut their fat consumption to levels far below these, however we must consider that the athlete has significantly different nutritional requirements. Your body requires a small amount of fat to catalyze various critical biological functions and to act as an alternative energy source to glucose. When the athlete's exercise routine is of low to moderate intensity, then fat becomes the body's primary energy source. As the intensity of the exertion increases, then the body switches to carbohydrate fuels.

## **Athletes Need Protein to Recover from Workouts.**

Proteins are found in fish, poultry, meats, nuts, beans, dairy and eggs and should constitute the other 15% of the sports diet, as they are necessary to maintain cellular and muscle tissue health. Proteins provide the ability for your body to rebuild and repair stressed and damaged tissues. The amount of protein that an athlete should consume will vary upon the level of exertion, the type of exercise, the intensity and duration of that exercise, total caloric intake and level of carbohydrate intake. Falling short of the acknowledged minimum daily level of protein intake can lead to serious medical complications. Proteins should be consumed in the days prior to major competitions or exercise but not necessarily on the day of the event. High fat and high protein foods can overwhelm kidney functions and take an excess amount of time to digest, and so should be avoided on the day.

Vitamins and minerals are to be taken into consideration as if the diet is insufficient in these critical elements, various important biochemical and functional reactions within the body can literally cease.

A sports nutrition plan must be designed with the particular athlete in mind. The sports nutrition plan for an anaerobic athlete whose exertions are short in duration and very intense would be significantly different than for a marathon runner or a weight lifter.

Athletes who are after the winning edge should focus primarily on the importance of a properly designed and thoroughly implemented sports nutrition program that the athlete must adhere to with the same dedication and discipline that they exhibit for the rest of their athletic routine. Sporting talents can be enhanced by providing more power, strength and endurance through the consumption of a correct sports nutrition program. It goes without saying that a professional nutritionist or physician should always be consulted prior to commencing any particular nutritional program, as the wrong balance in an athlete's diet can have dire consequences for performance and overall health.

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