

## Do Athletes Need Fat in Their Diets?

For years health professionals advised Americans to decrease their fat intake. This advice was well-founded considering the prevalence of obesity in the U.S. The message the public heard was that fat was bad and substituting carbohydrates for fat in the diet was the road to a healthy weight and good health. Then Dr. Atkins re-emerged promoting high-fat, low-carbohydrate road to healthy weight. Suddenly it seemed fat was good and carbs were bad. What is a person supposed to eat when the health experts can't agree on a healthy diet?

### How does this advice affect athletes?

Some athletes responded to these health messages by eliminating as much fat from their diets as possible. Endurance athletes tried to increase their competitiveness by limiting their fat intake, and athletes such as gymnasts, dancers, and figure skaters tried to improve their appearance by eating very low-fat diets to keep their body weight and percent body fat down. The problem with this very low-fat approach is that energy intake will not meet energy needs, especially for endurance athletes. In female athletes very low-fat diets can lead to disruption of the menstrual cycle and increased susceptibility to stress fractures.

Other athletes tried a high-fat, low carbohydrate diet in an attempt to reach a healthy weight or to spare glycogen stored by burning fatty acids for fuel instead of burning glucose. They found the high-fat diet did not improve endurance.

### How much dietary fat does an athlete need?

Fat is an essential nutrient. Along with carbohydrate, fat is considered a **protein-sparing energy nutrient**. In other words, by consuming adequate calories from fat and carbohydrate, protein can be spared for its unique functions such as muscle building and the production of enzymes, hormones, and antibodies. Fat from food is broken down to fatty acids during digestion, and some of these fatty acids are necessary for health. These so-called **essential fatty acids** must be consumed from food because the body cannot make them like it makes other fatty acids. A deficiency of these essential fatty acids affects the hair, skin, and the immune system. Fat also is necessary for the **absorption of the fat-soluble vitamins A, D, E, and K**. Low-fat diets can cause a deficiency of these vitamins.

An athlete should consume 20 to 25% of caloric intake from fat. To estimate how many grams of fat this would be, multiply daily caloric intake by .20 or by .25 and divide the resulting number by 9 (there are 9 calories in a gram of fat.) For example, if an athlete requires 2,500 calories a day the fat intake should be 55 to 70 grams of fat daily (2,500 calories X .20 or .25 divided by 9.)

The **healthiest fat sources are the ones that come from plants and from fish**. For example, plant oils like olive oil and canola oil as well as nuts, peanut butter and seeds such as sesame seeds are excellent sources of healthy fats. The fat in fatty fish like salmon, tuna, and herring is a good source of healthy omega-3 fatty acids. Fat from animal sources is high in saturated fat but also provides healthy sources of fat when eaten in moderation (one to two servings per day.) Such foods include 1-2% milk, butter, cheese, ice cream and meats. Trans fatty acids should be limited, but not eliminated. They are found in processed plant oils and foods made from them such as margarine, chips, crackers, and cookies.

An athlete who requires 2500 calories daily could consume 70 grams of fat by eating 2 tablespoons of peanut butter, 2 tablespoons of salad dressing, 1 ounce of nuts, and 8 ounces of lean meat, poultry, or fish.

### The Bottom Line:

Athletes need to include sources of fat in their diets. The sources should be primarily plant foods and fish. Consuming too little fat can impair performance and health, stop ovarian function and menstrual periods, lead to stress fractures from low estrogen, etc. Also, inadequate carbohydrate intake can impair performance as well. The athlete should strive for a balanced diet which does not eliminate any food group.