Food for fitness

If, as the saying goes, "you are what you eat," nowhere is this more evident that in the gym or on the playing field, according to Diane Wakat, a physiologist and developer and health services director of Fortunate Life Center, a program of nationally franchised weight-control centers. In her work with Fortunate Life clients, as well as through her research in human physiology, Wakat has observed and documented the importance of the nutrition-exercise link.

"No matter if you're a three-times-a-week jogger or an Olympic contender, what you do and don't eat does make a difference both in how well you perform and how well you feel," says Wakat.

What is unique about exercise? How is it different from other activities? It's different because exercise uses more energy and increases body temperature. These two facts may alter the amount and balance of the six categories of essential dietary nutrients: carbohydrates, proteins, fats, vitamins, minerals and water (fluid balance).

Carbohydrates. "Carbohydrates are an exerciser's best friend," says Wakat, "because in converting carbohydrates to energy, the body requires less oxygen per calorie and produces much less waste for the kidneys to excrete."

It's important, however, to distinguish between types of carbohydrates. Complex carbohydrates, found in whole grains, fruits and vegetables, give a sustained level of glucose, a type of sugar. Simple sugars, found in candy bars, may bring one's energy level up quickly, but may drop it down even quicker.

Wakat recommends that those who exercise regularly should receive 50 percent or more of their daily calories from complex carbohydrates.

As for athletes who train intensively, Wakat recommends a daily diet high in carbohydrates, rather than loading up on carbohydrates before athletic events.

"Carbohydrate loading is of no advantage to people in events lasting fewer than 90 minutes, and actually may detract from the performance of weightlifters, joggers and sprinters," says Wakat. In addition, carbohydrate loading seems to lose its effectiveness if done more than three to four times a year, and there still is a question of potential long-term damage to the heart.

Proteins. In healthy individuals, the amount of protein eaten daily should equal 12 percent to 15 percent of total calories. For regular and intensive exercises, the amount of protein needed is based on many factors, including the intensity of the activity and the amount of muscle development desired.

According to Wakat, there is mounting evidence that endurance-type exercises may increase the need for protein — especially for one or two of the essential amino acids. For an increase in muscle mass, more than the Recommended Daily Allowance of protein may be necessary. "However," Wakat warns, "too much protein can lead to dehydration (because water is needed to excrete waste nitrogen), fatigue and a subsequent drop in performance."

Fats. With vigorous exercise and the ingestion of additional calories each day, it is likely that a proportion of those calories will be dietary fats. "A healthy intake of fats is 20 to 30 percent of total calories, says Wakat.

Vitamins. Vitamins act primarily as coenzymes in the body helping to produce energy from ingested food. An increase in the amount of calories expended every day may increase the need for certain vitamins to maintain the high energy level needed for exercise. Athletes who exercise intensively, therefore, may need vitamin supplements, especially water-soluable vitamins. "However, megadosing with vitamins can be dangerous," warns Wakat, "and can lead to vitamin toxicity."

Minerals. Women engaging in consistent, high-intensity exercise must make sure to have enough iron and calcium in their diets. Insuffient iron can lead to sports anemia, a condition characterized by deficient hemoglobin levels and low iron storage.

Calcium is an important component of every woman's diet because it helps ensure healthy, strong bones. "Unfortunately," Wakat states, "many women have a prejudice against dairy foods because they "have too many calories."

Water (fluid balance). According to Wakat, "If you don't satisfy your water needs during exercise, the result can be pretty devastating: You die." The body needs water for sweating, which maintains the body temperature within tolerable limits. If the body doesn't have enough water, for sweating and maintaining central blood volume, the body will shut down the sweating process.