Water Basics

Water is one of the most essential components of the human body. Water regulates the body’s temperature, cushions and protects vital organs, and aids the digestive system. Water not only composes 75 percent of all muscle tissue and about 10 percent of fatty tissue, it also acts within each cell to transport nutrients and dispel waste. And, because water composes more than half of the human body, it is impossible to sustain life for more than a week without it.

Water Loss

Necessary to the healthy function of all internal organs, water must be consumed to replace the amount lost each day during basic activities. In 2004 the Food and Nutrition Board released new dietary reference intakes for water. It is recommended that women consume 2.7 liters (91 oz) daily and men consume 3.7 liters (125 oz) through various beverages (80%) or in food (20%). Active individuals need even more, particularly if they’re exercising in hot weather. This is especially important during the 24 hours prior to vigorous exercise. You can meet your body’s water needs over the course of a day through a variety of fluids and foods including juices, soda, smoothies, tea, lemon-ade, soups, fruits and vegetables.

In one hour of exercise the body can lose more than a quart of water, depending on exercise intensity and air temperature. If there is not enough water for the body to cool itself through perspiration, the body enters a state of dehydration.

Dehydration

For regular exercisers maintaining a constant supply of water in the body is essential to performance. Dehydration leads to muscle fatigue and loss of coordination. Even small amounts of water loss may hinder athletic performance.

In a dehydrated state the body is unable to cool itself efficiently, leading to heat exhaustion and possibly heat stroke. Without an adequate supply of water the body will lack energy and muscles may develop cramps.

To prevent dehydration, exercisers must drink before, during and after the workout.

Fluid Balance and Replenishment

It is important to drink even before signs of thirst appear. Thirst is a signal that your body is already on the way to dehydration. It is im-