

# WATER

## The Medium of Life

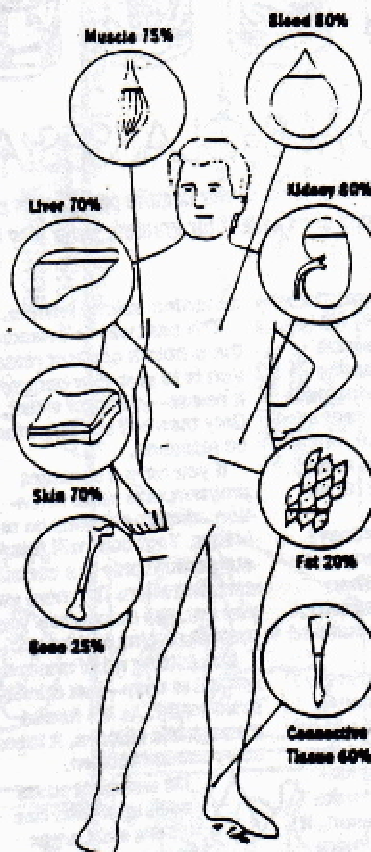
We all know the importance of a well-balanced diet to our overall health and well-being, but we sometimes forget the other critical element of sound nutrition—water. Water is the medium for all body fluids, including blood, the lymph, the digestive juices, urine and perspiration. It balances acids, moves nutrients into the cells, and is a solution for holding electrolytes. (Electrolytes are salts that allow the conveyance of electrical currents.) The body's need for water is second in importance only to its need for oxygen. Adult body weight is approximately 55–65% water, with infants' body weight as much as 70%. A 10% loss of body water poses significant health risks, and a 20% loss may result in death.

### Water and Exercise

Water plays an essential role in the human energy system. The more we expend, the more we need. During physical activity only 25% of the energy generated by the body is turned into mechanical work—the balance is actually turned into heat. This heat must be removed by sweating to avoid dangerous increases in body temperature.

During intense activity, the body can lose up to two liters of water as sweat. A marathon runner can actually lose 13 lbs. of body weight in the form of water during a race.

Dehydration due to water loss during activity can have a significant effect on the body's performance. Since the body's energy production takes place in a fluid environment,



If it were possible to drain all the water from a 160-pound man, his dehydrated body would weigh only 64 pounds. This table shows where much of the water is distributed.

the blood, muscles and organs all need water balance to work effectively. When water is drawn away from the working muscles, blood volume is decreased so the heart must pump harder to supply the same amount of energy.

### Water Works

The following recommendations can help ensure that your body has adequate water to keep you working in top condition.

- ☞ Drink 8-10 8-ounce glasses of water or other fluids daily.
- ☞ Start drinking before you feel thirsty, since during activity the body loses water faster in sweat than it can absorb into the digestive system.
- ☞ Use water to cool your skin during activity.
- ☞ Wear light, loose, porous clothing in hot weather to help sweat evaporate.
- ☞ Weigh yourself before and after activity; replace the water you've lost with cool fluids.
- ☞ Don't count on thirst as an accurate guide to your water needs. You'll quench your thirst long before you replenish your body supply.
- ☞ Don't try to lose weight by not replacing water lost during activity.
- ☞ Don't wear rubberized clothing designed to increase sweating. It can't help you lose weight; it just prevents sweat from evaporating. ☐

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