

## Water-The Vital Source

Next to oxygen, water is the human body's most important nutrient. Yet 75% of North Americans are chronically dehydrated and fail to drink the recommended amount of water per day. Water plays a vital role in regulating body temperature, transporting nutrients, oxygen and glucose to the cells to give us energy, removing waste, cushioning joints and strengthening muscles, protecting organs and tissues, softening stools, and maximizes mental function. Water's ability to dissolve a multitude of substances allows our cells to utilize valuable nutrients, minerals and chemicals in biological processes, and water's surface tension enables our body to mobilize these elements efficiently.

Up to 60% of the human body is water, the brain is 75% water, blood is 82% water, and lungs are nearly 90% water. The blood loses water via the skin by perspiration, kidneys by urine, and lungs by exhaled water vapor and intestines by feces. At normal activity levels, people lose two to three cups of water a day in perspiration. But during an hour of vigorous exercise, people sweat out approximately a quart of water.

The amount of water we need is based upon a number of factors including size, activity level, temperature, climate and diet. People who eat high amounts of fruit and vegetables, which are high in water content, will require less water intake than people who consume higher amounts of meats and fats, which are more concentrated and require additional water to help utilize them. During exercise, it is best to weigh yourself before and after exercise and drink at least 16oz. Of fluid for every pound lost. There are many different recommendations in regards to the amount of daily water intake, but the current recommendation is 0.5oz. per pound of body weight. For example, a 150-lb person would need 75oz. Of water per day to be adequately hydrated. The larger the person, the higher the metabolic load, thus more water is required.

There are many warning signs of dehydration and the most commonly mistaken first sign is a dry mouth or a thirst sensation. Our thirst mechanism does not kick in until we are mildly dehydrated, and have already lost two to three cups of our total body water.

The "dry mouth" is actually the very last sign of dehydration. The body can suffer from dehydration even when the mouth may be fairly moist. For some of us dehydration begins during the intrauterine stage of cell expansion, water for cell growth of the child has to be provided by the mother. However, the transmitter system for water intake seems to be produced by the fetal tissue, but registers its effect on the mother. The very first indicator for water needs of the fetus and the mother seems to morning sickness during the early phase of pregnancy.

Chronic pains of the body that cannot be easily explained as injury or infection should first and foremost be interpreted as signals of chronic water shortage in the area where pain is registered- a local thirst. These chronic pains include dyspeptic pain, rheumatoid arthritis pain, angina pain, low back pain, intermittent claudicating pain, migraine and hangover headaches, colitis pain and its associated constipation.

Some of the more commonly known symptoms of dehydration are as follows:

- Infrequent urination
- dark-coloured urine
- increased body temperature
- laboured breathing
- fatigue
- sunken eyes
- sunken fontanel
- poor skin turgor
- dizziness
- weakness
- muscle spasm
- swollen tongue
- failing kidney function

Dehydration can also lead to impaired brain functions such as:

- slowed thinking ability
- forgetfulness
- loss of balance
- impaired blood flow
- delirium.

“Water is the solvent of the body, regulates all functions, including the activity of the solutes it dissolves and circulates” –should become the basis of all future approach to medical research. Upon realizing this we will reach for a glass of water rather than a bottle of pills.