

What's Water Got to Do with It?

The human body can sustain with deficiencies of other nutrients for months or even years, but can survive only a few days without water. Water is the most abundant nutrient in the body. Water accounts for 50-65% of an adult's weight, a human embryo is about 98% water and water represents 75% of muscle tissue and 92% of plasma.

Water serves many roles for the body. It is a lubricant, a major part of joint fluid, aides in digestion, is highly prevalent in cells, participates in chemical reactions of the body and is an excellent solvent as it transports nutrients and waste products in the bloodstream.

Our body regulates and balances water by a feedback system which involves the brain (the hypothalamus) and the antidiuretic hormone (ADH) which is released by the pituitary gland. A loss of about 1% of body water creates the sensation of thirst. A decrease in water and/or an increase in sodium in the blood are detected by osmoreceptor cells—which are regulatory cells located in the hypothalamus. As the effective ion concentration of blood increases, water leaves these cells and they shrink. This generates nerve impulses that trigger thirst and stimulate the release of ADH.

ADH increases the ability of nephrons (the kidney's filtering device) to absorb water that would be lost as urine. The sodium concentration of the blood decreases, cells of the hypothalamus regain water and the thirst sensation goes away. The average adult needs 64 ounces of water per day. The 65% water content of the adult body consists of the clear, odorless, colorless liquid, not coffee, tea or soda!

To stay hydrated means that the kidneys don't have to work so hard and water also helps the brain function and the muscles stay strong. The best way to stay hydrated is to drink "pure" water. Some municipalities add chemicals such as fluoride and aluminum to drinking water in the "purification" process. There is some belief in the medical field that aluminum causes Alzheimer's disease.

A good filtering system for drinking water is recommended. Although bottled water appears to be good quality, it is less regulated than tap water! Bottled water is classified as a food product by the FDA, but producers are not required to list the source of the water on the label. It may come from wells or springs, or it could be municipal water. If you are concerned about the bottled water you prefer, you can request the latest chemical analysis from the bottler. You can then contact the EPA at 1-800-476-4791 to compare the analysis to the federal standards.

The body is a marvelous system that runs mostly on water—that's what water has to do with it! Drink up!

For more information, call me at 303-833-3791. Stop by and see us at Rocky Plains Quality Meats, 4022 WCR 11