

Understanding the Importance of Hydration

Water and Hydration

75% of Americans are chronically dehydrated. (Likely applies to half the world population)

In 37% of Americans, the thirst mechanism is so weak that it is often mistaken for hunger.

Even mild dehydration will slow down one's metabolism as much as 3%. One glass of water will shut down midnight hunger pangs for almost 100% of the dieters studied in a University of Washington study.

Lack of water is the number 1 trigger of daytime fatigue. Preliminary research indicates that 8-10 glasses of water a day is capable of significantly easing back and joint pain for up to 80% of sufferers.

A mere 2% drop in body water is capable triggering fuzzy short-term memory trouble with basic math, and difficulty focusing on the computer screen or on a printed page.

Drinking 5 glasses of water daily decreases the risk of colon cancer by 45%, plus it is capable of slashing the risk of breast cancer by 79%, and one is 50% less likely to develop bladder cancer.

Water is free. Unlike a daily 20 oz bottle of carbonated soft drink that will cost you \$1.00 a day, tap water costs you nothing. That's \$350.00 in savings per year!

Water assists to prevent bladder infections. Studies indicate that men who consume more than 10 glasses of water per day are less likely to develop bladder infections than those that did not. Water also helps keep your heart functioning.

You have most likely heard that our bodies are not capable of lasting more than two to three days without water, though that you would be capable of going weeks without food. Water is required for very basic physiologic functions such as regulating blood pressure and body temperature, hydration and digestion (The body requires about 1.5 milliliters of water to absorb every calorie ingested).

All humans really need to drink more water. The human body is about 60% water. Your muscles and your brain are about 75% water. Your blood is about 82% water. And your bones are about 25% water, drinking coffee and other drinks with caffeine do not count because caffeine is a diuretic, which makes the body rid itself of water. Your body requires water to survive and function properly.

A person requires water to sustain their physical and the physical body's many vital chemical reactions and maintain correct body temperature. Water also rehydrates you for the reason that during a workout, water is lost as perspiration (and expired air), and this is capable of leading to dehydration if fluids are not replaced. Another plus, drinking water before and during physical

activity is capable of enhancing your athletic performance. It also assists the body to eliminate waste, which in turn is capable of reducing long-term risk of colon cancer.

According to a survey, nearly three quarters of Americans are aware of the recommendation of drinking eight 8 oz servings a day, though only 34% actually drink this amount of water each day. Most humans consume only about 6 servings of water a day and nearly 10% declared that they do not drink water at all.

Carbonated juices

All types of soft drinks are very acidic, especially colas. In order to neutralize a glass of cola, it takes 32 glasses of high pH alkaline water. It is clearly known by the medical profession that disease loves acid. In fact, a physician from Loma Linda University declared in a speech that if we were capable of getting our cells to maintain a normal pH (slightly alkaline), cancer would not be capable of growing in the human body.

Active girls who drink cola drinks are five times more likely to have had bone fractures than girls who do not drink soda, according to a study published by Grace Wyshak of the Harvard School of Public Health and Harvard Medical School.

A survey of 460 ninth and tenth grade girls found a correlation between drinking soft drinks and having broken bones. Girls drinking carbonated beverages were three times more likely to have a broken bone than girls not drinking them. Prior research has found that caffeine leaches calcium out of bones, leading to increased incidences of osteoporosis in the long term. This study attributes immediate damage to the phosphoric acid in colas. For more than a century our scientists have known that workers exposed to phosphorus suffered more broken bones. Sixteen-year-old girls currently consume an average of two-plus 12-ounce soft drinks daily. For boys, intake tops three 12-ounce soft drinks daily.

Francisco Contraries, M.D., of the Contraries Cancer Clinic in Tijuana, Mexico stated, "Cancer is like a plant cell; it can't live in an oxygen-rich environment. Cola drinks make our bodies poor in oxygen. Cancer is the second cause of death in America. The average American is consuming 800 or more soft drinks annually". Be more responsible for your own life. Doctors have no responsibility for another's health."

A three-year study of over 1,000 men with a history of kidney stones showed that there was a clear-cut difference in the group's experiences, with much less renal colic in the men who had avoided soft drinks. Of those who continued to use soft drinks, there was also a big difference in outcome depending upon the nature of the soft drink consumed. Soft drinks acidified with phosphoric acid were the worst offenders. Colas of all kinds, of course, are well known for their high phosphoric acid content.

The soft-drink industry as a whole has consistently portrayed its products as being "positively" healthful, saying they are 90% water and contain sugars found in nature. M. Douglas Ivester, Coca-Cola's chairman and CEO, said, "Actually, our product is quite healthy. Fluid

replenishment is a key to health...Coca-Cola does a great service because it encourages people to take in more and more liquids." New York Times. 26 May 1998

It is a fact however, that soft drinks pose health risks both for the reason that what they contain (for example, sugar and various additives) and what they replace in the diet (beverages and foods that provide vitamins, minerals, and other nutrients).

Nutritionally, soft drinks are low in value. Their food energy comes solely from refined sugar. Every element of nutritional importance, except calories, is zero. "Soft drinks have much in common with hard liquor", claimed the co-discoverer of insulin, Dr. Charles Best.

Coffee

Coffee has over 1000 chemicals per cup of coffee, and 500 of them are known carcinogens. Caffeine is a "pesticide" given off by the bean to keep the bugs from eating it. Each cup of coffee contains about 120 mg of caffeine. Were that amount injected directly into your veins, you would physically die. It is a lethal dose. The rush you get from your coffee is your body speeding up your metabolism to rid itself of this poison, and your body steals water from everywhere to help flush the caffeine out. Please note that the International Olympic Committee had outlawed the use of caffeine for its events until recently. Caffeine's harmful diuretic effects appear to outweigh any potential performance benefits. To protect themselves from the caffeine, women's bodies use calcium to neutralize it. You lose about 5 milligrams of calcium for every 165ml of coffee, or two cans of caffeinated juice.

Sports Drinks

Sports drinks that contain a carbohydrate level greater than 8% or 2 gm/oz hinder the absorption of fluids into the body, thus having a perceived negative effect on the human body. Fruit juices have high levels of carbohydrates varying from 10% to 17%, so if one prefers to use fruit juice instead of water; it ought to be diluted with water by 50%.

Though whether to consume water or sports drinks really depends on three things:

- The type
- The amount of exertion you are getting,
- The heat and your own body.

In general, water is unsurpassed. After all, humans and almost all other land animals except a few rare desert species have evolved to thrive on water, not sports drinks. However, in certain situations, usually when doing prolonged and strenuous activity in hot weather, you may sweat so much that your body's electrolyte balance is compromised. That is when sports drinks come in.

Hyponatremia is a metabolic condition in which there are not enough electrolytes in the body fluids outside the cells. It is a dangerous condition in which hikers sweat so much that their electrolytes go out of whack. It usually occurs when strenuous exercise takes place in extreme

heat, and it is more common among ultra-endurance athletes and high-mileage long-distance hikers than among casual day hikers, although day hikers are capable of being affected in places where it is common for people to overextend themselves in severe heat. Drinking water alone does not solve the problem. In fact, drinking too much water after depleting your electrolytes actually makes things more serious.

Caffeinated drinks (tea, coffee, some sodas) are definitely a bad idea in hot weather, for the reason that they are diuretics. That means that they actually contribute to dehydration. They are not such a hot idea in cold weather either, for the reason that caffeine is capable of contributing to hypothermia.

The sports drinks vs. water debate rages on: water will always be an excellent fluid replacer for most recreational athletes who exercise for less than 60 to 90 minutes. Water is inexpensive, readily available, and what your body requires most. It settles comfortably and does a fine job of replacing sweat losses.

According to the Ohio State University Medical Center dietitian Beth Miller, there is no advantage to drinking sports drinks unless you are exercising for more than a solid hour.

Sports drinks are high in calories. Using them to "replenish" without exercising sufficiently are capable of actually leading to weight gain.

Obesity increases the risk of diabetes and cardiovascular disease and causes severe social and psychological problems in millions of Americans. Between 1971-74 and 1988-94, obesity rates in teenage boys soared from 5% to 12% and in teenage girls from 7% to 11%. Among adults, between 1976-80 and 1988-94, the rate of obesity jumped by one-third, from 25% to 35%. Hence the importance of proper hydration to prevent thirst being mistaken for hunger pangs.

Many beverages, including water, provide water for the body to prevent dehydration. However, many substances in beverages (as opposed to water) have a large effect on how well your body retains this water as well as other side effects. Without listing them all, there are obvious limitations to drinking alcoholic beverages (due to ethanol), soda (due to sugar and synthetics), etc. In addition, there are times due to hot weather or health conditions that preclude the consumption of certain beverages.

When your body enters a state of ketosis it is extremely important during this time to drink plenty of water to flush out the ketones in your system.

Ketones are produced by the liver through metabolism of fatty acids. They are produced to provide a ready energy source from stored lipids at times of low carbohydrate availability. Through ketone bodies are always present in your body, levels increase to meet your extra energy requirements when you are fasting or involved in prolonged exercise. Drinking water assists you to flush out the ketones from your system.

Water also assists in flushing other toxins out of your system, especially in the beginning when your body is still detoxing. Water assists in flushing out your kidneys, which is an extremely

important part of healing. Water also dilutes the bile in the gallbladder. After years and years of low fat diets your gallbladder is not used to working all that hard anymore.

I hope this highlights the importance of water in ALL our everyday lives, especially those of us involved in intense exercise or sports which rely heavily on building muscle tissue which is basically constructed from water and protein.