



Why Is Drinking Water Important?

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Most people take drinking water for granted, but keeping hydrated has a huge impact on overall health. Despite how crucial water is, a significant number of people fail to consume recommended levels of fluids each day. Around 70 percent of the body is comprised of water, and around 71 percent of the planet's surface is covered by water. Perhaps it is the ubiquitous nature of water that means drinking enough each day is not at the top of many people's lists of priorities.

To function properly, all the cells and organs of the body need water. It is also used to lubricate the joints, protect the spinal cord and other sensitive tissues, regulate body temperature, and assist the passage of food through the intestines. Although some of the water required by the body is obtained through foods with a high water content - soups, tomatoes, oranges - the majority is gained through drinking water and other beverages. During every day functioning, water is lost by the body, and this needs to be replaced. It is noticeable that we lose water through activities such as sweating and urination, but water is even lost when breathing.

Drinking water, be it from the tap or a bottle, is the best source of fluid for the body. Beverages such as milk and juices are also decent sources of fluid, but beverages containing alcohol and caffeine, such as soft drinks, coffee, and beer, are not ideal because they often contain empty calories. It was previously thought that caffeinated beverages had diuretic properties, meaning that they cause the body to release water. However, studies show that fluid loss because of caffeinated drinks is minimal.

How much water should you drink?

The recommended amount of water to be drunk per day varies from person to person, depending on factors such as how active they are and how much they sweat. There is no universally agreed upon amount of water that must be consumed daily, but there is a general level of consensus as to what a healthy amount is. According to the Institute of Medicine (IOM), an adequate intake for men is approximately 13 cups (3 liters) a day. For women, an adequate intake is around 9 cups (2.2 liters).

Many people will have heard the phrase, "drink eight 8-ounce glasses of water a day," which works out at around 1.9 liters and is close to the IOM's recommendation for women. Drinking "8 by 8" is an easy-to-remember amount that can put people on the right track regarding water consumption. Remember, all non-alcoholic fluid counts towards this recommendation.

How does not drinking enough affect the kidneys?

Every day, the kidneys filter around 120-150 quarts of fluid. Of these, approximately 1-2 quarts are removed from the body in the form of urine, and 198 are recovered by the bloodstream. Water is essential for the kidneys to function. If the kidneys do not function properly, waste products and excess fluid can build up inside the body.

Untreated, chronic kidney disease can lead to kidney failure, whereby the organs stop working, and either dialysis or kidney transplantation is required.

Urinary tract infections (UTIs) are the second most common type of infection in the body and account for around 8.1 million visits to health care providers in the U.S. every year.

If infections spread to the upper urinary tract, including the kidneys, permanent damage can be caused. Sudden kidney infections (acute) can be life-threatening, particularly if septicemia occurs.

Drinking plenty of water is one of the simplest ways to reduce the risk of developing a UTI and is also recommended to those who have already developed a UTI.

Kidney stones interfere with how the kidneys work and, when present, can complicate UTIs. These complicated UTIs tend to require longer periods of antibiotics to treat them, typically lasting 7-14 days. The leading cause of kidney stones is a lack of water; they are commonly reported in people who do not drink the recommended daily amount of water. As well as complicating UTIs, research has suggested that kidney stones also increase the risk of chronic kidney disease.

In November 2014, the American College of Physicians issued new guidelines for people who have previously developed kidney stones, stating that increasing fluid intake to enable 2 liters of urination a day could decrease the risk of stone recurrence by at least half with no side effects.

Dehydration - using and losing more water than the body takes in - can also lead to an imbalance in the body's electrolytes. Electrolytes, such as potassium, phosphate, and sodium, help carry electrical signals between cells. The levels of electrolytes in the body are kept stable by properly functioning kidneys.

When the kidneys are unable to maintain a balance in the levels of electrolytes, these electrical signals become mixed up, which can lead to seizures, involving involuntary muscle movements and loss of consciousness.

In severe cases, dehydration can also result in kidney failure, a potentially life-threatening outcome. Possible complications of chronic kidney failure include anemia, damage to the central nervous system, heart failure, and a compromised immune system.

Effects on other organs:

Of course, it is not just the kidneys that are affected by a lack of water; below is a small sample of the other negative consequences dehydration can bring:

- Blood is more than 90 percent water, therefore, if water is in short supply, blood can become thicker and increase blood pressure.
- When dehydrated, airways are restricted by the body in an effort to minimize water loss, potentially making asthma and allergies worse.
- The skin can become more vulnerable to skin disorders and premature wrinkling.
- The bowel needs water to function correctly. If dehydrated, digestive problems and constipation can become an issue. Dehydration can lead to an overly acidic stomach which makes heartburn more common and can encourage the development of stomach ulcers.
- Cartilage, found in joints and the disks of the spine, contain around 80 percent water. If dehydration is ongoing, joints can become less good at shock absorption, which leads to joint pain.
- Dehydration can affect brain structure and function. If dehydration is prolonged, cognitive ability is impaired.

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