The Importance of Hydration

Listen to the Cancer.Net Podcast: The Importance of Hydration[1], adapted from this content.

Dehydration occurs when a person does not take in enough fluid or loses too much fluid. Without enough water, the human body cannot function properly. In particular, people undergoing cancer treatment may be at a higher risk for dehydration due to treatment side effects, such as diarrhea and vomiting. Learning how to stay hydrated and recognizing and treating dehydration before it becomes severe are important steps for good health.

Water and the body

Two-thirds of the human body is made up of water. Although it is possible to go for a long time without food, people cannot live without water for more than a few days. Every cell and organ depends on water to perform essential functions. The water in your body performs the following functions:

- Removes waste and toxins
- Transports nutrients and oxygen
- Controls heart rate and blood pressure
- Regulates body temperature
- Lubricates joints
- Protects organs and tissue, including the eyes, ears, and heart
- Creates saliva

Causes of dehydration

The average adult loses more than 10 cups of water every day through natural body functions, such as breathing, sweating, and going to the bathroom. Most people easily replace that fluid through drinking and eating. However, certain conditions affect the body?s ability to stay well hydrated, requiring a conscious effort to take in more water. In fact, thirst is not a sufficient measure because a person may be dehydrated and not feel thirsty. Causes of dehydration include the following:

Diarrhea, nausea, and vomiting. People undergoing cancer treatments, such as chemotherapy, may experience these symptoms, which increase dehydration risk.

Fever. A high fever can result in dehydration. Patients undergoing cancer treatment may be at risk for infections, and a fever is usually a sign of infection.

Age. Infants, children, and older adults are at greater risk for dehydration. Although young children don't weigh much, they pass water and electrolytes (minerals that help regulate the body) out of the body frequently. They also are likely to get diarrhea, a common childhood illness. Meanwhile, as a person gets older, the body slowly loses the ability to conserve water. Older adults are also at risk because they are less likely to sense that they are thirsty and may not eat or drink enough, especially if they live alone. Illnesses, disabilities, and certain medications can also contribute to dehydration.

Other chronic illness. Many diseases, such as diabetes, cystic fibrosis (a disease in which thick mucus affects the lungs and digestive system), and kidney disease, increase dehydration risk and/or need for fluids. For example, people with uncontrolled diabetes urinate frequently. Also, some medications can cause a person to urinate or sweat more than normal.

Environment. Living, working, and exercising in a hot or humid environment increase the need for fluids. People living at high altitudes (from 8,000 feet to 12,000 feet) also need more fluids because their bodies lose water as they work to take in more oxygen.

Exercise. Everyone loses water through sweat, and people who engage in physical activity generally produce a significant amount of sweat. Even if you don't see sweat, you are likely sweating. The more you exercise, the more fluid replacement you need.

Other factors. Women and overweight or obese individuals are at greater risk for dehydration.

Dehydration symptoms

Dehydration is cumulative, meaning the longer you go without enough fluids, the more dehydrated you will become. Although thirst is one way your body alerts you to drink more, other symptoms of dehydration include the following:

- A dry or sticky mouth or a swollen tongue
- Fatigue, weakness

- Irritability
- Dizziness, lightheadedness
- Nausea
- Headaches
- Constipation
- Dry skin
- Weight loss
- Dark yellow urine or a decrease in urination

Severe dehydration, which can be life-threatening and needs immediate medical treatment, can cause the following symptoms:

- Extreme thirst
- Fever
- Rapid heartbeat
- Lack of urination for more than eight hours
- Sunken eyes
- Inability to sweat
- Inability to produce tears
- Low blood pressure
- Disorientation or confusion

Staying hydrated

The amount of fluid needed each day to stay hydrated can differ based the person?s health and lifestyle. Talk with your doctor to learn how much water you should be drinking. The following tips can help you keep your body's fluid balance in check.

Drink lots of fluids. Drinking at least eight cups of water each day is a good rule of thumb, according to the American Dietetic Association. However, if you have any risk factors for dehydration, you should drink more. If you dislike plain water, try drinking a flavored water or adding a slice of lemon. Other fluids, such as juice and tea, contribute to your fluid count, as well.

Eat foods with high water content. While drinking water is the best source of hydration, many foods contain water and can help replenish lost fluids. Choose foods like lettuce (95% water), watermelon (92% water), and broccoli (91% water). Soups, popsicles, and yogurt also have high water content.

Get help managing side effects. If you are undergoing a treatment, such as chemotherapy, that is causing nausea, vomiting, or diarrhea, talk with your doctor about ways to prevent or minimize these side effects.

Don't wait to drink. Make a conscious effort to drink enough on a regular basis and more often when you begin feeling ill, before you exercise, or before you go out into hot weather. Ensuring that you are well hydrated before you lose water can help reduce your risk for dehydration.

Avoid foods and drinks that may contribute to dehydration. Beverages with sugar and/or caffeine (such as fruit juice, soda, and coffee) may help to hydrate some, but they are not as effective as low-sugar or low/non-caffeine beverages.

Treating dehydration

If you are experiencing side effects from cancer treatment or an illness and find it hard to take in and keep down water and food, it can be difficult to replace the water your body has lost. Try these tips to address mild dehydration:

- Suck on ice chips or popsicles if you are having trouble drinking water or eating.
- Apply moisturizer to cracked lips and medication to mouth sores so that drinking and eating is less painful.
- If you are able to drink, take in small amounts frequently instead of a large amount at one time; drinking too much fluid at once may cause vomiting.
- Keep a water bottle with you at all times, and sip throughout the waking hours.
- Drink a large glass of water before bed and when you awake each morning.
- If you have diarrhea, be sure to select beverages that have sodium and potassium to help replace these losses in stool.
- If you have fatigue, keep ice and drinks within reach so you don't have to get up more often than necessary.

If your symptoms become severe, visit your doctor immediately. In some cases, intravenous (IV) fluids or hospitalization may be necessary. Your doctor may also perform tests to determine the extent of dehydration and to find out what is causing your fluid loss.

More Information

Managing Side Effects [2]

Side Effects of Chemotherapy [3]

Additional Resources

MedlinePlus: Dehydration [4]

Links:

[1] http://www.cancer.net/sites/cancer.net/files/Importance_of_Hydration.mp3
[2] http://www.cancer.net/node/25238
[3] http://www.cancer.net/node/24676
[4] http://www.nlm.nih.gov/medlineplus/ency/article/000982.htm