



Healthy hydration combines fluids and water-packed foods

Water is important for good health, but good hydration is much more than drinking plenty of water. The goal is not just to drink lots of water, but rather to maintain a balanced amount of water in the body and maintain a normal state of hydration. It is important to understand that water is an essential nutrient and comes from both food and water sources.

Question: Why is water balance important?

Answer: Just about every body function is dependent on the concentration of chemicals in our body water. Examples include maintaining normal blood volume and flow, digesting foods, keeping joints lubricated, etc.

Q: How much water is needed daily?

A: For adult men, the Institute of Medicine recommends about 13 cups of water per day from a variety of beverages, and nine cups a day for women. This assumes additional water is obtained from food. However, these are very general recommendations and water needs can vary greatly with body size and physical activity.

Q: How much additional water is needed due to exercise?

A: Sweat production and breathing increase water loss. A typical

sweat rate while jogging is 1.5 quarts per hour. However, this can vary greatly, going up or down with the intensity of the exercise, environmental temperature and a person's size. The best way to estimate personal water needs during exercise is to measure the amount of weight lost after exercising. A pound of weight loss equals 16 ounces (a pint, half a quart, or roughly half a liter). So, a 3-pound loss during an hour of exercise would represent the loss of 1.5 quarts of water.

Q: What helps the body rehydrate after exercise?

A: Consuming foods that contain carbohydrate, protein, sodium and/or potassium helps the body hold on to the water consumed. Stored carbohydrate (glycogen) in the liver and muscles holds about three times its weight in water. A carbo-loaded athlete will store about a pound of glycogen along with 3 pounds of water. Adequate protein also helps the body hold on to normal amounts of water, especially in the blood.

Most athletes know that sodium is lost in sweat and that low blood sodium can develop in very long-endurance exercise events, especially when too much water is consumed. This is very dangerous,

initially causing headaches, nausea, confusion and muscle cramps, and, if severe, it can cause death. Both salt (for sodium) and sources of potassium can help the body hold water when rehydrating after exercise. Good sources of both sodium and potassium include vegetable juices and baked, salted potato products. Other handy sources of potassium include bananas and orange juice.

Q: What other factors increase water needs?

A: In addition to heat, wind exposure can increase water loss through unnoticed sweat evaporation. Those prone to getting kidney stones need plenty of water, especially when they regularly consume high-oxalate foods like quinoa, spinach, taro, etc. Alcohol and caffeine can increase urine flow and slightly increase water needs.

Q: What can I consume that contains water?

A: Beverages and most fruits and vegetables contain between 85 and 100 percent water. Animal foods and grain products generally contain between 40 and 70 percent water, and crackers and dry snack foods provide almost no water. To stay adequately hydrated, include both fluids and a variety of water-containing foods.

Joannie Dobbs, PhD, CNS and Alan Titchenal, PhD, CNS
are nutritionists in the Department of Human Nutrition, Food and Animal Sciences,
College of Tropical Agriculture and Human Resources, UH-Manoa.
Dr. Dobbs also works with the University Health Services Manoa.

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