

Can Dehydration Affect Our Mood?



Water is by far the number-one nutrient in our diet. Studies have suggested that proper hydration may lower our risk of heart disease and cancer, and may even make us better kissers. Brushing artificial skin against the lips of young women, researchers found that hydrated lips showed greater sensitivity to light touch.

Although it is well known that water is essential for human survival, it's only recently that we have begun to understand its role in the maintenance of brain function. It makes sense. Our brain is 75% water. When we get dehydrated, our brain actually shrinks. Even mild dehydration, which can be caused by simply exercising on a hot day, has been shown to change brain function.

I've talked about the role of hydration for cognitive function in *Does a Drink of Water Make Children Smarter?*, but current findings suggest that our mood states may also be positively influenced by water consumption.

The effects of dehydration in real life have not been not well documented. It wasn't until 2013 that the first study to investigate the effects of mild dehydration on a variety of feelings was published. What did the researchers find? The most important effects of fluid deprivation were increased sleepiness and fatigue, lower levels of vigor and alertness, and increased confusion. But as soon as they gave the subjects some water, the deleterious effects on alertness, happiness, and confusion were immediately reversed.

Water absorption actually happens very rapidly, within 5 minutes from mouth to bloodstream, peaking around minute 20. Interestingly, the temperature of the water appears to affect this speed. Which do you think is absorbed more rapidly—cold water or warm, body temperature water? It turns out cold water gets sucked in about 20% faster!

How can we tell if we're dehydrated or not? Well, why don't we ask our bodies? If we chug down some water and then turn around and just pee it all out, presumably that would be our body's way of saying, "I'm good, all topped off." But if we drink a bunch of water and our body keeps most of it, then presumably our tank was low. Researchers from the University of Connecticut formalized the technique. You empty your bladder, chug down 11 milliliters per kilogram of body weight (about 3 three cups of water for an average-sized person) and then an hour later see how much you pee. Basically, if you drink 3 cups and pee out less than 1, there's a good chance you were dehydrated.

Written by Michael Greger M.D. FACLM on September 12th, 2017