

HIT THE COURT, BUT NOT THE WALL

By Deb Goldman

Healthy, Sedentary Women ages 19 to 50 are adequately hydrated when they consume 91 ounces

New findings are throwing cold water on traditional hydration tips. Contrary to popular belief, you don't need to drink eight glasses of water a day. What you do need is the equivalent of eight glasses a day, but the H₂O can come from other types of beverages (even caffeinated ones!) and food, particularly fruits and vegetables.

A panel of experts from the Institute of Medicine of the National Academies of Sciences recently determined that healthy, sedentary women ages 19 to 50 are adequately hydrated when they consume 91 ounces of water a day, about 80 percent from beverages including water, juice, coffee, tea, etc. (approximately nine 8-ounce glasses) and 20 percent from food. For men, the total jumps to 127 ounces.

This may sound strange because for years we've heard that caffeinated beverages can actually contribute to dehydration. But a University of Nebraska study challenges that notion. Twenty-seven volunteers were split into two groups. One group was given water along with other non-alcoholic beverages. The other group was given equal amounts of juice, coffee, and regular and diet soft drinks, but no water. After three days, researchers found no differences in hydration among the study participants.

Likewise, the belief that dehydration can kick in before we even feel thirsty is being debunked. A study by a nutritionist at Pennsylvania State University indicated that drinking when thirsty keeps the majority of individuals adequately hydrated.

Hydration Needs Change with Exercise

The exception to all of this, however, is exercise. When you exercise, your hydration requirements change, and you need to take special precautions to avoid dehydration. The American College of Sports Medicine provides the following recommendations for exercising in hot weather:

- **Drink 20 ounces of water or sports drink** two-to-three hours before you exercise
- **Drink another 10 ounces** 15 minutes before your work out.
- **Drink 10 ounces** every 15 minutes throughout your work out.
- After your workout, **drink 20 ounces** for every pound lost. (Requires weighing yourself before and after exercise.)

Bear in mind that individuals respond quite differently to exercise. While the guidelines provide a good starting point, you still need to monitor your own physical response and adjust your fluid intake accordingly, especially when it is hot and/or humid. Finally, do not rely on thirst as an indicator when you are exercising.

When temperatures rise into the high 70s and above, don't expect your typical performance. Humidity will also take its toll on your perceived level of exertion and your body's ability to cool itself adequately. So don't worry if it takes a little longer to run the length of the court or to sustain your usual level of intensity. Wear appropriate clothing, such as loose-fitting, lightweight fabrics that wick moisture away from your skin. Leave the t-shirts at home and wear a basketball shirt.

Heat cramps are the first indication that you're overheating. Your muscles tighten and cramp when your fluid and sodium levels drop. Drink water and/or a sports drink immediately.

Heat exhaustion occurs when your body can't deliver enough blood to your brain, skin and muscles, resulting in dizziness and exhaustion. Stop exercising, sip water and lie down in a cool shaded area until you feel better.

If your skin becomes hot, red and dry and your body temperature soars, you may be experiencing heat stroke. In addition to the symptoms listed, you may become disoriented or confused. When body temperature rises above 105 degrees, individuals may pass out, experience convulsions and even incur permanent brain damage or death. The best preventive measure is to avoid intense exercise in the heat.

One last caveat, it is possible to consume too much water, and it can be deadly. Excessive amounts of water can lead to hyponatremia, a condition in which too much water leads to a dangerously low sodium ratio. Hyponatremia can cause brain cells to swell with water, leading to confusion, seizures, coma and even death.

Symptoms of hyponatremia include dizziness, fatigue, disorientation, and nausea. Unfortunately, these are common symptoms of dehydration as well, so a proper diagnosis can be tricky. An easy solution is to consume a sports drink that contains sodium, in addition to consuming water, to help keep your sodium levels in proper balance.

After your workout, keep your water bottle handy so that you can replenish lost fluids as you cool down and stretch your muscles. This is also the optimal time to stretch, because your muscles are warm and pliable, allowing you to improve flexibility more easily and even reduce or avoid post-workout soreness.

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