

Rethinking hydration needs

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Athletes are bombarded with information about the importance of consuming fluids. They get it from coaches, trainers, nutritionists, and especially from companies that sell bottled water and sports drinks. Sometimes, the information is accurate, but, in other cases, it can be inaccurate, misleading or both. Let's examine some of the most common myths about water and other fluids, starting with the most popular of them all.

1. Everyone should drink eight glasses of water per day.

This is an oversimplified approach, it doesn't take into account individual needs, and may not even be necessary. No one is certain about where that formula originated. The science behind the statement is missing.

"Eight glasses (or less) might be adequate for sedentary people," says Nancy Clark, M.S., R.D., author of Clark's Sports Nutrition Guidebook. "But it is probably too little for many athletes."

Clark suggests that you replace water depending on the amount of exercise in which you engage. A general rule is to take in about one quart for every 1,000 calories expended. If that is too difficult to monitor, use these guidelines: seven to 20 ounces two to three hours before strenuous exercise; seven to 10 ounces 10 to 20 minutes before exercise; seven to 10 ounces every 15 to 20 minutes during exercise; and 16 ounces after exercise for every pound lost.

2. Sport drinks are only needed for athletes who exercise for more than 90 minutes at a time.

Not according to Chris Rosenbloom, Ph.D., R.D., associate editor of the Georgia Tech Sports Medicine & Performance Newsletter. "Before the explosion of research in the 1990s on fluid needs of athletes prior to, during and after exercise, it was commonly believed that water was sufficient for fluid replacement. Several studies by respected researchers have documented the critical role of well-formulated sports drinks for athletes who exercise for less than 90 minutes, for those who exercise in hot, humid environments, and for those involved in 'stop-and-go' sports such as basketball and soccer."

3. Fruit juices are just as effective as sports drinks for replacing fluids.

Adds Rosenbloom, "Fruit juices have a high percentage of carbohydrate, which slows down the absorption rate. If you are going to drink juices, their best use is for replenishing glycogen, and they are nutritious as a beverage with meals"

4. Any non-caffeinated fluid counts as water.

"No," says Susan Kleiner, Ph.D., R.D., author of Power Eating. "There is an emerging body of research evidence pointing toward positive health effects from drinking at least five to six cups of water per day. Observational data that has controlled for all other health behaviors has shown that men and women who drink that amount significantly decrease their risks for colon cancer, cancers of the urinary tract (especially the bladder), and possibly hormone-related cancers, such as breast cancer."

5. Any amount of caffeine is dehydrating.

"No, again," repeats Meiner. "Recent research points toward the equivalent of about two to three cups of caffeinated beverage having little or no diuretic effect. Other research on six cups of coffee per day (642 mg/day) shows a clear dose response of a diuretic effect leading to a three percent loss of body water and about one percent loss of body weight in fluid."

6. You can't drink too much fluid.

Yes, you can. It happens rarely and is more likely to affect marathon runners and hikers. Twenty-one runners out of the 5,082 race finishers of the 2000 Houston Marathon developed hyponatremia, a condition in which the sodium concentration in the blood drops because there is too much water in the bloodstream and not enough excretion of water in the urine. Fourteen of these runners had significant hyponatremia and required hospitalization, according to a Reuters news report.

7. Let thirst be your guide to hydration.

Thirst is an unreliable mechanism to determine fluid needs. "Athletes voluntarily replace only two-thirds of sweat losses," says Clark, who is one of the country's most respected sports nutritionists. "Drink according to a schedule, not by thirst." During heavy exercise, the thirst mechanism grossly underestimates the body's need for water.

8. Beverages that contain glycerol enhance athletic performance.

The positions of the American Dietetic Association and the National Association of Athletic Trainers are that there is not enough evidence to endorse the practice of adding glycerol to fluids as a means of enhancing performance. Not only that, but the ingestion of glycerol can have side effects, such as headaches, lightheadedness and bloating.

9. Drinking milk causes stomach cramps.

Not unless you are lactose intolerant. Low-fat milk is digested fairly easily, although it is not a great pre-exercise beverage.

10. Beer is a good sports drink.

You wish. It's a terrible sports drink because (1) it has a dehydrating effect, (2) it can adversely affect performance, and (3) it is a poor source of carbohydrates.

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