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DECEMBER 2007

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Fitness Q&A

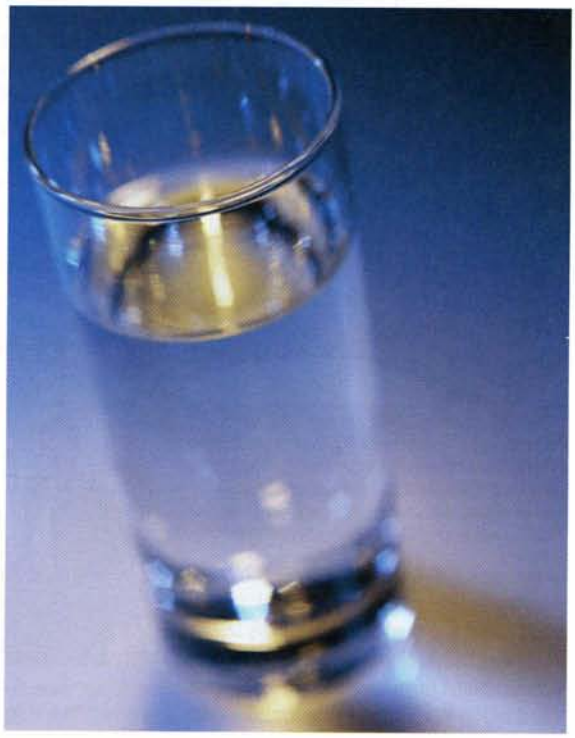
BY MATT BRZYCKI

Do people really need to drink eight glasses of water per day?

One of the most oft-repeated bits of health advice is that people should drink at least eight 8-ounce glasses of water — one-half gallon — on a daily basis. Moreover, proponents of the so-called "8x8 Rule" state that other fluids don't count toward this goal.

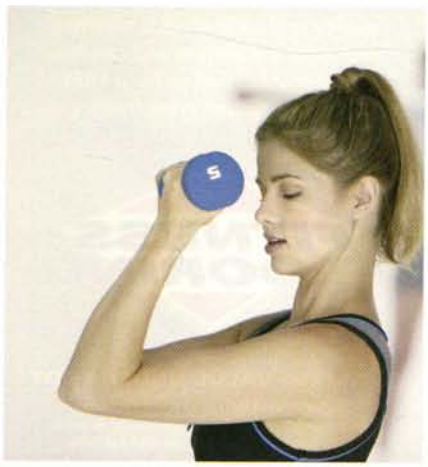
A high intake of water appears to be beneficial in reducing the risk of several conditions, including bladder cancer, colorectal cancer and heart disease. And, of course, water has several physiological functions, such as regulating body temperature (which helps keep individuals from overheating). Be that as it may, there's no scientific evidence that people need to drink eight 8-ounce glasses of water each day (or any other specific amount, for that matter). The volume of water that's needed can vary greatly from one person to the next, based on factors such as age, size, fitness level, level of activity and environmental conditions.

And let's not forget that many foods and beverages — most notably milk, fruits, fruit juices, vegetables, sport drinks and soup — are high in water and, thus, can be counted toward the daily total. Clearly, it's important to consume adequate amounts of fluids, but this eight-glasses rule doesn't hold any water. FM



Do multiple sets of an exercise use more calories than single sets?

Intuitively, it would seem true that a greater number of calories are used when comparing multiple sets to single sets. And, according to the research, this is indeed true — but there's more to the story. In one study, 15 women (average age 24) completed two protocols: One in which they performed one set of nine exercises using their eight-repetition maximum to the point of muscular fatigue, and the other in which they used the same protocol, but performed three sets of each exercise (in a "circuit" fashion). In both protocols, the subjects were given 90 seconds of recovery between each set.



In the one-set protocol, the subjects performed an average of 100.7 repetitions in 21.3 minutes; in the three-set protocol, the subjects performed an average of 269.1 repetitions in 63.1 minutes. The total caloric expenditure during the three-set protocol was significantly greater than that of the one-set protocol. This is no surprise, of course, since the three-set protocol involved about three times as much volume of training as the one-set protocol. But here's the thing: During the first 20 minutes of the workout, the caloric expenditure of the two protocols was nearly identical. And, when the total caloric expenditure was divided by the number of minutes in the workout, the one-set protocol had a slightly higher rate of caloric expenditure than the three-set protocol. FM

Does the consumption of carbohydrates help with workout recovery?

The predominant source of energy during intense activity are carbohydrates, which circulate in the bloodstream as glucose and are stored in the liver and muscles as glycogen. After a workout, then, it makes sense to consume foods that are high in carbohydrates. These foods help to replenish the depleted stores of glycogen and expedite recovery.

According to Nancy Clark, an internationally known sports nutritionist and author, 0.5 grams of carbohydrates should be consumed per pound of bodyweight (g/lb) within two hours of completing an intense activity. This should be repeated again within the next two hours. For example, a 200-pound individual needs to ingest about 100 grams of carbohydrates within two hours after an intense activity, and another 100 grams of carbohydrates during the next two hours.

There's some evidence to suggest that combining carbohydrates with a small amount of protein can expedite recovery by improving the rate at which the glycogen stores are replenished. However, studies have shown that simply increasing the quantity of post-activity carbohydrates will have the same results. Nonetheless, consuming a small amount of protein following an intense activity may aid in the repair of muscle tissue. FM

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