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Q&A

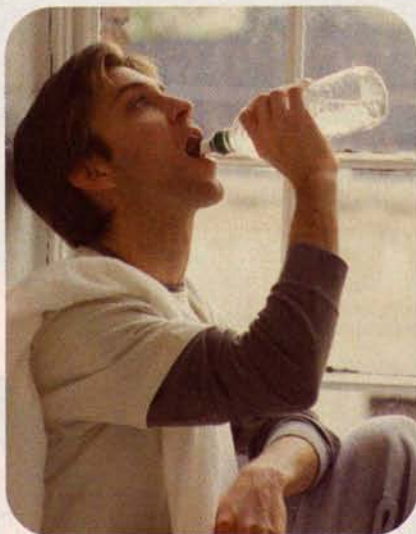
[BY MATT BRZYCKI]

Is bottled water significantly better than tap water?

Everyone assumes bottled water is more pure than tap water. After all, it costs much more. But is it really much better? One study compared the fluoride levels and bacterial content of commercially bottled water to that of tap water in Cleveland, Ohio. Researchers examined 57 samples of five categories of bottled water that were purchased from local stores. (The five categories were spring, artesian, purified, distilled and drinking.) They also examined 16 samples of tap water that were collected from four local water-processing plants. (Four samples were taken from each plant on unannounced visits.)

Only 5 percent (three of 57) of the samples of bottled water contained fluoride levels that were in the recommended range for drinking water as required by the state of Ohio. Meanwhile, 100 percent of the samples of tap water were in the recommended range. In terms of bacterial count, 15 samples (26 percent) of bottled water had significantly more bacteria than tap water. Compared to the average bacterial count of the tap water, six samples (11 percent) of bottled water had at least 1,000 times the bacteria of tap water. One sample of bottled water contained nearly 2,000 times that of the most contaminated sample of tap water.

But what about taste? Surely bottled water must taste better. In a survey of 2,800 people in England, 60 percent couldn't tell the difference between bottled water and tap water. It's also interesting to note that the Natural Resources Defense Council tested more than 1,000 samples of 103 brands of bottled water and found that "an estimated 25 percent or more of bottled water is really just tap water in a bottle." Perhaps bottled water is all wet. **FM**



In a survey of people in England, 60 percent couldn't tell the DIFFERENCE between bottled water and tap water.

Why isn't it possible to selectively reduce fat from specific areas of the body?

In exercise physiology parlance, the belief that exercise can produce a localized loss of body fat is known as "spot reduction." The reason why people cannot selectively lose fat from an isolated area is that, when they exercise, fat (and carbohydrate) is drawn from throughout the body as a source of energy — not just from one specific area. So, a person can perform an endless amount of abdominal exercises, for example, but these efforts will not automatically trim the mid-section.

A litmus test for evaluating the notion of spot reduction is to examine whether a significantly greater change occurs in an active or exercised body part compared to a relatively inactive or unexercised body part. In one study, researchers evaluated the effects of a 27-day sit-up program on the fat-cell diameter and body composition of 13 subjects. Over a four-week period, each subject performed a total of 5,004 sit-ups (with the legs bent at a 90-degree angle and no foot support). Fat biopsies from the abdominal, subscapular and gluteal sites revealed that the sit-up program reduced the fat-cell diameter at all three sites to a similar degree. In other words, exercising the abdominal muscles didn't preferentially affect the fat in the abdominal area more than the gluteal or subscapular areas. **FM**

Will I weigh less after standing on my head?

As ridiculous as it may sound, this tall tale has been circulating for years. The notion probably has its roots in the wrestling community, where "tricks of the trade" are shared among coaches and athletes for "making weight." Recently, it has been making its rounds on the Internet. The anecdote goes something like this: If I weigh myself on a scale and then stand on my head, I'll weigh less when I step back on the scale. It's a question of common sense: If this is true, where does the weight go? It certainly doesn't vanish into thin air. For something such as this to actually occur, it would have to break the laws of thermodynamics. **FM**

Do you have questions that you need answered? Email them to edit@fitnessmgmt.com.



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