

# Bottled water or tap: Who can tell?

**“Bottled water may be no safer or healthier than tap water while selling for up to 1,000 times the price.”**

— Report from the World Wildlife Fund International

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Photos by John Strickler/The Mercury

**Pottstown water customers received shipments of free bottled water in November from Nestle Waters of North America, Inc. in Allentown, shown above and at right, being unloaded at Goodwill Fire Company. A processing error at the Pottstown Water Treatment Plant meant the water coming from the tap could have been unsafe, but no contamination was ever found.**

Find, among 10, the glass of water that came from the tap.

With no labels, no telltale bottles, no hint of which was which, a group of people gathered this summer by columnist Tom Standage were asked to taste-test water and pick the sample that came from the tap.

Only one person got it right.

Standage's point was that water from the tap is as safe as or safer than bottled water and, as his demonstration suggested, most people only think they can taste the difference.

His results mirrored that of a taste test in 2001 on ABC's "Good Morning America."

In that blind taste test, 12 percent preferred Evian, 24 percent Poland Spring and 45 percent, New York City tap water.

Consider that in March, British authorities began an investigation into whether "pure" labels on bottles of Dasani water were practicing false advertising because it turned out to be tap water from a Coca-Cola factory in southeast London.

The second-best seller in the American bottled water market, Coca-Cola says Dasani uses a sophisticated filtration system developed by NASA to purify liquids on spacecraft, and then adds calcium, magnesium and sodium bicarbonate "for taste" according to [CNN.com](http://CNN.com)

In fact, according to Co-op America, "as much as 40 percent of bottled water is actually bottled tap water, sometimes with added treatment, sometimes not."

The group found that Aquafina, the number one bottled water brand, made by Pepsi-Cola, comes from municipal sources like Wichita, Kan., while here in America; Dasani comes from sources in Queens, N.Y. and Jacksonville, Fla.



But taste aside, is it safer?

Bottled water users are twice as likely as others to cite health as the reason behind their choice of beverage, according to a report issued last year by the World Wildlife

Fund International in Switzerland. Many bottled water brands infer they are healthier by associating their product with natural elements and images.

One study found that a source of bottled "springwater," complete with a label of a lake surrounded by mountains, was an industrial parking lot next to a Massachusetts hazardous waste site.

Last year the World Wildlife Fund International report concluded "bottled water may be no safer or healthier- than tap water while selling for up to 1,000 times the price."

Water utilities monitor for 103 contaminants and must comply with standards on 80 of the most harmful.

Tap water must be disinfected and tested for microbial contaminants like cryptosporidium, giardia and viruses. Bottled water, which is regulated by the Food and Drug Administration as a packaged food, has no such requirements.

Those rules have fewer health standards than the Environmental Protection Agency, which, through the Safe Drinking Water Act, regulates municipal water supplies, according to a four-year study by the Natural Resources Defense Council.

For example, the NRDC found that FDA rules exempted water packaged and sold in the same state, which accounts for between 60 to 70 percent of the bottled water sold in the U.S.

Bottled water is required to be tested less frequently than city tap water for bacteria and chemical contaminants and also allow some contamination by E. coli or fecal coliform bacteria, which indicate possible contamination with fecal matter.

Tap water has no such exception.

The NRDC tested more than 1,000 bottles of 103 brands and while most tested were found to be of high quality, about one-third contained levels of contamination — including synthetic organic chemicals, bacteria and arsenic.

This is not to say tap water is always pure.

The most common contaminants, according to the Environmental Quality Institute at the University of North Carolina-Asheville are as follows:

- **Lead:** About 20 percent of lead exposure comes from lead pipes, solder or brass faucets. Even a tiny exposure can cause neurological damage like ADD, which can take years to manifest. It can be flushed by running the water for a minute in the morning before drinking, or by installing a filter.
- **Arsenic:** Even at levels allowed by EPA, the consumption of arsenic-tinged water over a long period of time poses a higher cancer risk than any other contaminant EPA allows in water. Risk is greater in the southwest and northwest and from wells, which should be tested regularly. A filter can take care of the problem.
- **Disinfection:** Chlorine is the most common disinfectant, but ironically, something used to make water safer can sometimes combine with organic matter, like leaves, and form a carcinogen. It's dangerous only if large amounts of contaminated water are consumed over long periods of time. Letting a pitcher of water sit for five or six hours, or getting an activated charcoal filter, reduces the risk.

Perhaps it is because of things like this, or the cryptosporidium outbreak in Milwaukee that killed 100 people and the threat of which shut down the Pottstown water system for three days last year, that people turn to bottled water.

Americans spent more than \$7 billion annually on bottled water last year.

Co-op America estimates the nation spends about \$10,700 on bottled water every minute.

World-wide, it is estimated to be a \$50 billion-a-year industry. France alone has 350 different brands of bottled water.

For the price of one bottle of Evian, a person could use about 1,000 gallons of tap water.

More important than proving that his friends couldn't tell the difference between bottled and tap water, Standage wrote in the New York Times column that described his taste test, was the fact that despite America having one of the best water systems in the world, the money spent on bottled water worldwide could have supplied clean drinking water to most of the third world, thus saving millions of lives.

More than 1 billion people lack reliable access to safe drinking water around the world and the World Health Organization estimates that 80 percent of all illnesses in the world are due to waterborne disease.

Clean water could be provided to everyone on Earth for an additional \$1.7 billion a year beyond current

water projects, wrote Standage, who is the author of “The History of the World in Six Glasses” and an editor at “The Economist” magazine.

Providing that water and proper sanitation — another \$9.3 billion — costs “less than a quarter of global annual spending on bottled water,” he wrote.