

Bottled Water vs. Tap Water: Which One Is Better?

Do people who drink bottled water know something that tap water drinkers don't?

By Elaine K. Howley, Contributor July 5, 2019

WE HEAR IT SO OFTEN – water does a body good. The Centers for Disease Control and Prevention reports that water helps your body "keep your temperature normal, lubricate and cushion joints, protect your spinal cord and other sensitive tissues and get rid of wastes through urination, perspiration and bowel movements." In short, adequate hydration helps your body do what it needs to do every day.

In pursuit of that [proper hydration](#) goal, bottled water has become a multi-billion-dollar industry. The International Bottled Water Association, a trade group representing bottlers and distributors of packaged water, reports that the industry produced nearly 13 billion gallons of bottled water in 2016, "an increase of nearly 9%" over 2015 figures, the most recent data available. Bottled water is now the largest beverage category by volume in the U.S., the group reports, with wholesales nearing \$16 billion in 2016.



(GETTY IMAGES)

Meanwhile, the vast majority of Americans have access to a municipal water supply. This is the water that comes out of the tap in the kitchen, and for lots of people, it's their primary source of drinking water. Many of us drink it and use it while cooking every single day, but do people who use bottled water know something that tap water drinkers don't? Namely, does bottled water confer specific health benefits over tap water, or is it safer? And which is better?



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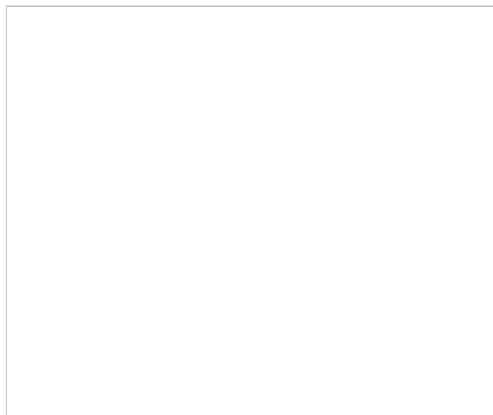
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Tasha Stoiber, senior scientist with the Environmental Working Group, says, "We don't recommend using bottled water unless it's in the case of an emergency or something has gone very wrong, like in the case of Flint, Michigan, where there's no safe water for anyone to drink." The issue Stoiber references in Flint began in 2014 when the city switched the source of its drinking water to save money while the city built a new water pipeline. Water from the new source, the Flint River, was found to have dangerous levels of lead, iron, bacteria and other contaminants, leading to a slew of lawsuits and a moratorium on residents using municipal water.

Residents were advised to switch to only bottled water, creating significant hardship for many, particularly low-income or less mobile residents. The problems in Flint are ongoing, and residents are still using bottled water there. Similarly, after a natural disaster, "like a hurricane, that would be a situation where bottled water would be your last resort or maybe only choice for clean drinking water," Stoiber says.

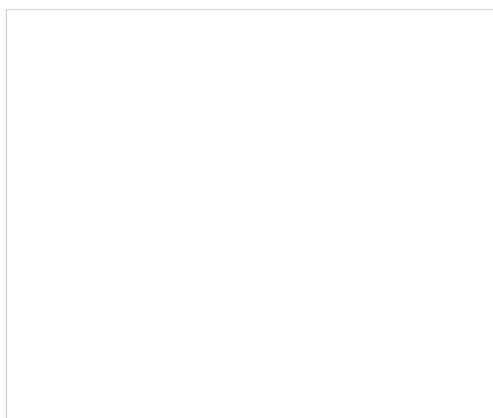


[[SEE: How to Stay Hydrated This Summer.](#)]

Examining the Pros and Cons of Bottled vs. Tap

Cathy Leman, a registered dietitian nutritionist and founder of Dam. Mad. About Breast Cancer, a nutritional consulting firm aimed at helping breast cancer patients and survivors, says bottled water comes with several pros and cons. On the benefits side, bottled water gives you the "ability to stockpile for emergency use," and it's convenient and portable, making it "readily, easily accessible most anywhere." Because the bottles are sealed in sanitized packaging, there's typically a reduced chance of contamination and many people say it tastes better.

On the drawback side, that same plastic that seals bottled water uses a lot of petroleum, which raises environmental concerns and causes a "negative environmental impact," Leman says. Discarded one-time-use plastic water bottles turn up everywhere, potentially threatening wildlife, and as it breaks down in the environment, it finds its way into the food chain and eventually into our bodies.



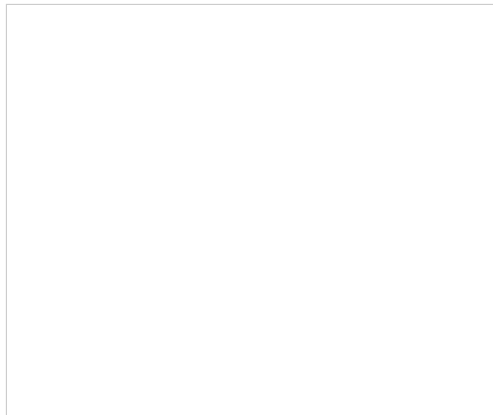
The plastic used to make these single-use water bottles also contains [chemicals](#) called [endocrine disruptors](#) such as bisphenol A, better known as BPA. BPA and other endocrine disruptors alter the way the body makes and uses certain hormones, which could have negative health consequences. [BPA exposure has been linked to breast cancer](#) and other health problems. And because there's "no mandatory testing program in place, the quality of bottled water can be questionable," Leman says. Bottled water is also "more expensive than tap water and it takes more energy to produce," not to mention the environmental concerns associated with distributing and marketing it.

By comparison, tap water is "inexpensive and monitored by the EPA," she says. Despite that testing, sometimes contaminants can infiltrate water systems, and the water can become "contaminated with microorganisms, nitrates and/or minerals like lead or mercury." Similarly, after a natural disaster such as a [hurricane](#) or in an emergency situation, the safety of municipal drinking water can be compromised. Even when the water is safe to drink, sometimes it can smell or taste unpleasant.

Is There a Nutritional Difference?

Considered an essential nutrient because the body needs more of it than it can produce on its own, water is vital to how our bodies function. It also accounts for some 50% to 80% of body weight depending on an individual's body composition. Water contains zero calories, zero carbs, zero grams of protein and zero fat. It contains no organic nutrients, but can sometimes have trace amounts of dissolved minerals or contaminants in it, depending on its source.

When it comes to the nutritional profile of what's in your cup, there shouldn't be any difference between bottled and tap water, right? Water is water. Or is it? "Some bottled water contains added nutrients, such as vitamins, electrolytes like sodium and [potassium](#), calcium, magnesium and [amino acids](#)," Leman says. If you drink bottled water, check the label to understand what else might be in there besides just water.



[[SEE: 13 Health Superstitions to Reconsider.](#)]

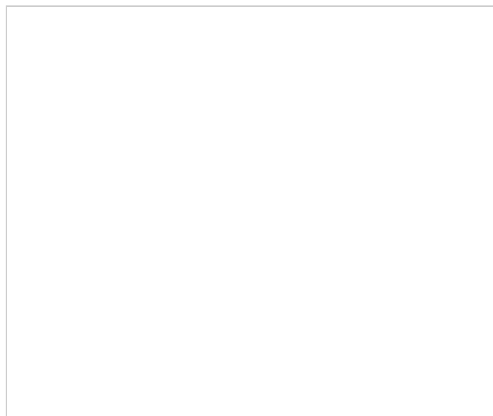
Is There a Health Difference?

In 1974, Congress enacted the Safe Drinking Water Act, a federal law that ensures the quality of Americans' drinking water. This law authorized the Environmental Protection Agency to "set [national standards](#) for drinking water to protect against health effects from exposure to naturally-occurring and man-made

contaminants" in public water systems. This law helped improve the safety of public sources of drinking water, and the EPA continues to oversee more than 150,000 public water systems across the U.S. that serve more than 300 million people.

But still, problems can crop up. Many water systems have aging infrastructure, and an older network of pipes and connections means that contaminants may more easily find their way in. And when accidents or natural disasters occur, such as what's happened in Flint, that can render public water sources unsafe and unusable, forcing residents to switch to bottled water.

In addition, the CDC reports that for some people with compromised immune systems, bottled water may be a better option: "In healthy individuals, the parasite *Cryptosporidium* can cause illness; however, for those with weakened immune systems, it can cause severe illness and possibly death." *Cryptosporidium* is a single-celled parasite that lives in water and can cause a severe diarrheal disease called cryptosporidiosis. The organism can sometimes be found in drinking water or swimming pools. Therefore, if you are immunocompromised, you may want to opt for bottled water. But you should also check the label or the company's website to find out how its water is treated. Reverse osmosis, distillation and filtration with an absolute 1-micron filter can all protect against *Cryptosporidium*.



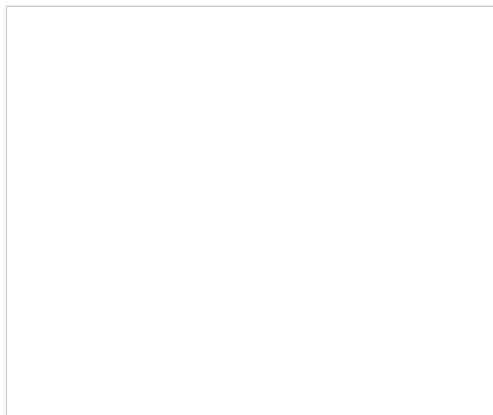
Tap water also typically contains fluoride, which is added during the treatment process. Fluoride is a naturally occurring mineral that's been shown to strengthen tooth enamel, and it's found in most commercially available toothpastes and mouthwashes. Because it's long been considered a safe compound that has demonstrable health benefits, it's often added to municipal water supplies. However, very large doses of fluoride can cause side effects, such as white spots on the teeth and a condition called skeletal fluorosis, which may cause joint pain and stiffness leading to changes to bone structure and calcification of ligaments.

Though some people have suggested that fluoridated water can lead to other side effects such as osteosarcoma (bone cancer), [arthritis](#) and [kidney disease](#), evidence of these complications is slim. The American Cancer Society reports that "more than 50 population-based (retrospective) studies have looked at the potential link between water fluoride levels and cancer. Most of these have not found a strong link to cancer." And the ACS notes that "osteosarcoma is a rare cancer. Only about 400 cases are diagnosed in children and teens each year in the United States."



So, What Do You Drink?

Leman says she uses both tap and bottled water: "I use filtered water from the fridge for drinking, refilling my stainless steel water bottle and making coffee. I use tap water for making soup and cooking pasta. And I use bottled and/or tap when I'm away from home."



Stoiber says the EWG recommends using filtered tap water over bottled water unless there's a really compelling reason to select bottled water. "We recommend filtered tap water because it's tested regularly – not as often as we'd like – but still it's tested, whereas bottled water is not required to be tested, so you don't know if there are contaminants in it or not." Case in point, in June 2019, the Center for Environmental Health, a nonprofit organization based in Oakland, California, reported that its independent testing of bottled water produced by Starkey (a company owned by Whole Foods) and Peñafiel bottled water (owned by Keurig Dr. Pepper) contained high levels of the poison arsenic.

In addition, "bottled water has a shelf life," Stoiber says, meaning that it can go bad and isn't indefinitely good to consume. One concern is that over time, certain chemical compounds in the plastic can leach into the

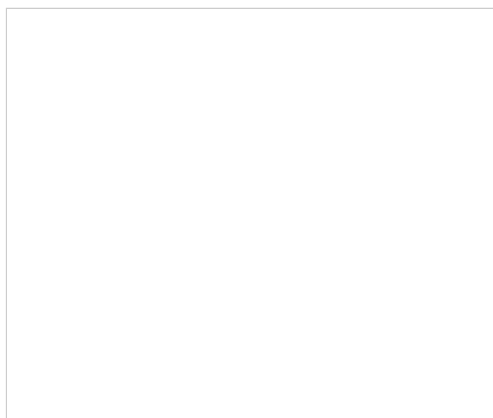
water and potentially cause health problems. For all of these reasons, Stoiber says filtered tap water is EWG's recommendation.

[[SEE: 5 Solid Lifestyle Changes to Help Prevent Cancer.](#)]

Choosing the Right Filter

In many cases, filtered tap water is the better option for health, wellness and your wallet. But not all filters work the same way. Stoiber says there's a wide range of filters on the market that can remove a variety of contaminants, so she recommends checking the EWG's [Tap Water Database](#) to find out what's in your town's water and what you might want to filter out.

When it comes to filters, there's something for just about every budget, she says, "from inexpensive filters that use carbon, for example, such as a countertop Brita filter versus one that's plumbed into your tap like a reverse osmosis system," which may be more expensive to install. Carbon filters remove sediment particles, chlorine and volatile organic compounds that can alter the taste and odor of tap water. "That might be all you need if you have low contaminants or not much of concern," she says.



However, "if you live in an area where you're concerned about [PFAS chemicals](#), you can look at a reverse osmosis system." Perfluorooctanoic acid chemicals are used in industrial and chemical processes and are sometimes called "forever chemicals" because they take a very long time to break down. They are considered endocrine disruptors and have been associated with certain health concerns. A reverse osmosis system can remove PFAS chemicals as well as lead, mercury, calcium, iron, asbestos and other chemicals.

Stoiber recommends using the EWG's [Water Filter Buying Guide](#) to learn which types of filters remove the contaminants found in your water supply and will fit into your budget. She adds that even if it seems expensive to install a water filter, it may end up paying for itself over time. "You might find that the best filter for your situation is expensive. But in the long run, that might actually be cheaper than having to buy bottled water."

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