

Bottled Water: Questions and Answers

Bottled water is becoming increasingly popular. People buy bottled water for a variety of reasons, including convenience, fashion, and taste. Some buy it once just for the bottle and then refill it from the tap. Some people buy bottled water because they think it is safer than tap water.

A variety of factors have resulted in a steep increase in the amount of money being spent to purchase bottled water. It is predicted that bottled water may soon become the nation's second-most popular beverage after soft drinks.¹

Some municipal water systems which deliver water into people's homes for under 1/100 of a cent per gallon are now bottling their own water and selling it for more than a dollar for a 20-ounce bottle—which comes out to about \$6 per gallon.

Is bottled water really safer than tap water?

Overall, there is no reason to believe that bottled water is any safer than tap water from a regulated public water supply or from a proper, tested private well. These drinking water sources are normally safe and high quality.

How safe is tap water?

The public water supply is regulated by the U.S. Environmental Protection Agency (EPA). All municipal water systems serving 25 or more people are tested regularly for up to 118 chemicals and bacteria specified by the Safe Drinking Water Act (SDWA). Individual states may require additional testing. Everyone who gets their tap water from a public system is therefore assured of regular testing and certain standards. And, when testing indicates a problem, corrective actions are instituted. These actions include notifying residents about the problem and informing them of any special precautions that may be necessary.

How is bottled water regulated?

The Food and Drug Administration (FDA) sets standards for bottled water if the water is bottled in one state and sold in another. FDA requirements are generally less rigorous than those of the SDWA. The FDA has standards that regulate microbiological, physical, radiological, and chemical characteristics of the water. When the EPA promulgates a standard for a chemical or microbial contaminant for public water, the FDA must either adopt the same standard for bottled water or find that the standard is unnecessary for bottled water to maintain the safety of the water. The FDA also inspects bottled water plants and collects and analyzes samples of bottled water.

The Minnesota Department of Agriculture (MDA) licenses and regulates water bottled in Minnesota. The MDA has its own state rule addressing bottled water and has also adopted FDA bottled water regulations. MDA staff is responsible for approving licenses, inspecting facilities and records, testing water samples, and checking bottled water labels for misbranding.

In addition to meeting the minimum requirements of the FDA and/or MDA, bottled water companies may choose to meet the standards of quality set forth by one or both of the two trade associations for the bottled water industry. The International Bottled Water Association (IBWA) and the National Sanitation Foundation (NSF) have developed standards that are more stringent than the FDA's and sometimes more strict than those of the SDWA. Members of the IBWA, for example, submit to an annual unannounced inspection to test whether members meet state, federal, and IBWA requirements for the production and sale of water. However, not all bottled water companies comply with the trade associations' standards. Further, the standards of the IBWA or NSF are not legally enforceable. Lastly, the results of water quality tests are not available to the public.

Where does bottled water come from?

Bottled water comes from a variety of sources, including many of the same sources from which tap water originates. Sometimes the water you can buy in a bottle is simply tap water from a municipal water system that has been enhanced in some way. Other sources of bottled water include springs, wells, and surface waters.

How is bottled water labeled?

The labels on bottled water must conform to FDA standards. These standards are in place to ensure that labels accurately reflect the product. For example, if the label on the bottle says "spring water," then the water must come from a spring. While this may evoke a pristine image, there really is nothing magical about water from a spring. The water may be piped from an underground spring to the plant, where it is filtered and perhaps treated in some other way before it is bottled.

When is drinking bottled water recommended?

In some circumstances, bottled water may be the best choice. One such situation is when a safe supply is not available such as during a camping trip. Bottled water may also be recommended during a flood or natural disaster. In the rare event of contamination of a public water supply or private well, bottled water is safest until the problem is fixed.

Some people have a health condition that requires that they have lower levels of some substance, such as sodium. In such an instance, bottled water that has been shown to be lower in the substance of concern may be the best choice. It is important to consult your physician for advice on whether bottled water is appropriate for you.

Whatever your situation, you should research bottled water to make sure that the brand and type you select is actually the best choice for you. Bottled water suppliers must be able to provide information about test results.

What about fluoride?

Fluoride is an essential component in the reduction of tooth decay, especially in children. Research has shown that consuming water that has been adjusted to reach optimal fluoride levels improves dental health by preventing cavities.²

Drinking fluoridated water is more effective than using toothpastes or mouth rinses that contain fluoride. Fluoride from toothpaste is only on the teeth for a short time, whereas consumption of fluoridated water allows fluoride to continually be delivered to the teeth through the bloodstream and saliva. Fluoride can therefore also be incorporated into teeth as they form in childhood.

In Minnesota, almost all people who obtain water from public water systems receive fluoridated water.³ In contrast, most bottled water does not contain an optimal level of fluoride. Therefore, it's important that parents buying bottled water for their family determine how much fluoride is present in the water. This may not be a simple thing to do—bottlers are not required to provide fluoride information on the label, although some do. Parents can contact the bottling company to find out what level of fluoride is in the bottled water.

Are the plastic bottles safe to reuse?

An issue of concern is the reuse of the bottles. Reused bottles may be contaminated with bacteria and other disease-causing organisms. Reusing the bottles may expose people to unhealthy microorganisms, especially if the bottles are not washed appropriately after each use.

How long does bottled water last?

The FDA considers bottled water to have an indefinite shelf life if it's produced in accordance with regulations and remains unopened. Therefore, expiration dates on bottles are voluntary, and may reflect concerns for taste and odor rather than safety. Bottled water should be stored in a cool location away from direct sunlight.

Endnotes

¹ U.S. Food and Drug Administration, "Ask the Regulators—Bottled Water Regulation and the FDA," February-March 2002, <http://www.fda.gov/Food/FoodborneIllnessContaminants/BuyStoreServeSafe-Food/ucm077079.htm>.

² Morbidity and Mortality Weekly Report, "Recommendations for Using Fluoride to Prevent and Control Dental Caries in the United States," August 17, 2001, 50(RR14);1-42, <http://www.cdc.gov/mmwr//preview/mmwrhtml/rr5014a1.htm>, accessed 9/18/03.

³ U.S. Centers for Disease Control and Prevention, National Oral Health Surveillance System, <http://www.cdc.gov/nohss/FSMain.htm>, accessed 9/22/03.



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