

The Risks of Bottled Drinking Water

Editor's Note: Tap water is typically safe to drink and in some cases safer than bottled water. For more about bottled water, see Michelle Moore's article, "Can Public Water Utilities Compete with Bottled Water?" in the spring 2003 edition of On Tap.



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In the water treatment industry, at-the-tap treatment of drinking water is referred to as a point-of-use, or POU, device treatment. In this article, treatment is discussed in broad terms that include distillation and filtration, not just adding chemicals to water.

Recently, I have focused my study of potable water on the bottled drinking water industry and have done some comparisons of pH in various water sources.

A very interesting phenomenon goes on concerning the marketing of bottled water for personal use. For several years now, most of the public seems to recognize that commercially sold bottled water is not regulated as much as city or town water from the plant. Yet sales of bottled water continue to rise, under a kind of false sense of security people have that they are somehow safer drinking it. These sales also are a result

Type of Water	pH from Hach Digital Pocket Meter	pH from Laboratory
Roanoke, Virginia, tap water	7.9	7.7-7.8
Culligan Drinking Water	5.5	not run
Kroger brand bottled Distilled Water	5.3	5.5
Coca Cola's Desani bottled water	6.1	5.5
Roanoke tap water that is run through a sophisticated portable home filter	7.6	7.6
Roanoke tap water run through same filter and counter-top super-aerator with magnetic field	7.9	7.8
Roadside spring with a good reputation	7.9	not run
Home well water, karst region	7.5	not run
Home well water run through a POU reverse-osmosis filtration unit	6.3	not run

of an over-cautious approach to drinking municipal water, which is the result of misinformation and exaggerated environmental awareness of many water customers.

One of my main interests in life is nutrition and personal health. The reason for my interest in drinking water pH is I have learned that the body's diseases thrive in an acid environment. Let's review chemistry fundamentals here: pH is the measure of negative hydrogen ions where zero to 7 is the acid range; 7.0 is neutral, (a salt); and seven to 14 is alkaline, or basic.

For several years, I bought bottled distilled water from the grocery store believing it would be the best and purest drinking water source for my body. However, recently I heard a claim from a health and nutrition organi-

zation that commercially sold distilled water was very acidic. I wanted to see for myself.

My laboratory test comparisons as shown in the chart above, verify the acidity of most bottled water. Furthermore, Roanoke had previously done some turbidity tests on bottled water, such as *Deerpark*, and found that it does not compare with their own finished water turbidities in that regard either.💧

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