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ALABAMA A & M AND AUBURN UNIVERSITIES

Possible Treatments

Bottled Water: Is It Really Better?

With reports of increased chemical and bacterial contamination of water resources, many health-conscious consumers are beginning to question the safety of our drinking water supplies. However, most public water utilities are now providing safer water than ever before. A greater number of regulations and laws have increased the monitoring and testing of all public water supplies. More people now have access to public water and, therefore, are drinking safer water than ever before.

Most problems with contaminated water are associated with private water supplies. Although public water supplies are closely regulated, the numerous private water supplies throughout the country are not regulated or inspected. Householders are solely responsible for the safety and monitoring of their private water supplies.

With this increased concern about the safety of drinking water, many consumers, even those on public systems, are now turning to bottled water as a way of getting a safer, tastier drink. In 1990, consumers spent more than \$1.5 billion for approximately 1.25 billion gallons of bottled water. With this increased consumer demand, the bottled water industry has responded with a growing number of products—now more than 600—for consumers.

Who Regulates Bottled Water?

While public water supplies are regulated by the Environmental Protection Agency (EPA), bottled water falls under the jurisdiction of the Food and Drug Administration (FDA). On December 1, 1994, the FDA published a final rule requiring bottled water suppliers to meet water quality standards identical to those established by US EPA's Phase II regulations for drinking water suppliers. The FDA rule becomes effective May 30, 1995.

Types Of Bottled Water

Many consumers are unaware of the various types of bottled waters and where they actually come

from. The following is a description of the basic types of bottled water and their source.

Distilled Or Demineralized Water. This is water which has been treated to remove nearly all of the minerals that occur naturally. Through distillation or deionization the water contains only 10 parts per million (ppm) or less of total dissolved solids. The resulting water is of the highest purity but has very little taste and is often considered bland.

Drinking Water. This type of water may come from municipal water systems, wells, or springs. It is generally treated to remove some chemicals and bacteria but still contains some dissolved solids. Certain minerals are often added to the water to give it an improved taste.

Natural water. Natural water means just that. It is bottled without much treatment. It is generally free of the trace minerals which are added in most public water supplies but contains many minerals found naturally in water. Because of the wide range of minerals in water from a groundwater source, natural water is generally quite flavorful. An undesirable trait of natural water is the possibility of contamination by synthetic organic chemicals, including industrial solvents, petroleum products, and pesticides. This risk has now been reduced because of the FDA ruling in 1994.

Mineral Water. This type of water is generally obtained from a natural spring or underground source, and the mineral content is not modified by the manufacturer. Mineral water may contain from 1,000 to 3,000 ppm total dissolved solids. This water may also be contaminated by synthetic organics. In fact, routine testing of water samples in a North Carolina laboratory in 1992 resulted in the discovery of benzene in Perrier, one of the most popular of bottled mineral waters. Benzene levels were more than three times the drinking water standard set by EPA. Ironically, the lab was using Perrier as an organic-free standard at the time.

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As of May 30, 1995, water classified as natural water or mineral water must meet standards identical to those set by EPA.

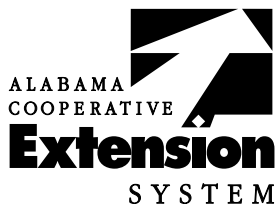
Is Bottled Water Worth The Cost?

This is a question that each individual must answer. Although many bottled waters come from the tap and are no better than public water supplies, they are safer than water from a private well which is contaminated. However, with the high price tag that bottled water carries—almost \$1 a gallon or more—for most people it should be considered a short-term alternative and not a long-term solution to a contaminated water supply. Although bottled water may be of comparable quality to regulated public water supplies, it is no better or safer in most cases.

Is bottled water better? It is your decision. You must judge.

Reference

Graham, Frances C. 1990. Bottled Water. Information Sheet 1418. Mississippi Cooperative Extension Service. Mississippi State University. Mississippi State, MS.



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For more information, call your county Extension office. Look in your telephone directory under your county's name to find the number.

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