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Bottled water has contaminants too, study finds

By JEFF DONN, AP National Writer Wed Oct 15, 12:17 AM ET

Tests on leading brands of bottled water turned up a variety of contaminants often found in tap water, according to a study released Wednesday by an environmental advocacy group.

The findings challenge the popular impression -- and marketing pitch -- that bottled water is purer than tap water, the researchers say.

However, all the brands met federal health standards for drinking water. Two violated a California state standard, the study said.



An industry group branded the findings "alarmist." Joe Doss, president of the International Bottled Water Association, said the study is based on the faulty premise that a contaminant is a health concern "even if it does not exceed the established regulatory limit or no standard has been set."

The study's lab tests on 10 brands of bottled water detected 38 chemicals including bacteria, caffeine, the pain reliever acetaminophen, fertilizer, solvents, plastic-making chemicals and the radioactive element strontium. Though some probably came from tap water that some companies use for their bottled water, other contaminants probably leached from plastic bottles, the researchers said.

"In some cases, it appears bottled water is no less polluted than tap water and, at 1,900 times the cost, consumers should expect better," said Jane Houlihan, an environmental engineer who co-authored the study.

The two-year study was done by the Washington-based Environmental Working Group, an organization founded by scientists that advocates stricter regulation. It found the contaminants in bottled water purchased in nine states and Washington, D.C.

Researchers tested one batch for each of 10 brands. Eight did not have contaminants high enough to warrant further testing. But two brands did, so more tests were done and those revealed chlorine byproducts above California's standard, the group reported. The researchers identified those two brands as Sam's Choice sold by Wal-Mart and Acadia of Giant Food supermarkets.

In the Wal-Mart and Giant Food bottled water, the highest concentration of chlorine byproducts, known as trihalomethanes, was over 35 parts per billion. California's limit is 10 parts per billion or less, and the industry's International Bottled Water Association makes 10 its voluntary guideline. The federal limit is 80.

Wal-Mart said its own studies did not turn up illegal levels of contaminants. Giant Food officials released a statement asserting that Acadia meets all regulatory standards. Acadia is sold in the mid-Atlantic states, so it isn't held to California's standard. In most places, bottled water must meet roughly the same federal standards as tap water.

The researchers also said the Wal-Mart brand was five times California's limit for one particular chlorine byproduct, bromodichloromethane. The environmental group wants Wal-Mart to label its bottles in California with a warning because the chlorine-based contaminants have been linked with cancer. It has filed a notice of intent to sue.

Wal-Mart spokeswoman Shannon Frederick said the company was "puzzled" by the findings because testing by suppliers and another lab had detected no "reportable amounts" of such contaminants. She said Wal-Mart would investigate further but defended the quality of its bottled water.

The researchers recommend that people worried about water contaminants drink tap water with a carbon filter.

--- On Tue, 3/11/08, Gavin Dickinson <gavin@ionlife.org> wrote:

From: Gavin Dickinson <gavin@ionlife.org>
Subject: Pharmaceuticals in Water Supplies
To: "Gavin Dickinson" <gavin@ionlife.org>
Date: Tuesday, March 11, 2008, 12:22 PM

IonLife Water Quality Alert (3-11-08):

Pharmaceuticals Found in Water Supplies

Summary:

Reporters from the Associated Press' National Investigative Team reviewed hundreds of scientific reports, federal databases and environmental studies and interviewed more than 230 officials, academics and scientists and private water suppliers in all 50

states. Following this exhaustive project, it was concluded that a surprising array of pharmaceuticals have been found in water supplies across the U.S.

Partial Findings:

Following is a partial list of what the Investigative Team uncovered:

- * Philadelphia: 56 pharmaceuticals or byproducts in treated drinking water, including medicines for pain, infection, high cholesterol, asthma, epilepsy, mental illness and heart problems. Sixty-three pharmaceuticals or byproducts were found in the city's watersheds.
- * Southern California: Anti-epileptic and anti-anxiety medications were detected in a portion of the treated drinking water for 18.5 million people.
- * Northern New Jersey: Drinking water treatment plant, which serves 850,000 people, found a metabolized angina medicine and the mood-stabilizing carbamazepine in drinking water.
- * San Francisco: A sex hormone was detected in drinking water.
- * Washington D.C. : The drinking water for Washington , D.C. , and surrounding areas tested positive for six pharmaceuticals.
- * Tucson AZ: Three medications, including an antibiotic, were found in drinking water supplied to Tucson , Ariz.

It is NOT a Federal Government mandate for municipalities and well owners to test for pharmaceuticals in water nor has the Agencies set any maximum contaminant levels. Of the 62 major water providers contacted by the Investigative Team, the drinking water for only 28 was tested. Among the 34 that haven't: Houston , Chicago , Miami , Baltimore , Phoenix , Boston and New York City 's Department of Environmental Protection, which delivers water to 9 million people.

Health Risks:

Researchers do not yet understand the exact risks associated with persistent exposure to random combinations of low levels of pharmaceuticals, however, some studies uncovered dangerous effects on humans and animals.

To nobody's surprise, the Pharmaceutical Industry had initially gone on record to state that: "Based on what we now know, I would say we

find there's little or no risk from pharmaceuticals in the environment to human health," said microbiologist Thomas White, a consultant for the Pharmaceutical Research and Manufacturers of America.

But at a conference last summer, Mary Buzby -- Director of Environmental Technology for drug maker Merck & Co. Inc. -- said: "There's no doubt about it, pharmaceuticals are being detected in the environment and there is genuine concern that these compounds, in the small concentrations that they're at, could be causing impacts to human health or to aquatic organisms."

The reaction from the Federal Government is: "We recognize it is a growing concern and we're taking it very seriously," said Benjamin H.

Grumbles, assistant administrator for water at the U.S. Environmental Protection Agency.

Removal of contaminants:

Some time will be needed to determine the optimal solution for removal of pharmaceuticals in drinking water due to the need for extensive testing. However, as with removal of other contaminants in water, the more barriers to treatment that are installed, the greater the particulate removal.

Initial studies indicate that some reduction in pharmaceuticals is achieved from Granular Activated Carbon (GAC). The filters built into Jupiter Ionizers are primarily comprised of GAC, which has been used for decades in water treatment to adsorb many dangerous compounds.

Reverse Osmosis (R/O) treatment was specifically designed to provide a way to remove up to 98% of all dissolved and suspended materials in water. The disadvantage of R/O is the fact that water produced is virtually mineral free and typically highly acidic on the pH scale. Both of those properties in R/O water are not natural for the body. IonLife has a system that incorporates R/O and remineralization before the ionizer. Furthermore, R/O systems can waste between 5 to 20 gallons of water for each gallon of drinking water produced.

Some consumers may see Bottled Water as an alternative, but bottled water can come from sources that are contaminated too and is

typically treated with R/O. Bottled water also has disadvantages due to leaching of plasticizers into the water inside and environmental damage created by manufacturing and disposal of the plastic bottle itself.

In fact, the BioStone filter in our products and the ionization process itself provides increased treatment barriers. The process separates acidic from alkaline ions, which will eliminate some contaminants from your drinking water. Laboratory results on the impact of the BioStone filter and Jupiter Ionizers can be seen at <http://www.ionizers.org/pdf/wateranalysis.pdf> .

The Water Professionals at IonLife will continue to monitor the situation, share our findings and offer the necessary products to work in conjunction with your ionizer if required.

Sweden's second city Gothenburg has decided to stop buying bottled water due to environmental concerns and will only provide civil servants with tap water, a city councillor said Thursday. (AFP/File/Teh Eng Koon) <http://news.yahoo.com/nphotos/environmental-concerns-bottled-water-civil-servants/photo/080918/photos_lf_afp/9aceca126c9d76404d941fa63648f26f/s:/ap/20081015/ap_on_sc/impure_bottled_water;_ylt=ApXd.d.yLlzw38.Ae8ZXgOJ>
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AFP/File Photo:
<http://news.yahoo.com/nphotos/environmental-concerns-bottled-water-civil-servants/photo/080918/photos_lf_afp/9aceca126c9d76404d941fa63648f26f/s:/ap/20081015/ap_on_sc/impure_bottled_water;_ylt=AtbpXQG1hmBBjzesuJDF17x>
xieAA> Sweden's second city Gothenburg has decided to stop buying bottled water due to environmental concerns...