

Researchers alarmed at bacteria in Canadian bottled water

BY ALLISON CROSS, CANWEST NEWS SERVICE MAY 28, 2010



Canadian researchers say they've discovered some bottled water in Canada contains more bacteria than what comes out of the tap — although they won't reveal which brands are the culprits.

Photograph by: Reuters, Reuters

Canadian researchers say they've learned some bottled water in Canada contains more bacteria than what comes out of the tap — although they won't reveal which brands are the culprits.

Researchers from C-crest Laboratories in Montreal bought and tested several popular brands of bottled water, and found many of them had heterotrophic bacteria counts that were "surprisingly high."

Heterotrophic bacteria require an organic carbon source in order to grow.

More than 70 per cent of popular brands they tested did not meet the standards set out by the United States Pharmacopeia, a non-governmental agency that sets safety standards for medications and health-care products.

No more than 500 colony forming units (cfu) of bacteria per millilitre should be present in drinking water, according to the USP.

"Heterotrophic bacteria counts in some of the bottles were found to be in revolting figures of (100) times more than the permitted limit," said Sonish Azam, a researcher on the study, in a news release.

Some brands had as much as 70,000 cfu per millilitre, said Azam.

The average number of colony forming units in tap water samples they tested in order to compare results was 170 per millilitre, she said.

"Despite having the cleanest tap water, a large number of urban Canadians are switching over to bottled water for their daily hydration requirements," Azam said. "The consumer assumes that since bottled water carries a price tag, it is purer and safer than most tap water."

This kind of bacteria doesn't normally cause any disease in healthy people, but could make pregnant women, infants and the elderly sick, she said.

Although researchers didn't actually find any pathogens — or germs — in the bottled water, they said the high bacteria counts mean Canadian regulations should be stricter, just in case.

The researchers, who work in a pharmaceutical lab, got the idea for the study after a fellow employee

complained that their bottled water tasted bad and made them sick.

According to Azam, Health Canada hasn't set an allowable limit for heterotrophic bacteria in bottled water, and neither has the U.S. Food and Drug Administration.

Their intention is to change Canadian regulations, said researcher Ali Khamessan, and not point the finger at specific companies.

Health Canada points out that bottled water is already regulated under the Food and Drugs Act and Regulations.

"Under these regulations, bottled water is required to be free of disease-causing organisms. Like most foods, bottled water may contain naturally occurring bacteria which typically have little or no health significance," it said in a statement.

It contends that a recent World Health Organization study concluded "heterotrophic bacteria counts in drinking water are not a health concern to the general public."

Researchers presented their results Tuesday at the general meeting of the American Society for Microbiology in San Diego.

"Bottled water is not expected to be free from micro-organisms but the (colony forming unit count) observed in this study is surprisingly very high," Azam said. "Therefore, it is strongly recommended to establish a limit for the heterotrophic bacteria count as well as to identify the nature of micro-organisms present in the bottled water."

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