

## "Tests find Bisphenol A in majority of soft drinks"

Controversial chemical found in at least 84% of canned pop sold in Canada

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The estrogen-mimicking chemical BPA, already banished from baby bottles and frowned upon in water jugs, has now shown up in significant levels in soft drinks.

Tests by Health Canada scientists revealed the highest levels were in energy drinks, the often caffeine-loaded beverages that have become popular with teenagers seeking a buzz and athletes chasing a quick pick-me-up. But the study also found the controversial compound in a wide variety of ginger ales, diet colas, root beers and citrus-flavoured sodas.

Bisphenol A was detected in 96 per cent of soft drinks tested, in quantities below regulatory limits. But a growing body of science suggests the chemical may have harmful effects at levels far below those limits.

Health Canada did not disclose the brand names of the beverages it evaluated, but estimated that the survey covered at least 84 per cent of canned soft drinks sold in Canada.

The testing is considered the most sophisticated conducted anywhere in the world on BPA in pop, a subject about which little has been known up to now. The report outlining the results appeared last month in the *Journal of Agricultural and Food Chemistry*, a relatively obscure scientific publication, and Health Canada also posted its data on its website, with little publicity.

Soft-drink cans are treated with a BPA-containing liner to prevent drinks from coming into contact with metal.

Although independent scientists and environmentalists warn that all exposures to the artificial sex hormone should be avoided, both Health Canada and the soft-drink industry played down the study's findings, saying the amounts detected were well below regulatory limits.

"It really confirms the safety of the packaging," said Justin Sherwood, president of Refreshments Canada, an industry trade group. He said the higher levels in several energy drinks may be statistical flukes.

Since prior testing hasn't usually detected residues, the soft-drink industry has long told consumers that its canned product doesn't expose drinkers to BPA. Pop companies have consequently avoided some of the controversy surrounding polycarbonate plastic water bottles, baby bottles and canned foods, where testing has often found the compound.

Health Canada contends there is no risk because a single serving of pop with the highest amount detected — 4.5 parts per billion — would give drinkers a dose well below its safety limit.

The levels are "extremely low," said Samuel Godefroy, director of the health agency's Bureau of Chemical Safety. He said children would not be at risk from consuming pop, and an adult would have to drink 900 cans a day to exceed the government's safety level.

Still, many scientists are worried about ingestion of the minute amounts of BPA found leaching from food and beverage packaging. The chemical is a synthetic compound able to fool cells into viewing it as estrogen, providing what amounts to an extra dollop of the female hormone.

"We are constantly getting exposed to this chemical," said Frederick vom Saal, a biologist at the University of Missouri and an authority on BPA. "People drink a lot of soda and this needs to be looked at as one of a very large number of sources of exposure to this chemical." BPA is also used in dental sealants, plastic water pipes and even carbonless cash-register receipts.

Although levels vary, natural estrogen circulates in people at extremely minute concentrations, around a part per trillion. The test results indicated that an average soft drink has concentrations of BPA around half a part per billion, or 500 times more than the level of the female hormone in people.

Dr. vom Saal says there is also a growing body of scientific literature, based on animal experiments, that has found harmful effects due to BPA at concentrations up to 1,000 times below Health Canada's safety limit. These conditions include such hormonally linked illnesses as breast cancer, and Dr. vom Saal called the government's assurances of no harm "simple-minded."

The Health Canada testing found BPA in 69 of the 72 cans evaluated. It didn't detect the chemical in two cans of tonic water, but the researchers said a bittering agent in them may have gummed up the tests; they could not explain why one can of energy drink didn't show any bisphenol A.

Nor is it clear why, overall, the highest BPA levels were found in energy drinks, but the results might be a surprise to some of the consumers of these products. "It would be interesting to do a survey in the weight rooms to see how many tough guys are aware of the estrogen levels in their drinks," said Aaron Freeman, a spokesman for Environmental Defence, a group that is lobbying Health Canada to eliminate BPA from food and beverage packaging.

## **RESPONSES TO BPA**

The safety of bisphenol A levels in several products has been questioned.

**Polycarbonate baby bottles:** Health Canada is drafting rules to ban their import, sale and advertising. Retailers have pulled them from shelves in advance of the ban.

**Polycarbonate water bottles:** Most retailers have removed them, and bottle makers are switching to BPA-free alternatives.

**Canned formula:** Health Canada is working to develop a code of practice to reduce BPA leaching from infant formula cans to the lowest possible levels.

**Canned foods:** BPA is found in most canned foods, but Health Canada says the amounts pose no risk to adults, pregnant women or children older than 18 months.

**Toxic substances list:** Canada is adding BPA to the dangerous chemical list, based on worries that infants could be overexposed and that it is a possible hazard to wildlife.

**Pop cans:** A new Health Canada survey has found BPA in nearly all cans, but it says residues are too low to be a risk.