

November 8, 2009

OP-ED COLUMNIST

Chemicals in Our Food, and Bodies

By NICHOLAS D. KRISTOF

Your body is probably home to a chemical called bisphenol A, or BPA. It's a synthetic estrogen that United States factories now use in everything from plastics to epoxies — to the tune of [six pounds per American per year](#). That's a lot of estrogen.

[More than 92 percent](#) of Americans have BPA in their urine, and scientists have linked it — though not conclusively — to everything from breast cancer to obesity, from attention deficit disorder to genital abnormalities in boys and girls alike.

Now it turns out it's in our food.

[Consumer Reports magazine tested](#) an array of brand-name canned foods for a report in its December issue and found BPA in almost all of them. The magazine says that relatively high levels turned up, for example, in Progresso vegetable soup, Campbell's condensed chicken noodle soup, and Del Monte Blue Lake cut green beans.

The magazine also says it found BPA in the canned liquid version of Similac Advance infant formula (but not in the powdered version) and in canned Nestlé Juicy Juice (but not in the juice boxes). The BPA in the food probably came from an interior coating used in many cans.

Should we be alarmed?

The chemical industry doesn't think so. Steven Hentges of the [American Chemistry Council](#) dismissed the testing, noting that Americans absorb quantities of BPA at levels that government regulators have found to be safe. Mr. Hentges also pointed to [a new study](#) indicating that BPA exposure did not cause abnormalities in the reproductive health of rats.

But more than 200 other studies have shown links between low doses of BPA and adverse health effects, according to the [Breast Cancer Fund](#), which is trying to ban the chemical from food and beverage containers.

"The vast majority of independent scientists — those not working for industry — are concerned about early-life low-dose exposures to BPA," said Janet Gray, a Vassar College professor who is science adviser to the Breast Cancer Fund.

[Published journal articles](#) have found that BPA given to pregnant rats or mice can cause malformed genitals in their offspring, as well as reduced sperm count among males. For example, a European journal found that male mice exposed to BPA were less likely to make females pregnant, and the Journal of Occupational Health found that male rats administered BPA had less sperm production and lower testicular weight.

This year, the journal Environmental Health Perspectives found that pregnant mice exposed to BPA had babies with abnormalities in the cervix, uterus and vagina. Reproductive Toxicology found that even low-level exposure to BPA led to the mouse equivalent of early puberty for females. And an array of animal

studies link prenatal BPA exposure to breast cancer and prostate cancer.

While most of the studies are on animals, the Journal of the American Medical Association reported last year that humans with higher levels of BPA in their blood have “an increased prevalence of cardiovascular disease, diabetes and liver-enzyme abnormalities.” Another published study found that women with higher levels of BPA in their blood had more miscarriages.

Scholars have noted some increasing reports of boys born with malformed genitals, girls who begin puberty at age 6 or 8 or even earlier, breast cancer in women and men alike, and declining sperm counts among men. The Endocrine Society, an association of endocrinologists, warned this year that these kinds of abnormalities may be a consequence of the rise of endocrine-disrupting chemicals, and it specifically called on regulators to re-evaluate BPA.

Last year, Canada became the first country to conclude that BPA can be hazardous to humans, and Massachusetts issued a public health advisory in August warning against any exposure to BPA by pregnant or breast-feeding women or by children under the age of 2.

The Food and Drug Administration, which in the past has relied largely on industry studies — and has generally been asleep at the wheel — [is studying the issue again](#). Bills [are also pending](#) in Congress to ban BPA from food and beverage containers.

“When you have 92 percent of the American population exposed to a chemical, this is not one where you want to be wrong,” said Dr. Ted Schettler of the Science and Environmental Health Network. “Are we going to quibble over individual rodent studies, or are we going to act?”

While the evidence isn’t conclusive, it justifies precautions. In my family, we’re cutting down on the use of those plastic containers that contain BPA to store or microwave food, and I’m drinking water out of a metal bottle now. In my reporting around the world, I’ve come to terms with the threats from warlords, bandits and tarantulas. But endocrine disrupting chemicals — they give me the willies.

I invite you to comment on this column on my blog, [On the Ground](#). Please also join me on [Facebook](#), watch my [YouTube videos](#) and follow me on [Twitter](#).

Copyright 2009 The New York Times Company

[Privacy Policy](#) | [Terms of Service](#) | [Search](#) | [Corrections](#) | [RSS](#) | [First Look](#) | [Help](#) | [Contact Us](#) | [Work for Us](#) | [Site Map](#)