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## Is BPA in Your Bottle?

The FDA and studies warn about Bisphenol A—how should you handle the news?

By: John Briley | Source: AARP Bulletin Today | February 12, 2010



Baby bottle: B and G Images; others by Jim

Wehtje/Getty Images

The chemical doesn't just pose a health threat to children, some experts say. Studies have linked it to heart disease, prostate problems, erectile dysfunction and breast cancer. Although it doesn't build up in the body, researchers say exposure is so common that many Americans have a near-constant level in their systems.

#### FDA hints at more regulation

But health officials have yet to state publicly that BPA poses an immediate danger to humans.

"If we thought it was unsafe, we would be taking strong regulatory action," said Joshua Sharfstein, M.D., the principal deputy commissioner of the drug agency, at a news briefing.

But in recent weeks the FDA also has refused to state unequivocally that BPA is safe. The agency is conducting its own studies on BPA and, Sharfstein says, it expects to have the results of that research in about two years.

In the meantime, he says, the FDA is "taking reasonable steps to reduce human exposure to BPA in the food supply," by encouraging industry to stop producing baby bottles and infant feeding cups containing BPA and helping manufacturers find an alternative lining for cans.

While the FDA's procedures may baffle some consumers, it actually marks a significant step toward enhanced regulation of BPA, says Fred vom Saal, professor of reproductive biology at the University of Missouri.

"The FDA reversing position is rare to say the least," says vom Saal, who has been researching the chemical for more than a decade. "They are essentially acknowledging that ... [their] last risk assessment on BPA was flawed and its conclusions were not based on logical interpretation of science. That's big."

#### No labeling requirements—yet

The FDA has recommended ways for consumers to avoid BPA (see "Tell Me More"), but it has not advised consumers to stop using products packaged in BPA-laced containers. Nor did the agency move to ban the chemical or require warning labels on products containing it.

The FDA, however, does have some plans to deal with the chemical: It wants to reclassify BPA from a food additive to a food contact material, which would require more labeling disclosures and allow the government to move quickly if it concluded that BPA posed a significant health risk. The agency must go through an often lengthy rule-making process to initiate action on a food additive.

Still, vom Saal says, getting BPA out of food and drink packaging in the United States could take years—and may never happen.

The U.S. food packaging and chemical industries, he contends, "are like the tobacco industry. They are going to fight this tooth and nail. If you have a cooperative industry, changing the classification to food contact material can take three to five years. If you have an uncooperative industry, it can be blocked forever. The FDA should not expect anything but pushback from industry."

The American Chemistry Council holds that BPA is safe. The question, says a spokesperson from the group, has "been asked and answered by regulatory agencies around the world—and the answer has consistently been that BPA is safe for use in food contact products." She added that "can liners made with BPA ... [help] protect the safety of packaged foods by preserving products from spoilage and contamination."

#### Alternative canning chemical

Vom Saal says that food packagers in Japan successfully replaced BPA in can linings in 1999. He says the Japanese canning industry changed the layer in the lining of cans, "so there is now virtually no BPA in contact with food" in Japanese-made cans.

Consumer groups have been urging stricter oversight of BPA for years

because of health concerns; Canada banned its use in baby bottles in 2008, calling it a known toxin. Connecticut and Minnesota have banned it from baby bottles and sippy cups, and similar bills are under consideration in California and Washington.

Many companies—including most baby bottle manufacturers—have stopped using BPA in recent years. But the chemical is still heavily used in the lining of canned goods, experts say.

### What BPA does in the human body

The controversial chemical acts like estrogen in the body, throwing off the body's regulation of those hormones, says William Lee, M.D., metabolic cardiologist at the Patients Medical Center in New York. It breaks down and binds to estrogen receptors, but the chemical is "much more potent" than estrogen hormones, says Lee. High concentrations of it disrupt insulin production, which in turn leads to excess triglycerides in the bloodstream. "And that means higher heart disease risk, liver damage, obesity, et cetera," Lee says.

#### Potentially greater threat to older adults

BPA exposure could be more harmful to older adults than to younger adults, says Lee. "Once men pass age 40 estrogen levels increase naturally, and helping that process along is not necessarily healthy," he warns.

For example, Lee says, men with prostate disorders tend to have elevated estrogen levels, so artificially boosting estrogen through BPA exposure could have negative effects on the prostate. Published in the November 2009 issue of the journal *Human Reproduction*, a government-funded study found that men in China who handled BPA at factories were four times as likely to report sexual dysfunction as factory workers who had no exposure to the chemical. Workers exposed to BPA were seven times as likely as others to have difficulty ejaculating, the study found.

Conversely, women lose estrogen as they age. So, Lee says, women's

bodies may mask the damaging effects of BPA, including an increased risk of breast cancer.

#### Links to heart disease, erectile dysfunction

Adding to the mounting body of scientific research on BPA, a new study—published Jan. 13 in the online journal PLoS One—has linked the substance to an increased risk of heart disease.

Study coauthor David Melzer, a professor of epidemiology and public health at Peninsula Medical School in Exeter, U.K., says he found a "very clear association" between BPA levels and heart disease risk. "That doesn't mean BPA is causing the heart disease, but it does mean that people with higher BPA levels are more likely to have heart disease," Melzer tells AARP Bulletin Today.

Melzer and his colleagues surveyed data from a previous study of nearly 3,000 adults and found that those with higher BPA levels were significantly more likely to have heart disease: 60-year-old men in the top third of BPA concentrations reported a roughly 50 percent greater chance of heart disease than those in the lowest third of BPA levels, Melzer says.

The American Chemistry Council countered that "the robustness of these limited findings is questionable, as fewer than 50 participants [in the study] self-reported health conditions without medical confirmation."

The group declined to comment on whether it would support mandatory labeling if such a measure were proposed.

John Briley writes about health, exercise and travel.

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