

## TAINTED TURKEY? TOXIC CHEMICAL FOUND IN FAMILIAR FOOD<sup>1</sup>

Emily Main<sup>©</sup>

A chemical recently dubbed "toxic" by the Canadian government may infiltrate your Thanksgiving dinner—or tonight's dinner, according to a new study published in the journal *Environmental Science & Technology*. Researchers from the University of Texas found detectable levels of bisphenol-A (BPA)—a chemical used in food packaging that researchers have linked to every ailment from heart disease to sperm damage—in fresh turkey and a variety of other, mostly canned, food products.

Similar research on BPA in food has been conducted by Consumers Union, the publishers of *Consumer Reports* magazine, and by advocacy groups like the Environmental Working Group. But this is the first academic study published in a peer-reviewed journal to analyze the levels of BPA found in the U.S. food supply, says the study's lead author Arnold Schecter, MD, MPH, professor of environmental and occupational health sciences at the University of Texas School of Public Health. "It struck us as rather odd that some other university or government team hadn't picked up on the idea," he says. Whether that has to do with industry influence or simple lack of funding, the fact remains that his team found BPA in turkey and other Thanksgiving staples like canned green beans and canned corn. Even your pet's food may be BPA-contaminated.

**THE DETAILS:** The authors bought 105 samples of human and pet food from three grocery stores in Dallas earlier this year—three each of 31 foods packaged in either cans or plastic, four individual samples of fresh meat and fish, and eight individual canned or plastic-wrapped dog and cat foods.

Of all the products tested, 63 had detectable levels of BPA. The highest levels were found in canned goods, and the product with the most BPA was a can of Del Monte Fresh Cut Green Beans. (Almost all food cans are lined with an epoxy resin containing BPA.) But a plastic container of Chef Boyardee Spaghetti and Meatballs also landed in the top 10. The researchers also found detectable, though low, levels of BPA in fresh turkey, and in three of the eight dog and cat foods tested.

An unexpected finding was that the levels of BPA often varied from can to can, and 11 of the canned foods tested had no detectable levels of BPA, suggesting that food manufacturers are using some can linings that don't leach BPA. For instance, one can of the Del Monte Fresh Cut Green Beans contained 65 parts per billion (ppb) while another contained 26.6 ppb. One can of Progresso Vegetable and Rice Soup contained 22.7 ppb, while another contained 15.6. And contrary to the belief that acidic foods cause greater leaching of BPA from cans into foods, the acidity of the foods in this study didn't seem to have an influence. The highest BPA levels were found in foods with a pH of 6, which is one level above neutral and more basic than acidic, and some acidic foods they tested, such as canned tomato paste and pineapple chunks, contained no detectable BPA at all.

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Finally, the authors used their findings to calculate how much BPA a 155-pound adult and a 45-pound child (the average weight for a 5- to 6-year-old) might be exposed to, were they to eat a serving of some of these foods. They found that kids would ingest nearly twice as much BPA per pound of body weight per serving than adults do, even if they ate the same foods. Using the Progresso Light Homestyle Vegetable and Rice Soup as an example, they calculated that the adult might ingest 0.13 micrograms per kilogram of body weight per day, whereas a child would ingest 0.23 micrograms per kilogram of body weight per day.

**WHAT IT MEANS:** We're learning how little we really know about the presence of this chemical in our food supply. Because the levels of BPA vary so much from product to product, there are a lot of unknowns about where the chemical is coming from, Dr. Schechter says. It could be that some cans just contain more BPA than others, or that because some foods, such as green beans, are subjected to higher temperatures during processing, there could be greater leaching of BPA from the can lining into the food. "We're just not certain whether [high BPA levels] are intrinsic to the food or the cans used or the processing," he says. But it is concerning that it's there—and that BPA is mixing with a cocktail of other chemicals, from plasticizers to flame retardants to pesticides, that are cropping up in our food supply. For instance, a growing body of research suggests that food could be a primary exposure source of hormone-disrupting phthalates, a class of chemicals commonly used in synthetic fragrances and other consumer products. Other studies point to food as a major exposure source of PBDEs, a class of flame retardants used in furniture and electronics, which are interfere with the thyroid gland and have been implicated in infertility.

It all adds up to a disturbing equation. "We know from work at the CDC that there are a large number of chemicals in the bodies of the general population," he says. "And we keep adding low levels of toxic chemicals to low levels of other chemicals. What's the toxicity in these mixtures? We don't know that." The government also needs to step up to the plate in terms of how much of this stuff we should be exposed to, he adds. "One of the things that was interesting to me was that the levels that are considered safe or reasonable by the government are five times higher than what certain scientists think they should be," he says, referring to the Environmental Protection Agency's current guidelines of 50 micrograms per kilogram of body weight per day as an upper limit, versus the 10 micrograms that other researchers suggest should be the upper limit.

"BPA is not like arsenic. It's not going to kill someone from eating a single can of beans," Dr. Schechter says. "But on a population basis, it's not a good thing to keep increasing our intake of toxic chemicals."

### **Here are some ways to voice your concerns about BPA pollution in your food:**

**Write to Government.** Because there's no way of knowing how BPA can wind up in things like fresh turkey, or in foods packaged in plastics that may not contain BPA, the best solution is to simply get it out of our food supply.

**Vote with your dollars.** Opt for fresh, whole foods whenever possible. Avoid canned food and looked for alternatives packaged in glass bottles, cartons, and safer plastics (look for the numbers 1, 2, 4, or 5 in the recycling triangle on the product's bottom).