# Bisphenol A, chemical used to make plastic, lingers in body, study finds

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A study released Wednesday finds that bisphenol A, a chemical widely used to make plastic and suspected of causing cancer, stays in the body much longer than previously thought.

The findings are significant because the longer the chemical lingers in the body, the greater chance it has of doing harm, scientists say.

Researchers from the University of Rochester in New York also say the chemical may get into the body from sources such as plastic water pipes or dust from carbonless paper and not only from food containers that leach the chemical when heated.

The study results, published Wednesday in Environmental Health Perspectives, have sparked a flurry of concern and renewed calls for regulation.

"The study reinforces the urgent need for stricter government oversight and regulation of this extremely toxic chemical," said Janet Nudelman, director of program and policy at the Breast Cancer Fund, a health advocacy group. "It adds to what we already know about BPA, a chemical so powerful that at extremely low levels - parts per billion or even parts per trillion - it can cross the placenta and alter the mammary gland of the developing fetus, increasing breast cancer risk later in life."

BPA, used to make baby bottles, dental sealants, food storage containers

and thousands of other household products, was found in 93 percent of Americans tested.

The new study, conducted by Richard Stahlhut at the University of Rochester, used data on humans collected by the U.S. Centers for Disease Control and Prevention. Researchers looked at urine samples of 1,469 U.S. adults. They compared the levels of BPA based on how long the subjects had fasted.

The American Chemistry Council, which represents makers of BPA, maintains that the chemical is safe for all uses. Steven Hentges, spokesman for the trade group, dismissed the study as inherently limited.

"The authors' conclusions are, at best, speculation," Hentges said. "Low levels of BPA found in the data are not a risk to human health."

BPA has been linked to spikes in breast cancer, diabetes and heart disease, even at very low levels. It has also been found to interfere with chemotherapy in breast cancer patients.

The Milwaukee Journal Sentinel had 10 household products tested and found toxic levels of BPA leaching from all of them.

Canada declared BPA to be a toxin and banned its use in baby bottles last year. In the United States, 14 states are considering similar action.

Federal regulators have been divided on the issue.

A group of scientists from the National Toxicology Program expressed some concern last year about the chemical for infants and children. But the Food and Drug Administration has said BPA is safe for all use.

The newspaper found federal regulators favored industry-financed

studies in their assessments. Entire sections of the FDA's assessment contained identical language to reports written on behalf of chemical-makers or others with a financial stake in BPA.

The FDA safety assessment relied on two studies, both paid for by chemical-makers, and ignored hundreds of independent studies that found the chemical to cause harm in laboratory animals.

The FDA's own science advisory board has recommended that the FDA reconsider its ruling. FDA administrators have promised to study the matter further but so far have stood by their assessment.

Stahlhut's study is likely to reignite concerns about the chemical's safety.

"This is bound to shake things up," Stahlhut said. "It is saying that our risk assessments are wrong. Things we thought we knew aren't necessarily so."

The research indicates for the first time that people are either constantly being bombarded with bisphenol A from non-food sources, such as receipts and plastic water piping, or they are storing the chemical in fat cells, unable to get rid of it as quickly as scientists have believed.

"It provides evidence that we are being exposed to more BPA than we think - and that contaminated food and beverages may not even be the main source " of our BPA exposure, said Patricia Hunt, a professor at Washington State University who pioneered studies linking BPA to cancer. "Scary, huh?"

Scientists previously thought that BPA metabolized quickly, with half the concentration eliminated between four and six hours and all of it gone by 24 hours. Instead, Stahlhut, Shanna Swan, also of Rochester, and Wade Welshons of the University of Missouri-Columbia found that the

levels dropped but then leveled off after eight hours - and never disappeared.

"They hang in there like a London fog," Stahlhut said.

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