New study finds endocrine-disrupting plastic chemicals in breast milk

Bisphenols, melamine, and triclosan detected in breast milk, pointing to widespread exposure from plastics and other products

SEATTLE, WA, UNITED STATES, May 6, 2026 /EINPresswire.com/ -- A new peer-reviewed study with research done by Toxic-Free Future, in collaboration with Seattle Children's Research Institute, Emory University, and others found toxic endocrine-disrupting chemicals in breast milk, including bisphenols and melamine, which are used widely especially in plastics and food contact materials, in samples from 50 mothers in Washington state. Breast milk remains an important and healthy nutrition source for infants, when possible, and this study adds evidence that the sources of these chemical exposures require immediate action.

> These exposures highlight the need for stronger safeguards so families are not put in harm's way simply by feeding their babies."
>
> *Dr. Ryan Babadi, Science Director for Toxic-Free Future*

The study, published in the Journal of Exposure Science & Environmental Epidemiology, also identified additional endocrine-disrupting chemicals (EDCs), including the anti-microbial triclosan used in plastics and some personal care products, highlighting the broader range of harmful chemicals nursing mothers and infants are exposed to. The research builds on earlier Toxic-Free Future findings that detected PFAS, toxic flame retardants, quaternary ammonium compounds, and other chemicals in the same samples.

"These findings show that infants and their mothers are being exposed to hormone-disrupting chemicals used in everyday products, including plastics, during critical stages of development," said Dr. Ryan Babadi, science director for Toxic-Free Future. "These exposures highlight the need for stronger safeguards so families are not put in harm's way simply by feeding their babies."

Key Findings:

Endocrine-disrupting chemicals (EDCs) found in the majority of samples: EDCs, also referred to as hormone-disrupting chemicals, including bisphenols, melamine and a related chemical, and triclosan, were detected in 62% to 92% of breast milk samples.

Plastic chemicals are prevalent: Bisphenol A (BPA) was found in 74% of breast milk samples, while its replacement bisphenol S (BPS) appeared in 78%, showing continued exposure to these plastic chemicals despite some laws and market shifts away from BPA. This also indicates regrettable substitution within the bisphenols class. Triclosan, detected in 62% of samples, is also used in plastics.

Breast milk is a concerning EDC exposure pathway: Estimated EDC exposures for infants through breastfeeding were generally higher than other exposure pathways, such as dermal uptake and dust ingestion or inhalation.

Health experts emphasize that breastfeeding remains the healthiest choice for infants when possible, with well-documented benefits. However, the study's results point to a systemic failure: the chemical industry is allowed to make large volumes of EDCs and companies are still putting EDCs into consumer products and plastics.

"As a pediatrician, I am concerned about the detection of chemicals in breast milk and impacts on infant development," said Dr. Sheela Sathyanarayana, MPH, study senior author and associate director of the Center for Child Health, Behavior and Development at Seattle Children's Research Institute and professor of pediatrics at the University of Washington School of Medicine. "Detection of these contaminants does not take away from the major health benefits of breast milk for infants, including immune factors that help prevent infections. As a society, it's important to try to work together to eliminate these chemical exposures."

The findings come as proposals in Congress seek to significantly weaken basic health protections in the Toxic Substances Control Act (TSCA), the nation's primary chemical safety law. The newly formed Alliance for Health and Safe Chemicals, a coalition of over 85 organizations, warns that rolling back these protections would make it even easier for toxic chemicals, linked to cancer and other health harms, to enter homes, schools, and workplaces.

"We need stronger protections from toxic chemicals, not rollbacks that put our health at risk," added Dr. Babadi. "As the chemical industry pushes to weaken federal protections on chemicals that can harm our health, this study underscores the urgent need to prevent the use of toxic chemicals and stop exposures."
States are already adopting policies to regulate EDCs and other harmful chemicals. Washington state's Safer Products for Washington law is the strongest law in the nation for regulating EDCs and other toxic chemicals in products, plastics, and packaging. The state has banned all bisphenols in beverage can linings and thermal paper including receipts, which recently took effect in January 2026. Washington state is pursuing more potential regulatory action on EDCs and other toxic chemicals in the coming year.

“Washington state has led the way on safer chemicals, but the presence of these chemicals in breast milk shows we need to do more to protect public health,” concluded Dr. Babadi.

To date, 14 states have banned BPA in children’s products. California is currently pursuing legislation to ban all bisphenols in receipts and food packaging, while six states are pursuing legislation to remove bisphenols and other toxic substances from packaging. Several states have taken action on triclosan in personal care products.

Retailers have also been taking proactive action on EDCs in consumer products and food packaging. Nineteen major retailers have restricted bisphenols in receipts nationally. Several retailers have also restricted BPA in private-label canned food and baby products, as well as triclosan in formulated cleaning and personal care products.

"We're still not doing enough to keep endocrine-disrupting chemicals out of women's bodies—and this study makes the consequences impossible to ignore," said Nancy Buermeyer, Director of Program and Policy for Breast Cancer Prevention Partners. "Bisphenols from receipt paper are absorbed directly through the skin, and the highest exposures fall on cashiers—many of them women of childbearing age, increasing the risk for breast cancer. California is considering a bill to ban these chemicals from receipt paper. It's a commonsense step to reduce exposure, and it should become law."

More details on this study can be found at: toxicfreefuture.org/research/endocrine-disrupting-plastic-chemicals-in-breast-milk

BACKGROUND ON ENDOCRINE-DISRUPTING CHEMICALS
Endocrine-disrupting chemicals (EDCs) are individual chemicals or mixtures that interfere with the body’s hormone system, which regulates countless biological processes and bodily functions, including growth, development, reproduction, and metabolism. Even low levels of exposure during sensitive stages of development can have lasting health impacts.

These chemicals are commonly used in everyday products, including plastics, food packaging, personal care products, thermal receipt paper, and more. EDC exposure has been linked to reproductive and developmental harm, cancer, metabolic diseases like obesity and diabetes, and neurological problems. Infants and children are particularly vulnerable.

Stephanie Stohler
Toxic-Free Future
email us here
Visit us on social media:
LinkedIn
Bluesky
Instagram