



Earliest Exposures

A Research Project by Washington Toxics Coalition

**WASHINGTON
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C O A L I T I O N**

Protecting Health
& the Environment

Earliest Exposures



A Research Project by
Washington Toxics Coalition

Study completed in collaboration with
the Commonwealth Biomonitoring Resource Center
and the Toxic-Free Legacy Coalition

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Executive Summary

The fetus is uniquely vulnerable to the effects of toxic chemicals. In this study, we investigated the environment experienced by nine fetuses—their mothers. We tested nine pregnant women, from Washington, Oregon, and California, during the second trimester of their pregnancies.

Our tests measured levels of five chemical groups, including phthalates, mercury, perfluorinated compounds or “Teflon chemicals,” bisphenol A, and

the flame retardant tetrabromobisphenol A, in the blood and urine of pregnant women. Tests also measured levels of thyroid hormones, critical for a healthy pregnancy.

Results from this study reveal that children spend their first nine months in an environment that exposes them to known toxic chemicals.



Key Findings

1. Chemicals from everyday products contaminate mothers' bodies, and babies enter the world already exposed to known toxics.

This study detected 13 foreign chemicals in pregnant women, including phthalates, bisphenol A, mercury, and "Teflon chemicals." These chemicals can cause reproductive problems and cancer, disrupt hormonal systems such as the thyroid, and can impair brain development.

Specific findings include:

- Every woman we tested was exposed to bisphenol A, the hormone disrupting chemical used to make polycarbonate plastic and the lining for food cans.
- Each woman had at least two and as many as four "Teflon chemicals," or perfluorinated compounds, in her blood. These are chemicals used to create stain-protection products and non-stick cookware.
- Mercury, known to harm brain development, was in the blood of every woman in our study.
- Every woman was exposed to at least four phthalates, the plasticizers and fragrance carriers found in consumer products from shower curtains to shampoo.

2. The developing fetus is exquisitely vulnerable to the effects of toxic chemicals.

The fetus develops at a breakneck pace in the womb, and that development is easily derailed by toxic chemicals. The fetus also has a very limited ability to detoxify foreign chemicals. With chemicals like bisphenol A and the others in our tests passing easily through the placenta, there is cause for grave concern about their impacts on fetal development.

3. Policymakers can protect mothers and children by ensuring that only the safest chemicals are used in products sold in the United States.

States have taken the lead by passing policies that begin to take action on the most hazardous chemicals, requiring manufacturers to report their use and replace them with safer chemicals. An updated federal law would protect mothers and children in all states from harmful chemicals.

Recommendations

The United States operates under a toxics law that allows manufacturers to continue using chemicals with known hazards. The Toxic Substances Control Act (TSCA), meant to keep chemicals that can harm our health out of the products we buy, has failed in its mission. Since its 1976 passage, it has resulted in testing of only 200 chemicals out of 80,000 believed in current production. This tremendous dearth of protection has inspired action at the state level and Congressional proposals to reform TSCA.

To adequately protect all people, we recommend the following actions for states and the federal government:

1. Pass policies that protect the most vulnerable. We need policies that keep toxic chemicals away from pregnant women and the developing fetus by doing the following:

- Immediately initiate action to eliminate the use of persistent toxic chemicals, which are those that build up in our bodies or are passed on to the next generation.
- Reduce the use of chemicals that can cause serious health problems such as cancer and reproductive harm, can disrupt the normal function of hormones, or can lead to learning disabilities.
- Allow manufacturers to create consumer products using only chemicals they have tested fully for safety and that do not cause cancer, reproductive harm, disrupt hormones, or cause learning disabilities.

2. Hold industry responsible for testing chemicals and providing full information on their hazards.

Chemical manufacturers should test chemicals and provide full information on their hazardous properties and potential impact on health and the environment. The public, workers, and businesses have a right to know what possible harms might result from these chemicals, and health and environmental agencies need this information to make the right decisions to protect health.

3. Maintain the ability of states to set the highest standards to protect health. States are proving that they respond to the need to protect public health with strong, sensible policies. That ability to respond must be maintained, with enhanced coordination between state and federal governments and between federal agencies. Specifically, new federal laws must preserve the rights of the states to enact legislation that is more protective than federal law.