

Common plastics chemical could harm boys' development

September 4 2023, by Cara Murez



Phthalates are commonly used in plastics, and researchers have now tied

them to developmental issues in toddler boys who were exposed to the chemical in the womb.

The new study links the chemicals to emotional and behavioral development issues in 2-year-old boys who were exposed during the first trimester of pregnancy.

"Our findings ... underscore the potential impact of maternal exposure to phthalates on children's emotional and behavioral development, particularly among boys," said lead author Liron Cohen-Eliraz, who conducted the research as part of her doctoral dissertation at Hebrew University of Jerusalem in Israel.

"Our study adds to the growing body of evidence highlighting the need for greater environmental awareness, and action to minimize exposure to harmful chemicals during pregnancy," she said in a university news release.

These "everywhere plastic" chemicals are used in vinyl flooring, lubricating oils, soap, shampoo and so much more. [The United States](#) has largely banned import and sale of toys and childcare products containing phthalates. Several states have their own restrictions.

Phthalates are endocrine-disrupting chemicals that cross the placenta. When absorbed by the fetus, they can either mimic or block female hormones, or in males, suppress hormones involved in male sexual development.

For this study, researchers recruited women who were 11 to 18 weeks pregnant. Their urine was analyzed for [phthalate](#) byproducts (DEHP, DiNP and MBzBP).

The infants' developmental and behavioral progress was assessed at age

2.

Boys exposed to higher DEHP levels during the first trimester scored lower in measures of personal and [social development](#). These are skills people use to interact and communicate with others.

Toddler boys also scored higher on scales of emotional reactivity, anxiety and depression. They also had [health issues](#) that can be related to anxiety, the investigators found.

No differences were seen in girls' exposure to varied levels of DEHP during pregnancy, according to the report.

The researchers said more study is needed to better understand the long-term implications of endocrine-disrupting chemicals on [human health](#) and development.

The findings were published in the September issue of the journal *NeuroToxicology*.

More information: Liron Cohen-Eliraz et al, Prenatal exposure to phthalates and emotional/behavioral development in young children, *NeuroToxicology* (2023). [DOI: 10.1016/j.neuro.2023.07.006](https://doi.org/10.1016/j.neuro.2023.07.006)

The U.S. Centers for Disease Control and Prevention has more on [phthalates](#).

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