

Researchers find increased risk of birth defects in babies after first-trimester exposure to lithium

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Researchers from the Icahn School of Medicine at Mount Sinai found an elevated risk of major congenital malformations in fetuses after first-trimester exposure to lithium, in the largest study ever to examine the risk of birth defects in lithium-exposed babies.

Nearly one and one-half times as many babies exposed to [lithium](#) during the first trimester experienced major malformations compared to the unexposed group (7.4 percent compared with 4.3 percent). In addition, risk for neonatal hospital readmission was nearly doubled in lithium-exposed babies compared to the unexposed group (27.5 percent versus 14.3 percent). However, lithium exposure was not associated with [pregnancy complications](#) or other delivery outcomes, such as pre-eclampsia, preterm birth, gestational diabetes, or low birth weight. In addition, the researchers found that the risk of [birth defects](#) in lithium-exposed infants was lower than previously thought, because previous studies did not look at large

enough populations.

The study will be published online on Monday, June 18, in *The Lancet Psychiatry*.

The study examined the risk of [congenital malformations](#) such as heart defects and [pregnancy complications](#) in a meta-analysis of primary data from 727 lithium-exposed pregnancies compared to a control group of 21,397 pregnancies in mothers with a mood disorder who were not taking lithium. The data was taken from six study sites in Denmark, Canada, the Netherlands, Sweden, the United Kingdom, and the United States. The researchers also measured delivery outcomes and neonatal hospital readmissions within 28 days of [birth](#).

Lithium therapy is widely recommended as a first-line treatment for bipolar disorder, which affects approximately 2 percent of the world's population. Lithium helps to prevent severe depression and mania. In the United States, bipolar disorder is more commonly treated with anti-psychotic drugs instead of lithium. "Women should be informed on malformation risk in first-trimester exposed infants, but also about very high relapse risks for mental illness both during pregnancy and during the postpartum period," said the study's senior author, Veerle Bergink, MD, Ph.D., Professor of Psychiatry and of Obstetrics, Gynecology, and Reproductive Science, Icahn School of Medicine at Mount Sinai. "Given the well-documented effectiveness of lithium in reducing relapse in the perinatal period, some important clinical considerations are either to continue lithium in a lower dose during the first trimester or to restart lithium after the first trimester or immediately postpartum."

Provided by The Mount Sinai Hospital

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