

# New study confirms safety and benefits of maternal COVID-19 vaccination for newborns

October 23 2023

---



Credit: Unsplash/CC0 Public Domain

Infants of pregnant women who received an mRNA COVID-19 vaccine during pregnancy had lower risks of severe health outcomes, neonatal

death, and neonatal intensive care unit (NICU) admission, according to a new study from researchers at the Institute for Clinical Evaluative Sciences (ICES) and the University of Toronto.

The study included more than 140,000 infants in Ontario, and also showed that newborn and six-month readmissions to the NICU did not increase in infants of mothers vaccinated during pregnancy. Titled "Newborn and early infant outcomes following maternal COVID-19 vaccination during pregnancy: a population-based [retrospective cohort study](#)," the study was published in *JAMA Pediatrics*.

"Our results were consistent across the number of doses someone received during pregnancy, the trimester in which they were vaccinated, and the vaccine product they received, which gives us more confidence that there is no increase in the adverse newborn and infant outcomes we assessed," says lead author Sarah Jorgensen, a pharmacist, ICES post-doctoral trainee, and Ph.D. candidate at the University of Toronto.

The researchers analyzed linked health records from ICES, and included 142,006 [live births](#) in Ontario, Canada, where the mother had received an mRNA vaccination during pregnancy. Expected deliveries between May 1, 2021 and September 2, 2022 were included. In total, 85,670 (60%) of infants were exposed to one or more COVID-19 [vaccine doses](#) in utero.

Study findings showed that:

- Compared with mothers in the unvaccinated group, those who were vaccinated during pregnancy were more likely to: be over 30 years of age; having their first baby; had received a [flu vaccine](#) during either of the two previous influenza seasons; and were residents of urban areas and areas with higher incomes.
- Compared to infants unexposed to the vaccine, those exposed to

the vaccine had lower risks of severe health outcomes (7.3% versus 8.3%); [neonatal death](#) (0.09% versus 0.16%); and NICU admission (11.4% versus 13.1%).

- There was no association between maternal vaccination during pregnancy and neonatal readmission to hospital (5.5% versus 5.1%), nor to six-month hospital readmission (8.4% versus 8.1%).

One limitation of the study is that the analyses were restricted to live births, which could mean that the effects of vaccination on miscarriage and stillbirths were not observed. However, studies that have analyzed data from Ontario have not reported an increased risk of miscarriage or stillbirth in women who received COVID-19 vaccines during pregnancy. In fact, some studies found a lowered risk of stillbirth.

"Many women feel nervous about receiving vaccines during pregnancy, but our study will hopefully provide some reassurance on the safety of COVID-19 vaccine during [pregnancy](#) for newborns and young infants," says Jorgensen.

**More information:** Newborn and early infant outcomes following maternal COVID-19 vaccination during pregnancy, *JAMA Pediatrics* (2023). [DOI: 10.1001/jamapediatrics.2023.4499](https://doi.org/10.1001/jamapediatrics.2023.4499)

Provided by ICES

Citation: New study confirms safety and benefits of maternal COVID-19 vaccination for newborns (2023, October 23) retrieved 28 April 2024 from <https://medicalxpress.com/news/2023-10-safety-benefits-maternal-covid-vaccination.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private

study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.