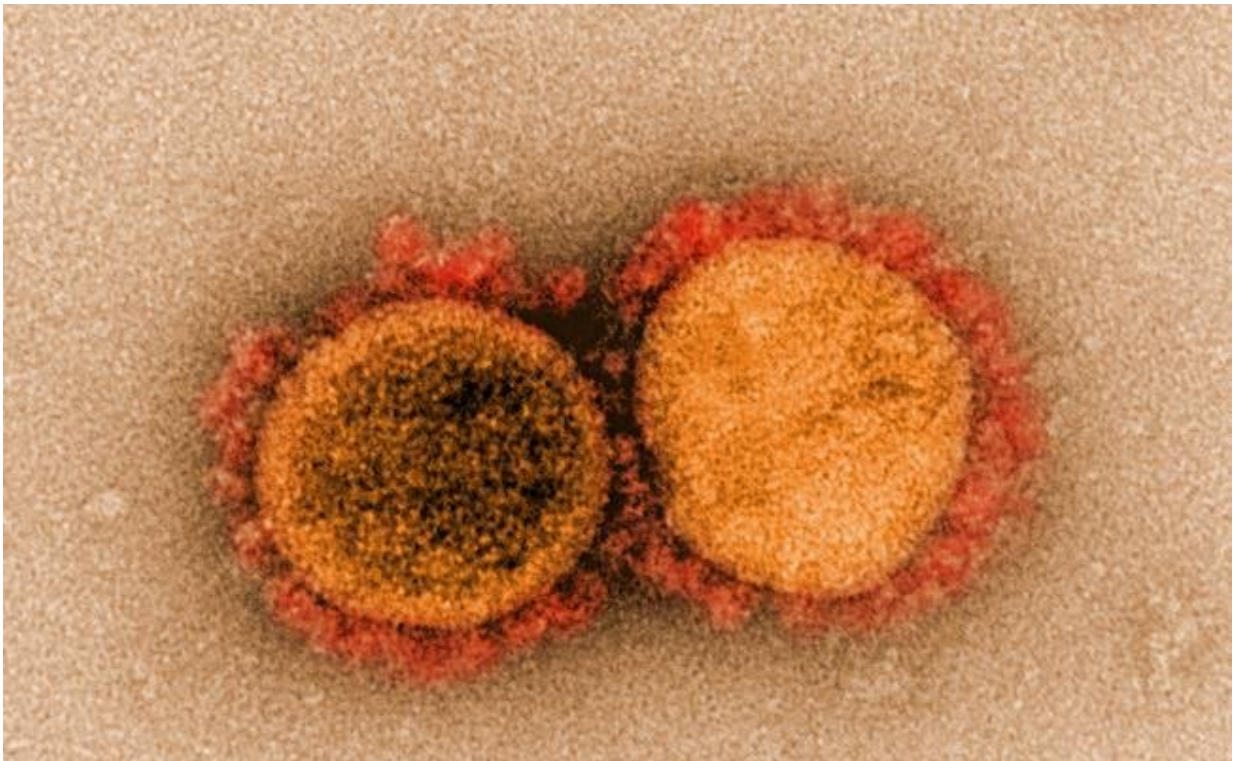


Mother to baby transmission of COVID-19 infection, possible but rare: study

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Transmission electron micrograph of SARS-CoV-2 virus particles, isolated from a patient. Image captured and color-enhanced at the NIAID Integrated Research Facility (IRF) in Fort Detrick, Maryland. Credit: NIAID

SARS-CoV-2, the virus causing the COVID-19 infection, can be transmitted from mother to baby before, during and after childbirth—but such occurrences are rare, a new study reveals.

Overall, fewer than two percent of babies born to mothers with SARS-CoV-2 infection also test positive for the virus, but they are more likely to test positive when the women have severe COVID-19 or were diagnosed after childbirth.

Experts also discovered that vaginal births and breast feeding do not increase the likelihood of babies testing positive for SARS-CoV-2 when their mothers have the infection.

An international research team, led by the University of Birmingham's WHO Collaborating Center for Global Women's Health, published its findings today in *BMJ* after examining data from around the globe relating to more than 14,000 babies born to mothers with COVID-19.

Overall, 1.8% of the 14,271 babies born to mothers with SARS-CoV-2 infection tested positive for the virus using PCR tests.

Study lead Shakila Thangaratinam, Professor of Maternal and Perinatal Health at the University of Birmingham, commented: "Ours is the first study to use the World Health Organization's stringent methods to show that it is possible for the virus to be spread from the mother to baby while in the womb, during childbirth, and after delivery.

"However, parents and [healthcare professionals](#) can be reassured that only a very small proportion of babies born to mothers with SARS-CoV-2 test positive. This implies that the risks of infection to such babies are rare.

"Mothers should also be reassured about the low risk of viral transmission through vaginal birth, skin-to-[skin contact](#) and breastfeeding—all of which should be encouraged."

Professor Thangaratinam added that healthcare professionals and [policy](#)

[makers](#) need to be aware of the expected burden of SARS-CoV-2 positivity in babies, and that they can be infected at any time during pregnancy and delivery—highlights the need for [appropriate measures](#) to reduce risk of viral transmission in the postnatal period.

The research team recommends that, since babies born to mothers with severe SARS-CoV-2 are more likely to test positive, they will need to be tested after birth and monitored closely. Vaccination in pregnancy should be further encouraged to prevent infection and severe disease in mothers.

The team will analyze new studies as further evidence becomes available and also explore the effects that SARS-CoV-2 variants of concern and vaccination have on newborns.

More information: Offspring SARS-CoV-2 positivity and timing of mother-to-child transmission: A living systematic review and meta-analysis, *BMJ* (2022). DOI: 10.1136/bmj-2021-067696 , www.bmj.com/content/376/bmj-2021-067696

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