

Most women who catch COVID-19 when pregnant pass antibodies to their unborn babies

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New research presented at this year's European Congress of Clinical Microbiology & Infectious Diseases (ECCMID) in Lisbon, Portugal, (23-26 April) found that most women who catch COVID-19 when

pregnant pass antibodies to their unborn babies.

Antibodies to infections are known to be transferred from mother to baby during the last three months of pregnancy, providing the baby with some protection against that particular illness when they are born.

Little is known, however, about how well COVID antibodies are transferred from mother to child, either in vaccinated or unvaccinated populations.

This study focuses on [pregnant women](#) who caught COVID before vaccines were widely rolled out.

Dr. Liliana Gabrielli and colleagues at the IRCCS St. Orsola Polyclinic, University of Bologna, Bologna, Italy, studied more than 4,000 women who gave birth in Bologna between July 1, 2020 and March 31, 2021.

The women underwent PCR tests to check for current COVID infection. They also gave [blood samples](#) which were tested for antibodies, which provide evidence of past infection.

All of the newborns were given PCR tests to check for COVID. Newborns whose mothers tested positive for antibodies were also tested for antibodies.

136 of the women (3.4%) had antibodies to COVID in their blood. 26% of these women had both IgG (older infection) and IgM (more recent/current infection) antibodies. 74% of the women had IgG antibodies but were IgM negative.

Blood samples were available from 73 babies born to mothers with antibodies to COVID.

None of the 73 babies had IgM antibodies. This was expected because IgM does not cross the placenta.

11/73 babies (15%) were IgG and IgM negative. The other 62 (85%) were IgG positive.

All 73 babies had negative PCRs when tested shortly after birth, indicating they didn't have COVID and that the antibodies had been passed to them by their mother, rather than being made by themselves.

While antibody transfer was high, levels in the newborns were slightly lower than in their mothers.

Dr. Gabrielli says: "This study of pregnant women and their newborns, which was carried out in the pre-vaccination era, found that 3.4% of the women had COVID-19 during pregnancy.

"Most of these [women](#) passed antibodies to their babies. However, the protection provided by these antibodies will gradually decrease over time and disappear within a 100 days of birth in most cases.

"Other studies are looking at how well [antibodies](#) produced by vaccination pass from mother to child."

Provided by European Society of Clinical Microbiology and Infectious Diseases

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