

COVID-19 vaccine given during pregnancy guards against severe COVID in newborns

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A new government study is the first to confirm that COVID-19

vaccination during pregnancy delivers real protection to newborns.

"While we know these antibodies cross the placenta, until this study we have not yet had data to demonstrate whether the antibodies might provide protection for the baby against COVID-19," said Dr. Dana Meaney-Delman, chief of the Infant Outcomes Monitoring Research and Prevention Branch of the U.S. Centers for Disease Control and Prevention (CDC).

"The data CDC is publishing today provides real-world evidence that getting a COVID-19 vaccine during pregnancy might help protect infants less than 6 months of age from hospitalization due to COVID-19," Meaney-Delman added at a media briefing Tuesday.

"The majority of babies, actually 84%, who were hospitalized with COVID-19 were born to people who were not vaccinated during pregnancy. And most concerning, they found that among babies with COVID-19 who were admitted to the ICU—the sickest babies—88% were born to mothers who were not vaccinated before or during pregnancy," Meaney-Delman said.

The only baby who died in the study was born to an unvaccinated mother, she noted.

Overall, the study found that "babies less than 6 months old whose mothers were vaccinated were 61% less likely to be hospitalized with COVID-19," Meaney-Delman said. "As soon as a pregnant woman is willing to be vaccinated, we recommend that she go ahead and do so."

That includes women at any stage of pregnancy—or even prior to pregnancy—since recent research has shown that contracting COVID-19 while expecting can lead to devastating consequences.

"There is a huge benefit to the pregnancy and to having a healthy mother getting vaccinated prior to pregnancy," Meaney-Delman said. "I don't want us to lose sight of that piece. While we don't know there is actual immune protection conferred, we know that might protect a mom from getting COVID during pregnancy, which is associated with preterm birth, with stillbirth, with pregnancy complications."

Still, the timing of the shots in this latest study did make a difference in how protective the vaccine was for an infant.

Vaccination was 80% effective at protecting a newborn against severe COVID-19 if a mom got her two shots after 21 weeks of gestation, the researchers found.

Any earlier in pregnancy and the vaccine's effectiveness against hospitalization is only around 32%, according to the data published online Feb. 15 in the CDC's *Morbidity and Mortality Weekly Report*.

The findings jibe with a December [study](#), which found that antibody levels are higher in babies' umbilical cord blood when vaccination occurs in a woman's third trimester.

But that study, which appeared in the journal *Obstetrics & Gynecology*, argued that antibody levels from vaccination earlier in pregnancy were still high enough to likely prove protective.

For the latest study, researchers led by CDC medical epidemiologist Dr. Manish Patel evaluated 176 infants younger than 6 months of age hospitalized for COVID-19 at 20 pediatric hospitals across 17 states between July 2021 and January 2022. Their cases were compared with 203 babies who were COVID-free but hospitalized during the same period.

About 16% of babies hospitalized for COVID-19 had moms who had received two vaccine doses during pregnancy. By comparison, 32% of the control group babies had moms vaccinated while expecting.

The findings are consistent with the possibility that COVID-19 antibodies can transfer across the placenta and provide protection to infants following delivery, the researchers concluded.

"With infants not currently age-eligible for vaccination and infant hospitalization rates remaining at the highest levels of the pandemic, this study suggests that maternal COVID-19 vaccination during pregnancy might protect infants aged

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