

# **In small study, no sign that coronavirus can be passed to baby during pregnancy**

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There's some good news about the new coronavirus: Preliminary

research suggests that the virus cannot be transmitted from an infected pregnant woman to the fetus.

The researchers stressed that the study population was small—just nine pregnant women—and a number of other factors mean questions linger when it comes to maternal-fetal transmission.

For the study, the researchers analyzed the medical records of the women, who ranged from 26 to 40 years of age. All of the women lived in Wuhan, China, the epicenter of the newly named COVID-19 coronavirus outbreak, which has so far infected nearly 45,000 people and killed 1,113 in China.

All of the women had developed pneumonia as a result of their infection, and all were in their third trimester, according to a team led by Yuanzhen Zhang of Zhongnan Hospital of Wuhan University, China. The women all recovered from their illness and were given antibiotics and oxygen therapy. Six received antiviral therapy as well.

As for the deliveries, there were two cases of fetal distress (a condition where the baby experiences a temporary low level of oxygen), and two deliveries involved a premature rupture of the fetal membrane, but all nine pregnancies resulted in live births.

Most importantly, six of the nine newborns were tested and showed no signs of infection with COVID-19. Babies were tested for presence of the virus via throat swab samples, umbilical cord blood and sampling of amniotic fluid, the team noted. None of these samples turned up positive for COVID-19.

The sampling was done in the operating room at the time of birth, to help guarantee that no outside contamination had interfered with the results.

The study was published Feb. 12 in *The Lancet*, and was prompted by a prior report of an infant born to a mother infected with the coronavirus. That baby did test positive for the coronavirus within 36 hours of birth.

The new study suggests that infection in the womb is not likely. However, the Chinese team stressed that their findings are based on a small number of cases collected over a short period of time. The cases also only included women who were late in their pregnancies and gave birth by cesarean section.

That means that it's still unclear how infection with the coronavirus during the first or second trimester of pregnancy affects mothers and their babies, or whether the virus can be passed from mother to child during a vaginal birth.

"It is important to note that many important clinical details of this case are missing, and for this reason, we cannot conclude from this one case whether intrauterine infection is possible. Nonetheless, we should continue to pay special attention to newborns born to mothers with COVID-19 pneumonia to help prevent infections in this group," Zhang said in a journal news release.

Study co-author Huixia Yang, of Peking University First Hospital, added that "this is important to study because pregnant women can be particularly susceptible to respiratory pathogens and severe pneumonia because they are immunocompromised and because of pregnancy-related physiological changes."

Speaking in the news release, Yang said that pregnancy-linked factors "could leave them at higher risk of poor outcomes. Although in our study no patients developed severe pneumonia or died of their infection, we need to continue to study the virus to understand the effects in a larger group of pregnant women."

Follow-up of the women and children in this study is needed to assess their long-term health, the study authors said.

The researchers noted that these findings are similar to those for severe acute respiratory syndrome (SARS) [infection](#) in pregnant [women](#). There was no evidence that the SARS virus was passed from mother to child during pregnancy or birth.

The study results are valuable for prevention and treatment of COVID-19, Jie Qiao, of Peking University Third Hospital, China, wrote in an accompanying editorial. She noted that in this small study, the rate of obstetric complications with COVID-19 actually appears to be less than that seen among [pregnant women](#) infected with SARS.

**More information:** The U.S. Centers for Disease Control and Prevention has more on the [new coronavirus](#).

Huijun Chen et al, Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records, *The Lancet* (2020).  
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