COVID-19 and Pregnancy

Pregnant and recently pregnant individuals who become infected with the COVID-19 virus are at high risk of requiring extra medical care.

According to the Centers for Disease Control and Prevention (CDC), between January 22, 2020, and November 29, 2021, 148 327 pregnant individuals had documented infection with SARS-CoV-2 (the virus that causes COVID-19) and 241 had died of COVID-19. Of the 121 973 pregnant people with information on hospitalization available, 20.6% were hospitalized with COVID-19 or pregnancy-related conditions.

How Does COVID-19 Affect Pregnant People?

Pregnant and recently pregnant individuals with COVID-19 are more likely than nonpregnant people of similar age to require intensive care unit admission, mechanical ventilation, or extracorporeal membrane oxygenation (ECMO) through a machine that acts as an artificial lung. Pregnant people also have higher rates of death due to COVID-19. Risk factors for more severe illness and death among pregnant people with COVID-19 include older age, high body mass index, and preexisting comorbidities (such as high blood pressure and diabetes).

How Can COVID-19 Affect a Fetus?

COVID-19 during pregnancy increases the risk of preterm delivery and is associated with higher rates of fetal death before or during delivery (stillbirth). Data from the CDC indicate that from March 2020 to September 2021, the stillbirth rate was 273 of 21653 deliveries (1.26%) among US women with COVID-19 compared with 7881 of 1227981 deliveries (0.64%) among women without COVID-19.

Is COVID-19 Vaccination Safe During Pregnancy?

None of the COVID-19 vaccines contains live virus, so pregnant people and fetuses cannot develop COVID-19 from vaccination. Moreover, ongoing monitoring of COVID-19 vaccination during pregnancy has shown no increase in miscarriage or other safety concerns in pregnancy and no adverse effects on fetal or postnatal development.

COVID-19 vaccination is recommended before pregnancy and any time during pregnancy to decrease the risk of severe illness and death in pregnant individuals and to decrease the risk of adverse effects on the fetus, including preterm birth and death. However, the CDC reports that only 35% of pregnant people aged 18 to 49 years in the US were fully vaccinated against COVID-19 prior to or during pregnancy as of November 27, 2021.

COVID-19 vaccination and pregnancy

COVID-19 vaccination is recommended before and during pregnancy to decrease the risk of severe illness and death in pregnant individuals and to decrease the risk of adverse effects on the fetus, including preterm birth and death.

In the US, any of the 3 currently authorized COVID-19 vaccines may be given to people who are pregnant or were recently pregnant. For individuals younger than 18 years, Pfizer-BioNTech is currently the only approved vaccine. Pregnant, lactating, and recently pregnant people younger than 50 years should be aware of the rare risk of thrombosis with thrombocytopenia syndrome, a condition characterized by blood clots and low platelet counts that has been reported after receipt of the Johnson & Johnson/ Janssen COVID-19 vaccine.

COVID-19 Vaccination During Breastfeeding

COVID-19 vaccination is recommended for individuals who are breastfeeding to decrease their risk of COVID-19. In addition, people who receive an mRNA COVID-19 vaccine (Pfizer-BioNTech or Moderna) have been found to have antibodies in their breast milk, which may help protect infants from infection.

COVID-19 Boosters During Pregnancy and Postpartum

The American College of Obstetricians and Gynecologists recommends that pregnant and recently pregnant people (up to 6 weeks postpartum) receive a booster dose of COVID-19 vaccine after completing their initial COVID-19 vaccine or vaccine series.

FOR MORE INFORMATION

Centers for Disease Control and Prevention

Author: Kristin Walter, MD, MS

Published Online: December 10, 2021. doi:10.1001/jama.2021.22679

Author Affiliation: Associate Editor, *JAMA*.

Conflict of Interest Disclosures: None reported.

Sources: American College of Obstetricians and Gynecologists

DeSisto CL, Wallace B, Simeone RM, et al. MMWR Morb Mortal Wkly Rep. 2021;70(47):

1640-1645. doi:10.15585/mmwr.mm7047e1

Zambrano LD, Ellington S, Strid P, et al. MMWR Morb Mortal Wkly Rep. 2020;69(44):

1641-1647. doi:10.15585/mmwr.mm6944e3

The JAMA Patient Page is a public service of *JAMA*. The information and recommendations appearing on this page are appropriate in most instances, but they are not a substitute for medical diagnosis. For specific information concerning your personal medical condition, *JAMA* suggests that you consult your physician. This page may be photocopied noncommercially by physicians and other health care professionals to share with patients. To purchase bulk reprints, email reprints@iamanetwork.com.

JAMA February 22, 2022 Volume 327, Number 8

790