

# Coronavirus Disease 2019 (COVID-19)

## Frequently Asked Questions and Answers: Coronavirus Disease 2019 (COVID-19) and Pregnancy

### Pregnant women

**Q: Are pregnant women more susceptible to infection, or at increased risk for severe illness, morbidity, mortality with COVID-19, compared with the general public?**

A: We do not have information from published scientific reports about susceptibility of pregnant women to COVID-19. Pregnant women experience immunologic and physiologic changes which might make them more susceptible to viral respiratory infections, including COVID-19. Pregnant women also might be at risk for severe illness, morbidity, or mortality compared to the general population as observed in cases of other related coronavirus infections [including severe acute respiratory syndrome coronavirus (SARS-CoV) and Middle East respiratory syndrome coronavirus (MERS-CoV)] and other viral respiratory infections, such as influenza, during pregnancy.



Interim Guidance on breastfeeding for a mother confirmed or under investigation for COVID-19

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Pregnant women should engage in usual preventive actions to avoid infection like washing hands often and avoiding people who are sick.

**Q: Are pregnant women with COVID-19 at increased risk for adverse pregnancy outcomes?**

A: We do not have information on adverse pregnancy outcomes in pregnant women with COVID-19. Pregnancy loss, including miscarriage and stillbirth, has been observed in cases of infection with other related coronaviruses [SARS-CoV and MERS-CoV] during pregnancy. High fevers during the first trimester of pregnancy can increase the risk of certain defects.

**Q: Are pregnant healthcare personnel at increased risk for adverse outcomes if they care for patients with COVID-19?**

A: Pregnant healthcare personnel (HCP) should follow [risk assessment](#) and [infection control](#) guidelines for HCP exposure to patients with suspected or confirmed COVID-19. Adherence to recommended infection prevention and control practices is an important part of protecting all HCP in healthcare settings. Information on COVID-19 in pregnancy is very limited; facilities may want to consider limiting exposure of pregnant HCP to patients with confirmed or suspected COVID-19, especially during higher risk procedures (e.g., aerosol-generating procedures) if feasible based on staffing available.

### Transmission during pregnancy or during delivery

**Q: Can pregnant women with COVID-19 pass the virus to their fetus or newborn (i.e. vertical transmission)?**

A: The virus that causes COVID-19 is thought to spread mainly by close contact with an infected person through respiratory droplets. Whether a pregnant woman with COVID-19 can transmit the virus that causes COVID-19 to her fetus or neonate by other routes of vertical transmission (before, during, or after delivery) is still unknown. However, in limited recent case series of infants born to mothers with COVID-19 published in the peer-reviewed literature, none of the infants have tested positive for the virus that causes COVID-19. Additionally, virus was not detected in samples of amniotic fluid or breastmilk.

Limited information is available about vertical transmission for other coronaviruses (MERS-CoV and SARS-CoV) but vertical transmission has not been reported for these infections.

## Infants

**Q: Are infants born to mothers with COVID-19 during pregnancy at increased risk for adverse outcomes?**

A: Based on limited case reports, adverse infant outcomes (e.g., preterm birth) have been reported among infants born to mothers positive for COVID-19 during pregnancy. However, it is not clear that these outcomes were related to maternal infection, and at this time the risk of adverse infant outcomes is not known. Given the limited data available related to COVID-19 during pregnancy, knowledge of adverse outcomes from other respiratory viral infections may provide some information. For example, other respiratory viral infections during pregnancy, such as influenza, have been associated with adverse neonatal outcomes, including low birth weight and preterm birth. Additionally, having a cold or influenza with high fever early in pregnancy may increase the risk of certain birth defects. Infants have been born preterm and small for gestational age to mothers with other coronavirus infections, SARS-CoV and MERS-CoV, during pregnancy.

**Q: Is there a risk that COVID-19 in a pregnant woman or neonate could have long-term effects on infant health and development that may require clinical support beyond infancy?**

A: At this time, there is no information on long-term health effects on infants either with COVID-19, or those exposed to the virus that causes COVID-19 in utero. In general, prematurity and low birth weight are associated with adverse long-term health effects.

## Transmission through breast milk

**Q: Is maternal illness with COVID-19 during lactation associated with potential risk to a breastfeeding infant?**

A: Human-to-human transmission by close contact with a person with confirmed COVID-19 has been reported and is thought to occur mainly via respiratory droplets produced when a person with infection coughs or sneezes.

In limited case series reported to date, no evidence of virus has been found in the breast milk of women with COVID-19. No information is available on the transmission of the virus that causes COVID-19 through breast milk (i.e., whether infectious virus is present in the breast milk of an infected woman).

In limited reports of lactating women infected with SARS-CoV, virus has not been detected in breast milk; however, antibodies against SARS-CoV were detected in at least one sample.

