



## Pregnancy and COVID-19: What we Need to Know

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### ABSTRACT

Since the outbreak of the COVID-19 disease in wuhan china, the infection become a pandemic and a major public health concern all over the world. Pregnant women and their fetuses are at high risk of infectious disease outbreaks. Physiological and mechanical changes in pregnancy increase susceptibility to infections in general, particularly when the cardiorespiratory system is affected, and encourage rapid progression to respiratory failure during pregnancy. We need to further strengthen preventive measures amongst pregnant women against COVID-19, and to reinforce visit time and procedures in obstetric clinics and units with specialized infection control to limit the spread of the disease over the population especially the neonates.

**Keywords:** pregnancy, COVID-19, fetuse

Fairly, since the outbreak of the COVID-19 disease in wuhan china, the infection become a pandemic and a major public health concern all over the world.

The incubation period range is 2-14 days and it was found that people whom were hospitalized for COVID-19 were aged between 49 and 56 years, and almost half of them had chronic diseases. Also, the hospitalized cases were often men. Children have been rarely reported, and frequent manifestations include fever, cough, myalgia, headache, and diarrhea were noted amongst COVID-19 cases (1-3).

Pregnant women and their fetuses are at high risk of infectious disease outbreaks. Physiological and mechanical changes in pregnancy increase susceptibility to infections in general, particularly when the cardiorespiratory system is affected, and encourage rapid progression to respiratory failure during pregnancy. In addition, the Th2 system protects only the fetus during pregnancy, and leaves the mother vulnerable to viral infections, which are more effectively contained by the Th1 system (4,5). Furthermore, COVID-19 disease could generate fetal complications as miscarriage, intrauterine growth restriction, pre-term birth. Fever, which is the prevailing symptom in COVID-19 may also cause childhood inattention disorders due to hyperthermic injury to fetal neurons (1,5).

Additionally, the clinical symptoms reported in pregnant women with confirmed COVID-19 infection were same as those reported for non-pregnant adults with confirmed COVID-19 infection in the general population (6,7).

Controversies exist regarding whether SARS-CoV-2 can be transmitted in utero from an infected mother to her infant before birth. Indeed, several studies confirm absence of viral isolates in the amniotic fluid, cord blood, breast milk and neonatal throat swabs in a subset of these patients, however

other studies found that neonates were infected with SARS-CoV-2 (6 -10).

In studies reporting pregnancies with COVID-19, all women were infected in the third trimester, and all women had a cesarean delivery (6,7,10). Nevertheless, the small number of cases analyzed and the short duration of the studies period may create bias, which suggests that more advanced studies have to be conducted about the effect of COVI-19 disease on pregnant women and fetuses, the vertical transmission of COVID-19 from mother to fetus, and medical and preventive treatment of COVID-19 disease adapted to pregnant women to prevent side effects on the baby (11).

We need to further strengthen preventive measures amongst pregnant women against COVID-19, and to reinforce visit time and procedures in obstetric clinics and units with specialized infection control to limit the spread of the disease over the population especially the neonates.

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