

## COVID-19 Vaccine & Pregnancy

*The CDC recommends COVID-19 vaccination for all people 12 years and older, including people who are pregnant, breastfeeding, trying to get pregnant now, or might become pregnant in the future. Evidence about the safety and effectiveness of COVID-19 during pregnancy has been growing. These data suggest that the benefits of receiving a COVID-19 outweigh any known or potential risk of vaccination during pregnancy.*

### What are the benefits of vaccinating against COVID-19?

#### **If you are pregnant, you are at increased risk for severe illness from COVID-19.**

- Compared to non-pregnant women with COVID-19 who are the same age, pregnant COVID-19 patients are at [higher risk](#) of:
  - Developing respiratory complications
  - Being admitted into the intensive care unit (ICU)
  - Requiring life support measures – such as a ventilator or a heart-lung machine (ECMO)
  - Having a preterm birth, and
  - Dying of COVID-19.
- August 2021 had [the highest number of COVID-19-associated deaths in pregnant people](#) compared to all other months during the pandemic in the U.S.
- [Data](#) from a COVID-19 related surveillance network in the U.S. indicates that 97% of pregnant women hospitalized (either for illness or for labor/delivery) with confirmed COVID-19 were not vaccinated against the virus.

#### **COVID-19 vaccines provide protection from infection, hospitalization, and death from COVID-19.**

- Pfizer, Moderna, and Johnson & Johnson vaccines provide strong protection against COVID-19, especially severe illness and death.
  - The CDC has [stated](#) that COVID-19 vaccines continue to provide protection against currently circulating variants in the U.S. and that virtually all COVID-19 hospitalizations and deaths are among those *who are unvaccinated*.
- [Preliminary findings](#) show that safety and efficacy of COVID-19 vaccine is similar to that observed in non-pregnant individuals. Additionally, recent [research](#) out of Israel has indicated that Pfizer's vaccine is effective at preventing infection with the virus that causes COVID-19 in pregnant women.
- Research has further suggested that during pregnancy, mothers may provide some level of [protection against COVID-19 to neonates](#). Additionally, breastfeeding mothers who have received a COVID-19 vaccine can share antibodies through breast milk which [help provide protection for infants against the disease](#).

### **COVID-19 vaccines cannot give you COVID-19.**

- mRNA (Pfizer, Moderna) and non-replicating viral vector vaccines (Johnson & Johnson) are not live virus vaccines.
- The COVID-19 vaccines do NOT contain ingredients that are known to be harmful to pregnant women or to the fetus.
- Many vaccines are routinely given in pregnancy and are safe (e.g. tetanus, diphtheria, pertussis and flu).
- These vaccines do not alter human DNA. Therefore, mRNA and non-replicating viral vector vaccines cannot cause any genetic changes to an unborn baby.

### **What are the risks of vaccinating against COVID-19?**

#### **COVID-19 vaccines have not yet been tested in pregnant women.**

- The Moderna, Pfizer, and Johnson & Johnson vaccines were tested in 30,000 to 44,000 people in clinical trials, and there were no serious side effects. However, these vaccines were not specifically tested in pregnant women. Some women did become pregnant during the study. No adverse events in vaccinated pregnant women have been reported from clinical trials.
- Over 160,000 pregnant women have been vaccinated against COVID-19 in the U.S. and no safety concerns have been identified via vaccine safety monitoring systems.
  - FDA and CDC are continuing to monitor the safety of COVID-19 vaccines in pregnant women.
- As of February 18, 2021, [Pfizer has begun to enroll](#) pregnant women in a clinical trial to evaluate the safety and efficacy of their COVID-19 vaccine in this group and whether infants receive any protective antibodies from their mother.
- Research has shown that receiving a COVID-19 vaccine in pregnancy is [not associated with an increased risk of miscarriage](#).
- Additionally, developmental and reproductive toxicity (DART) studies, which use animal models, were conducted to ensure safety of vaccines prior to use in pregnant women.  
[Results from DART studies:](#)
  - Pfizer - studies completed in Europe have shown **no safety signals**
  - Moderna - found **no safety concerns**
  - Johnson & Johnson – found **no safety concerns**

#### **People getting the vaccine could experience some side effects.**

- Some people have no side effects. Yet many who have received a COVID-19 vaccine have reported some side effects following vaccination.
- Common side effects reported include injection site pain, fatigue, headache, muscle pain, joint pain, and fever.
  - Pregnant women who experience a fever should take Tylenol (acetaminophen).
- Side effects are more common after the second dose for two-dose series (Pfizer, Moderna).

- Side effects are a sign your immune system is working.
- Serious adverse events are extremely rare following COVID-19 vaccination.

### How to make an informed decision.

1. Make sure you understand as much as you can about COVID-19 and about the vaccines.
2. Have a conversation with a trusted healthcare professional, such as your doctor or midwife, about getting vaccinated.
3. Consider your own risk of getting COVID-19....

<b>You are at <u>increased</u> risk if:</b>	<b>You are at <u>lower</u> risk if:</b>
<ul style="list-style-type: none"><li>✓ You have contact with people outside your household who don't wear masks or remain unvaccinated</li><li>✓ You are 35 years or older</li><li>✓ You are overweight</li><li>✓ You have other medical problems such as diabetes, high blood pressure, or heart disease</li><li>✓ You are a smoker</li><li>✓ High level of community transmission of COVID being reported</li><li>✓ You are a healthcare worker</li></ul>	<ul style="list-style-type: none"><li>✓ You are always able to wear a mask</li><li>✓ You and those you live with can socially distance from others for your whole pregnancy</li><li>✓ Your community does not have high or increasing rates of COVID-19 being reported</li></ul>

CDC [recommendations](#) state that pregnant and recently pregnant women may choose to receive a booster dose of Pfizer's COVID-19 vaccine at least 6 months after completing their Pfizer primary vaccine series based on their individual benefits and risks.

### What do the experts recommend?

The [American College of Obstetricians & Gynecologists \(ACOG\)](#) strongly recommends that all eligible persons greater than 12 years of age, including pregnant and lactating individuals, receive a COVID-19 vaccine.

The [Society for Maternal-Fetal Medicine](#) recommends that pregnant and lactating people be vaccinated against COVID-19.

The [American Society for Reproductive Medicine \(ASRM\)](#) has stated, "COVID-19 vaccination is recommended for women who are contemplating pregnancy or who are pregnant in order to minimize risks to themselves and their pregnancy".