COVID-19 Vaccine & Pregnancy

The CDC recommends staying up to date on COVID-19 vaccinations for all people ages 5 years and older, including people who are pregnant, breastfeeding, trying to get pregnant now, might become pregnant in the future and their partners. 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 vaccine outweigh any known or potential risk of vaccination during pregnancy.

What are the benefits of vaccination during pregnancy?

Immunizations, including COVID-19, are an important part of routine prenatal care. The Centers for Disease Control and Prevention (CDC), the Society for Maternal Fetal Medicine (SMFM) and the American College of Obstetricians and Gynecologists (ACOG) strongly recommend that pregnant individuals be vaccinated against COVID-19, in addition to influenza and pertussis.

Throughout the COVID-19 pandemic, pregnant persons have been shown to be at increased risk for severe illness from COVID-19. As of February 14th, 2022, there have been 2,376 pregnant persons infected with COVID-19 in North Dakota. Eighty-three of those cases have been hospitalized and one individual has passed away. Seventy-eight (94%) of these severe cases were unvaccinated.

If you are pregnant and become infected with COVID-19, you’re at an increased risk of adverse pregnancy outcomes.

Compared to unvaccinated women who never tested positive for COVID-19 during their pregnancy, unvaccinated pregnant women who have been infected with COVID-19 during pregnancy or at time of birth are at a higher risk of:

- Preterm delivery
- Giving birth to infants with lower birthweight
- Stillbirth
- A newborn’s admission into the Intensive Care Unit (ICU)

In a recent study published by the CDC, researchers found a pregnant woman’s primary COVID-19 vaccine series has been shown to be 61% effective against COVID-19 hospitalization among infants aged <6 months. This means that when a pregnant person chooses to be vaccinated, they are not only choosing to protect themselves but also their baby.

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 ICU
- Requiring life support measures – such as a ventilator or a heart-lung machine (ECMO)
• **Dying of COVID-19**  
Data from a COVID-19 related surveillance network in the U.S. indicates that 29.1% of all COVID-19 associated hospitalizations between March 1, 2020 and December 31, 2021 were among pregnant people.

Evidence regarding the safety and effectiveness of COVID-19 vaccination during pregnancy continues to grow.  
COVID-19 vaccines are proving to be effective at reducing the rates of severe COVID-19 in pregnant persons, and COVID-19 vaccines have not shown an increased rate of adverse events affecting both mother and baby, including no association with preterm birth or miscarriages.

- The Pfizer and Moderna FDA approved mRNA COVID-19 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 or your baby 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 vaccination during pregnancy?  
COVID-19 vaccines have not yet been tested in pregnant women. However, real-world data continue to suggest that COVID-19 vaccines remain safe and effective.  
- The Moderna, Pfizer and Johnson & Johnson vaccines were tested in 30-44 thousand 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.

- 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.
- As of February 14, 2022, more than 201,075 pregnant people have reported COVID-19 vaccination in the United States, and the evidence regarding the safety and effectiveness of COVID-19 vaccination during pregnancy continues to grow.
- 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:
  o Pfizer - studies completed in Europe have shown no safety concerns
  o Moderna - found no safety concerns
  o 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.
  o 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.

Should people who are pregnant receive a COVID-19 booster?

Yes. The CDC recommends that all people (ages 5 years and older) who are pregnant, trying to become pregnant, have been recently pregnant, who may become pregnant in the future and their partners to stay up to date on their COVID-19 vaccinations. This includes receiving a primary series and booster dose once eligible. The American College of Obstetricians and Gynecologists (ACOG) has provided the following recommendations regarding pregnant women and boosters: “ACOG recommends that pregnant and recently pregnant people up to 6 weeks postpartum, including pregnant and recently pregnant health care workers, receive a booster dose of COVID-19 vaccine following the completion of their initial COVID-19 vaccine or vaccine series.”

CDC COVID-19 booster dose recommendations currently include:

- For those who received a primary series of Pfizer
All individuals ages 12 years and older should receive a single dose mRNA COVID-19 vaccine booster (Pfizer or Moderna) at least 5 months following the second dose in their primary series.

Moderately to severely immunocompromised individuals should receive a single dose mRNA COVID-19 vaccine booster (Pfizer or Moderna) at least 3 months following the third dose in their primary series.

For those who received a primary series of Moderna

All individuals ages 18 years and older should receive a single dose mRNA COVID-19 vaccine booster (Pfizer or Moderna) at least 5 months following the second dose in their primary series.

Moderately to severely immunocompromised individuals should receive a single dose mRNA COVID-19 vaccine booster (Pfizer or Moderna) at least 3 months following the third dose in their primary series.

For those who received a primary dose of Johnson & Johnson

All individuals ages 18 years and older should receive a single dose mRNA COVID-19 vaccine booster (Pfizer or Moderna) at least 2 months following their primary dose.

Moderately to severely immunocompromised individuals should receive a single dose mRNA COVID-19 vaccine booster (Pfizer or Moderna) at least 2 months following the additional (2nd) dose in their primary series.

Although mRNA vaccines are preferred, J&J/Janssen COVID-19 vaccine may be considered in some situations.

How to make an informed decision regarding your health and the health of your baby

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.

You are at increased risk if:
- You have contact with people outside your household who don’t wear masks or remain unvaccinated
- You are 35 years or older
- You are overweight

You are at lower risk if:
- You are always able to wear a mask
- You and those you live with can socially distance from others for your whole pregnancy
- Your community does not have high or increasing rates of COVID-19 being reported
✓ You have other medical problems such as diabetes, high blood pressure or heart disease
✓ You are a smoker
✓ High level of community transmission of COVID being reported
✓ You are a healthcare worker

What do the experts recommend?

The American College of Obstetricians & Gynecologists (ACOG) strongly recommends that all eligible persons greater than 5 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, “Patients who are pregnant or who are planning to become pregnant should become vaccinated against COVID-19 with any of the available vaccines...Currently available data support the safety of vaccination against COVID-19 prior to pregnancy and during all stages of pregnancy.”

A statement from 23 leading medical and public health organizations in the U.S. has stated: “As the leading organizations representing experts in maternal care and public health professionals that advocate and educate about vaccination, we strongly urge all pregnant individuals -- along with recently pregnant, planning to become pregnant, lactating and other eligible individuals -- to be vaccinated against COVID-19.”

Maternal care experts want the best outcomes for their patients, and that means both a healthy parent and a healthy baby. Data from hundreds of thousands of reporting individuals have shown that the COVID-19 vaccine is both safe and effective when administered during pregnancy. The same data have been equally reassuring when it comes to infants born to vaccinated individuals. Moreover, COVID-19 vaccines have no impact on fertility. Pregnant individuals and those planning to become pregnant should feel confident in choosing vaccination to protect themselves, their infants, their families and their communities.
Where to Get Vaccinated

Information on COVID-19 vaccine providers and clinics near you can be found on the NDDoH COVID Vaccine Locator page. You can also contact the NDDoH Hotline at 1.866.207.2880 for assistance.