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COVID-19 Vaccination if You Are Pregnant or Breastfeeding

The Society for Maternal-Fetal Medicine (SMFM) and other pregnancy experts recommend that pregnant and lactating people be vaccinated against COVID-19. The Centers for Disease Control and Prevention (CDC) recommend vaccination for all people aged 5 years and older, including people who are pregnant, breastfeeding, trying to get pregnant now, or might become pregnant in the future. Vaccination is the best way to reduce the risks of COVID-19 infection and COVID-related complications for both you and your baby.

Three vaccines are available to prevent COVID-19:

- The two-dose Pfizer vaccine for people 12 years and older and a lower-dose vaccine for people 5 to 11 years old
- The two-dose Moderna vaccine for people 18 years and older
- The one-dose Johnson & Johnson vaccine for people 18 years and older (you may also see this vaccine referred to as the “Janssen vaccine”)

For those receiving the Pfizer and Moderna vaccines, the second dose is given 21 days (Pfizer) and 28 days (Moderna) after the first dose.¹ The Johnson & Johnson vaccine is only one dose.²

The CDC recommends a preference for people to get an mRNA vaccine (Pfizer or Moderna) over the Johnson & Johnson vaccine. The reasons for this recommendation are:

- The superior effectiveness of mRNA vaccines against recent COVID-19 variants
- Johnson & Johnson vaccine’s association with a very rare, yet serious, side effect (blood clots)
- The current large supply of mRNA vaccines in the United States

Anyone who isn’t willing or able to get an mRNA vaccine can still get the Johnson & Johnson vaccine.³

[Anyone can get the COVID vaccines](#) free of charge regardless of immigration status or whether they have insurance. You may be asked for your social security number, but it is NOT required to get vaccinated.

Information for Pregnant Individuals

If you are pregnant or planning to become pregnant and are thinking about getting vaccinated, consider talking with your health care professional about the vaccine.

To help with your decision, you should consider the following key points:

What are benefits of getting the COVID-19 vaccines during pregnancy?

- The vaccines can help protect you from getting COVID-19. With the two-dose vaccines, you should get both doses for maximum effectiveness. It's not yet known how long protection lasts.
- Another potential benefit is that getting the vaccine while pregnant may help you pass anti-COVID-19 antibodies to your baby. In numerous studies of vaccinated moms, antibodies were found in the umbilical cord blood of babies and in the mother's breastmilk.⁴⁻¹³
- The CDC, along with other federal partners, are monitoring people who have been vaccinated for serious side effects.¹⁴ So far, more than 139,000 pregnant people have been vaccinated. No unexpected pregnancy or fetal problems have occurred. There have been no reports of any increased risk of pregnancy loss, fetal growth problems, or birth defects.¹⁵
- A safe vaccine is generally considered one in which the benefits of being vaccinated outweigh the risks. The current vaccines are not live vaccines. The vaccines do not cross the placenta because they are quickly broken down by the muscle where they're given. The antibodies that your body makes in response to the vaccine do cross the placenta and protect your baby from COVID-19 after birth. There is no evidence that vaccines affect future fertility. The only people who should NOT get vaccinated are those who have had a severe allergic reaction to vaccines in the past or any vaccine ingredients.
- Side effects may occur in the first 3 days after getting vaccinated.¹ These include mild to moderate fever, headache, and muscle aches. Side effects may be worse after the second dose of the Pfizer and Moderna vaccines.^{16, 17} Fever should be avoided during pregnancy, especially in the first trimester. Those who develop a fever after vaccination can take acetaminophen (Tylenol). This medication is safe to use during pregnancy and does not affect how the vaccine works.

What are the known risks of getting COVID-19 during pregnancy?

About 1 to 3 per 1,000 pregnant women with COVID-19 will develop severe disease.^{18, 19}

Compared with those who aren't pregnant, pregnant people infected by the COVID-19 virus:

- Are 3 times more likely to need ICU care

- Are 2 to 3 times more likely to need advanced life support and a breathing tube
- Have a small increased risk of dying due to COVID-19

They may also be at increased risk of stillbirth and preterm birth.¹⁹⁻²¹

What is my risk of getting COVID-19?

Your risk of getting COVID-19 depends on the likelihood of coming into contact with another infected person. The risk may be higher if you live in a community where there is a lot of COVID-19 infection or work in healthcare or another high-contact setting.

What is my risk for severe complications if I get COVID-19?

Data show that older pregnant women; those with preexisting health conditions, such as obesity, diabetes, and heart disorders; and Black or Latinx people have an especially increased risk of severe disease and death from COVID-19.¹⁹⁻²¹

If you still have questions about the vaccines or need more information, ask your health care provider or go to the Centers for Disease Control and Prevention's [COVID-19 vaccine webpage](#).

Booster Shots Are Recommended for Pregnant People

Although being fully vaccinated provides great protection against hospitalization and serious illness from COVID-19 infection, vaccine effectiveness may decrease over time. This happens with other vaccines as well, like tdap. An extra shot can boost the immune response and give improved protection against COVID-19. **SMFM and other expert organizations recommend a booster shot for all pregnant people.**

A booster shot is recommended for all pregnant people who received the Pfizer or Moderna vaccines 6 months after completing the initial 2-shot vaccination series. For pregnant people aged 18 and older who received the Johnson & Johnson vaccine, a booster is recommended 2 or more months after getting the initial shot.

You can choose which vaccine you get as a booster and “mix and match” your initial vaccine and booster. So whether you received the Pfizer, Moderna, or Johnson & Johnson vaccine initially, you can get a booster with any of these vaccines.

Boosters (and the initial vaccines) may be given at any time during pregnancy and can be given with other vaccines (like the flu shot).

Information for Breastfeeding/Lactating Individuals

The Society for Maternal-Fetal Medicine and other pregnancy experts recommend COVID-19 vaccination for people who are breastfeeding/lactating. You don't have to delay or stop breastfeeding just because you get vaccinated.

Getting Vaccinated

You can get vaccinated at any time during pregnancy. The CDC is committed to monitoring the vaccine's safety for all individuals. Your health professional or vaccine clinic may give you information about enrolling in the [v-safe after vaccination health checker](#) (see the box below).

Even after you're fully vaccinated, it is important to follow the [CDC's guidance](#) for wearing a mask indoors in areas where there are substantial or high rates of COVID-19 infection. You can check the infection rate in your area [here](#).

What Happens When You Enroll in v-Safe?

The [v-safe after vaccination health checker](#) program lets the CDC check in with you after your vaccination. At sign-up, you can indicate that you are pregnant. Once you do that, expect the following:

- Someone may call you from the v-safe program to ask initial questions and get more information.
- You may be asked to enroll in the vaccine pregnancy registry, which is collecting information about any effects of the vaccine during pregnancy. This is a great way to help scientists monitor the vaccine's safety and effectiveness.

References

1. Oliver SE, Gargano JW, Marin M, Wallace M, Curran KG, Chamberland M, et al. The Advisory Committee on Immunization Practices' Interim Recommendation for Use of Pfizer-BioNTech COVID-19 Vaccine — United States, December 2020. *MMWR Morbidity and Mortality Weekly Report* 2020;69.
2. FDA Briefing Document. Janssen Ad26.COV2.S Vaccine for the Prevention of COVID-19. 2021 Accessed Mar 5, 2021; Available from: <https://www.fda.gov/media/146217/download>
3. Centers for Disease Control and Prevention. CDC endorses ACIP's updated COVID-19 vaccine recommendations. 2021.
4. Flannery DD, Gouma S, Dhudasia MB, Mukhopadhyay S, Pfeifer MR, Woodford EC, et al. Assessment of Maternal and Neonatal Cord Blood SARS-CoV-2 Antibodies and Placental Transfer Ratios. *JAMA pediatrics* 2021 2021.
5. Beharier O, Plitman Mayo R, Raz T, Nahum Sacks K, Schreiber L, Suissa-Cohen Y, et al. Efficient maternal to neonatal transfer of antibodies against SARS-CoV-2 and BNT162b2 mRNA COVID-19 vaccine. *J Clin Invest* 2021 Jul 1;131(13).
6. Douxfils J, Gillot C, De Gottal É, Vandervinne S, Bayart JL, Dogné JM, et al. Efficient Maternal to Neonate Transfer of Neutralizing Antibodies after SARS-CoV-2 Vaccination with BNT162b2: A Case-Report and Discussion of the Literature. *Vaccines (Basel)* 2021 Aug 15;9(8).

7. Zdanowski W, Waśniewski T. Evaluation of SARS-CoV-2 Spike Protein Antibody Titers in Cord Blood after COVID-19 Vaccination during Pregnancy in Polish Healthcare Workers: Preliminary Results. *Vaccines (Basel)* 2021 Jun 19;9(6).
8. Charepe N, Gonçalves J, Juliano AM, Lopes DG, Canhão H, Soares H, et al. COVID-19 mRNA vaccine and antibody response in lactating women: a prospective cohort study. *BMC pregnancy and childbirth* 2021 Sep 17;21(1):632.
9. Juncker HG, Mulleners SJ, van Gils MJ, de Groot CJM, Pajkrt D, Korosi A, et al. The Levels of SARS-CoV-2 Specific Antibodies in Human Milk Following Vaccination. *J Hum Lact* 2021 Aug;37(3):477-84.
10. Nir O, Schwartz A, Toussia-Cohen S, Leibovitch L, Strauss T, Asraf K, et al. Maternal-neonatal transfer of SARS-CoV-2 immunoglobulin G antibodies among parturient women treated with BNT162b2 messenger RNA vaccine during pregnancy. *Am J Obstet Gynecol MFM* 2021 Sep 20;4(1):100492.
11. Perl SH, Uzan-Yulzari A, Klainer H, Asiskovich L, Youngster M, Rinott E, et al. SARS-CoV-2-Specific Antibodies in Breast Milk After COVID-19 Vaccination of Breastfeeding Women. *Jama* 2021 May 18;325(19):2013-4.
12. Romero Ramírez DS, Lara Pérez MM, Carretero Pérez M, Suárez Hernández MI, Martín Pulido S, Pera Villacampa L, et al. SARS-CoV-2 Antibodies in Breast Milk After Vaccination. *Pediatrics* 2021 Aug 18.
13. Valcarce V, Stafford LS, Neu J, Cacho N, Parker L, Mueller M, et al. Detection of SARS-CoV-2-Specific IgA in the Human Milk of COVID-19 Vaccinated Lactating Health Care Workers. *Breastfeed Med* 2021 Aug 20.
14. Centers for Disease Control and Prevention. v-safe and Registry Monitoring people who report pregnancy. 2021 Accessed July 1, 2021; Available from: <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/vsafepregnancyregistry.html>
15. Shimabukuro TT, Kim SY, Myers TR, Moro PL, Oduyebo T, Panagiotakopoulos L, et al. Preliminary Findings of mRNA Covid-19 Vaccine Safety in Pregnant Persons. *The New England journal of medicine* 2021 Jun 17;384(24):2273-82.
16. PFIZER-BIONTECH COVID-19 VACCINE [package insert] New York: Pfizer and Mainz, German: Biontech;2020.
17. FDA Briefing Document. Moderna COVID-19 Vaccine. 2020 Accessed 2020, Dec 18; Available from: <https://www.fda.gov/media/144434/download>
18. Ellington S, Strid P, Tong VT, Woodworth K, Galang RR, Zambrano LD, et al. Characteristics of Women of Reproductive Age with Laboratory-Confirmed SARS-CoV-2 Infection by Pregnancy Status - United States, January 22-June 7, 2020. *MMWR Morbidity and mortality weekly report* 2020 Jun 26;69(25):769-75.

19. Zambrano LD, Ellington S, Strid P, Galang RR, Oduyebo T, Tong VT, et al. Update: Characteristics of Symptomatic Women of Reproductive Age with Laboratory-Confirmed SARS-CoV-2 Infection by Pregnancy Status - United States, January 22-October 3, 2020. MMWR Morbidity and mortality weekly report 2020 Nov 6;69(44):1641-7.
20. Panagiotakopoulos L, Myers TR, Gee J, Lipkind HS, Kharbanda EO, Ryan DS, et al. SARS-CoV-2 Infection Among Hospitalized Pregnant Women: Reasons for Admission and Pregnancy Characteristics - Eight U.S. Health Care Centers, March 1-May 30, 2020. MMWR Morbidity and mortality weekly report 2020 Sep 23;69(38):1355-9.
21. Delahoy MJ, Whitaker M, O'Halloran A, Chai SJ, Kirley PD, Alden N, et al. Characteristics and Maternal and Birth Outcomes of Hospitalized Pregnant Women with Laboratory-Confirmed COVID-19 - COVID-NET, 13 States, March 1-August 22, 2020. MMWR Morbidity and mortality weekly report 2020 Sep 25;69(38):1347-54.