



# Dear Colleague

## COVID-19 Updates

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July 27, 2021

### COVID-19 Vaccination: Fertility, Pregnancy and Postpartum

- **Vaccine Safety and Monitoring in Pregnant People**
- **Recommendations for Vaccination**
- **Addressing Concerns About COVID-19 Vaccines and Fertility and Menstruation**
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#### Updated Guidance

- [Letter to Providers: All New Yorkers Age 12 and Older Can Get Vaccinated at Home](#) (July 15)
- [Letter to Providers: Update Regarding Reports of Myocarditis and Pericarditis Following mRNA Vaccination](#) (June 30)
- [Letter to Providers: COVID-19 Vaccine Updates — Updated Recommendations for Use of Johnson & Johnson/Janssen; Guidance for People Vaccinated Outside the U.S.](#) (May 21)
- [Letter to Providers: COVID-19 Vaccine for Adolescents and Coadministration](#) (May 18)
- NYC Health Department [COVID-19](#) webpages
  - [Pregnancy](#)
  - [Vaccine Information for Providers](#)
  - [Vaccine Communication Resources for Providers](#)
  - [Vaccine Finder](#)
  - [COVID-19 Data](#)

## **COVID-19 Vaccination: Fertility, Pregnancy and Postpartum**

This letter summarizes COVID-19 vaccination recommendations and talking points for health care providers serving people who are thinking about becoming pregnant, are pregnant, are postpartum or are lactating. **Your recommendation as a provider is the strongest predictor that a patient will receive a vaccine.** All providers, not just those providing obstetric care, should facilitate conversations around COVID-19 vaccination.

### **Vaccine Safety and Monitoring in Pregnant People**

Three COVID-19 vaccines have been granted emergency use authorization (EUA) by the FDA for use in the United States: the Pfizer-BioNTech and Moderna mRNA vaccines and the Johnson & Johnson/Janssen adenovirus vector vaccine. All three vaccines were shown to be safe and effective across different ages, genders, races and ethnicities, and no single vaccine is recommended over another. However, the Centers for Disease Control and Prevention (CDC) recommends that pregnant, lactating, and postpartum people be counseled about the low risk for thrombosis with thrombocytopenia syndrome (TTS) following receipt of the Johnson & Johnson/Janssen vaccine. Based on available data, [experts believe](#) that being pregnant or recently pregnant does not increase the risk of developing TTS after receiving the Johnson & Johnson/Janssen vaccine. However, patients should be counseled on the risks of TTS and the availability of other COVID-19 vaccines, where this risk has not been seen.

Pregnant people [report the same side effects](#) as nonpregnant people after getting vaccinated with an mRNA vaccine; currently, data is not available on side effects in pregnant women following receipt of the Johnson & Johnson/Janssen vaccine. Let patients know that mild to moderate side effects following vaccination are to be expected (such as fever, chills, aches and soreness, or pain at the injection site). Pregnant people who develop a fever after getting vaccinated should take acetaminophen, as fever from any cause has been associated with adverse pregnancy outcomes. If a pregnant patient's side effects continue or worsen, encourage them to call their obstetrician-gynecologist or primary care provider.

While the initial vaccine clinical trials did not include pregnant or lactating people, some people who participated in the trials later found out they were pregnant at the time of vaccination or became pregnant after getting vaccinated ([Pfizer 2020](#); [Moderna 2020](#); [Janssen 2021](#)). No serious safety concerns [were identified](#) for any of the authorized vaccines among trial participants.

There are several [vaccine safety-related databases](#) (including [v-safe](#), the [v-safe pregnancy registry](#) and the Vaccine Adverse Events Reporting System [[VAERS](#)]) being used to collect data about COVID-19 vaccination during pregnancy. Data for more than 30,000 pregnant patients were collected from these monitoring systems and presented at the CDC's Advisory Committee of Immunization Practices meeting on March 1, 2021. No obvious safety signals were found following mRNA vaccination, and adverse pregnancy and neonatal outcomes were similar to baseline rates among pregnant people before the COVID-19 public health emergency. This demonstrates the safety of the Pfizer and Moderna vaccines among pregnant people ([Shimabukuro 2021](#)). No data were presented on the Johnson &

Johnson/Janssen vaccine. Additional clinical trials are being conducted to evaluate COVID-19 vaccination in pregnant people.

For more information on adverse events associated with vaccination that are not specific to pregnancy, see [Myocarditis and Pericarditis following mRNA Vaccination](#), [TTS following Johnson & Johnson vaccination](#), and [Guillain-Barré syndrome following Johnson & Johnson vaccination](#). Development of these conditions following vaccination is rare, and the CDC has determined that the benefits of the vaccines far outweigh the risks of vaccination.

## Recommendations for Vaccination

### During Pregnancy

All three authorized vaccines can be offered to pregnant people and [administered with other vaccines](#), including vaccines for influenza and diphtheria, pertussis, and tetanus, without regard to timing. Initiate conversations about vaccination with pregnant patients and address factors that might influence their decision to get vaccinated. Engage in shared decision-making when discussing COVID-19 vaccination with pregnant people.

In deciding whether to be vaccinated, there are three main factors to consider:

1. The risk of delaying vaccination of the pregnant person
2. The limited data on safety in pregnancy
3. The potential benefits of maternal vaccination to the fetus or newborn

Delaying vaccination means that a person remains at much greater risk of getting COVID-19. Pregnant people with COVID-19 are at increased risk for preterm birth, severe COVID-19 illness, hospitalization, needing intensive care, and possibly death compared to nonpregnant people with COVID-19, and people who were recently pregnant are also at increased risk of severe COVID-19 outcomes ([Ellington 2020](#); [Khalil 2020](#); [Allotey 2020](#); [Zambrano 2020](#)). Also, COVID-19 infection during pregnancy may increase the risk for preterm birth ([Woodworth 2020](#); [Ko 2021](#)). Intrauterine transmission has rarely been reported; however, the effects of COVID-19 infection on fetuses are not yet well understood ([Vivanti 2020](#)). It is important to advise patients who want to delay vaccination to continue practicing nonpharmaceutical prevention measures, such as good hand hygiene, physical distancing and mask use.

There are no known risks to a developing fetus from the COVID-19 vaccines. The vaccines do not contain SARS-CoV-2, the virus that causes COVID-19, and cannot cause COVID-19 infection. The genetic material from vaccines cannot be incorporated into the genetic makeup of the fetus.

Findings from a recent study suggest immunoglobulin G (IgG) antibodies to SARS-CoV-2 transfer across the placenta. However, it is unknown if these antibodies can protect the baby from SARS CoV-2 infection or how long the antibodies may last ([Flannery 2021](#); [Groß 2020](#)).

## Postpartum and Lactating People

For people who choose not to get vaccinated during pregnancy, vaccination should be offered again as soon as possible during the postpartum period.

Antibodies against the SARS-CoV-2 virus have been found in breast milk following SARS-CoV-2 infection and in response to COVID-19 vaccination ([Walker 2020](#)). However, further research is needed to determine if SARS-CoV-2 antibodies help protect the newborn from COVID-19, and, if so, the concentration needed to achieve protection, and whether vaccine-elicited antibodies are similar to naturally acquired antibodies.

## Addressing Concerns About COVID-19 Vaccines and Fertility and Menstruation

### Fertility

Many people have expressed concerns about the effects of the COVID-19 vaccines on fertility. Currently, there is no evidence that COVID-19 vaccines cause infertility in males or females. Leading professional organizations on pregnancy and fertility, including the [American Society for Reproductive Medicine](#) (ASRM), [American College of Obstetricians and Gynecologists](#) (ACOG) and [Society for Maternal Fetal Medicine](#) (SMFM), recommend that people considering pregnancy get vaccinated against COVID-19. A joint statement assures patients that “there is no evidence that the vaccine can lead to loss of fertility” ([ASRM 2021](#)). Additionally, there is no recommendation for delaying assisted reproductive treatments because of vaccination.

Claims of infertility are based on misinformation spread on the internet and elsewhere and a misunderstanding of the science. The COVID-19 vaccines, similar to many other vaccines, work by teaching the body to create antibodies to fight the virus. Some concerns of infertility are based on the misconception that the antibodies developed after COVID-19 infection or vaccination will attack a specific protein (syncytin-1) in the placenta. However, the proteins on the virus that cause COVID-19 and the protein in the placenta are very different. There is no evidence these antibodies will cause any problems in pregnancy, including development of the placenta. Syncytin-1 is not contained in the SARS-CoV-2 spike protein. It is extremely unlikely that any COVID-19 vaccine aimed at the SARS-CoV-2 spike protein would generate an immune response that is cross-reactive with syncytin-1 and affect fertility and pregnancy ([Kloc 2021](#)).

### Menstrual Disturbances

There have been anecdotal reports of changes in menstrual patterns following COVID-19 vaccination. These changes include heavier menses, earlier or later onset, and increased dysmenorrhea (cramps and pelvic pain). Vaccines have not previously been associated with menstrual changes. Environmental stressors can be responsible for temporary menstrual disturbances. There is no reason for patients to schedule vaccinations around their menstrual cycles, and vaccines can be given to people currently menstruating or taking oral contraceptives ([ACOG 2021](#)).

## **Resources**

### **Providers**

- NYC Health Department
  - [COVID-19: Recommendations for Providers Serving People Who are Pregnant, Breastfeeding or Chestfeeding, or Caring for Newborns](#)
  - [COVID-19: Recommendations for Doulas](#)
  - [Maternal Mortality and Severe Maternal Morbidity in New York City, April 2021](#)
- CDC
  - [COVID-19 Vaccines While Pregnant or Breastfeeding](#)
  - [Interim Guidance on Breastfeeding and Breast Milk Feeds in the Context of COVID-19](#)
  - [Data on COVID-19 during Pregnancy: Birth and Infant Outcomes](#)

### **Patients**

- NYC Health Department
  - [COVID-19 Recommendations for People Who Are Pregnant, Breastfeeding or Caring for Newborns](#) (available in multiple languages on the [COVID-19 Pregnancy webpage](#))
  - [COVID-19: Guide to Infant Feeding](#) (available in multiple languages on the [COVID-19 Pregnancy webpage](#))
  - [Doula Care and Services](#)
- CDC
  - [Toolkit for Pregnant People and New Parents](#)
  - [MotherToBaby](#): Experts are available to answer questions about COVID-19 vaccination during pregnancy. Free and confidential services are available in English or Spanish by phone or chat Monday through Friday, 8 a.m. to 5 p.m. Call 866-626-6847, chat live or email [MotherToBaby](#).

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