



# TOOLKIT

## SECTION 6: CLINICAL CONSIDERATIONS

*Last Updated May 26, 2022*

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# EXPECTED SIDE EFFECTS

It is important to discuss common side effects from COVID-19 vaccines with patients. Reassure them these reactions are normal and will usually resolve themselves within a few days of getting the vaccine. There are some patients who will think these reactions are from COVID-19 – because of getting the vaccine – and not the vaccine itself. Side effects can include:

- Pain, redness, and swelling on arm where vaccine was given
- Tiredness
- Headache
- Muscle pain
- Chills
- Fever
- Nausea

Visit the CDC website for more information on local and systematic reactions to [Pfizer](#), [Moderna](#), and [J&J](#) products.



# MYOCARDITIS AND PERICARDITIS

According to the CDC: since April 2021, increased cases of myocarditis and pericarditis have been reported in the United States after mRNA COVID-19 vaccination (Pfizer-BioNTech and Moderna), particularly in adolescents and young adults.

There has not been a similar reporting pattern observed after receipt of the Janssen COVID-19 vaccine (Johnson & Johnson).

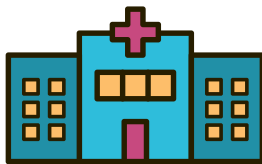
In most cases, patients who presented for medical care have responded well to medications and rest and had prompt improvement of symptoms. Reported cases have occurred predominantly in male adolescents and young adults 16 years of age and older. Onset was typically within several days after mRNA COVID-19 vaccination, and cases have occurred more often after the second dose than the first dose. The CDC and its partners are investigating these reports of myocarditis and pericarditis following mRNA COVID-19 vaccination.

The CDC continues to recommend COVID-19 vaccination for everyone 5 years of age and older given the risk of COVID-19 illness and related, possibly severe complications, such as long-term health problems, hospitalization, and even death.



# PREPARING FOR ANAPHYLAXIS

Symptoms of anaphylaxis often occur within 15-30 minutes of vaccination, though it can sometimes take several hours for symptoms to appear. Early signs of anaphylaxis can resemble a mild allergic reaction, and it is often difficult to predict whether initial, mild symptoms will progress to become an anaphylactic reaction. In addition, symptoms of anaphylaxis might be more difficult to recognize in people with communication difficulties, such as long-term care facility residents with cognitive impairment, those with neurologic disease, or those taking medications that can cause sedation. Not all symptoms listed here are necessarily present during anaphylaxis, and not all patients have skin reactions.



## For those sites vaccinating children:

Ensure staff are trained to recognize and respond to anaphylaxis in children aged 5-11 years.

SIGNS AND SYMPTOMS IN ADULTS AND CHILDREN	
<b>Respiratory</b>	<ul style="list-style-type: none"> <li>• Sensation of throat closing or tightness</li> <li>• High-pitched sound while breathing</li> <li>• Hoarseness</li> <li>• Shortness of breath or wheezing</li> <li>• Coughing</li> <li>• Trouble swallowing/drooling</li> <li>• Nasal congestion or sneezing</li> </ul>
<b>Cardiovascular</b>	<ul style="list-style-type: none"> <li>• Dizziness</li> <li>• Fainting</li> <li>• Abnormally fast heart rate</li> <li>• Abnormally low blood pressure</li> <li>• Pulse difficult to find or “weak”</li> <li>• Cyanosis (bluish discoloration)</li> <li>• Pallor</li> <li>• Flushing</li> </ul>
<b>Gastrointestinal</b>	<ul style="list-style-type: none"> <li>• Nausea</li> <li>• Vomiting</li> <li>• Diarrhea</li> <li>• Abdominal pain</li> <li>• Cramps</li> </ul>
<b>Skin/mucosal</b>	<ul style="list-style-type: none"> <li>• Generalized hives</li> <li>• Widespread redness</li> <li>• Itching</li> <li>• Conjunctivitis</li> <li>• Swelling of eyes, lips, tongue, mouth, face, or extremities</li> </ul>
<b>Neurologic</b>	<ul style="list-style-type: none"> <li>• Agitation</li> <li>• Convulsions</li> <li>• Acute change in mental status</li> <li>• Feeling of impending doom</li> </ul>
<b>Other</b>	<ul style="list-style-type: none"> <li>• Sudden increase in secretions from eyes, nose, or mouth</li> <li>• Urinary incontinence</li> </ul>

# PREPARING FOR ANAPHYLAXIS (CONTINUED)

## Should be available at all locations:

- Epinephrine (e.g., prefilled syringe, autoinjector)
- H1 antihistamine (e.g., diphenhydramine, cetirizine)
- Blood pressure monitors
- Timing device to assess pulse

## If feasible, include at locations:

- Pulse oximeter
- Oxygen
- Bronchodilator (e.g. albuterol)
- H2 antihistamine (e.g., famotidine, cimetidine)
- Intravenous fluids
- Intubation kit
- Adult-sized cardiopulmonary resuscitation (CPR) mask  
(Adult-sized pocket mask with one-way valve)



Source: [CDC: Interim Considerations: Preparing for the Potential Management of Anaphylaxis after COVID-19 Vaccination](#)

# ADVERSE EVENTS & REPORTING

No serious adverse events (SAEs) were judged to be related to the vaccine and no deaths occurred in the clinical trials.

- SAEs were uncommon in both vaccine and placebo groups (0.07% and 0.1%)

Sources: [CDC Center for Preparedness and Response](#); [CDC: Pfizer/BioNTech BNT162b2 \(COVID-19 Vaccine, mRNA\) Vaccine –in Individuals 5 to <12 Years of Age](#)

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## Reporting in VAERS

Vaccine Adverse Event Reporting System (VAERS) is the frontline system for vaccine safety monitoring. VAERS depends on healthcare professionals to report any health problems of clinical significance that may occur after vaccination.

Healthcare providers who administer COVID-19 vaccines are **required by law** to report the following to VAERS:

1

Vaccine administration errors, whether or not associated with an adverse event (AE)

- If the incorrect mRNA COVID-19 vaccine product was inadvertently administered for a second dose in a 2-dose series, VAERS reporting is required
- If a different product from the primary series is inadvertently administered for the additional or booster (third dose), VAERS reporting is required

VAERS reporting **is not required** for the following situations:

- If a mixed series is given intentionally (e.g., due to hypersensitivity to a vaccine ingredient)
- Mixing and matching of booster doses (as of October 21, 2021, mixing and matching of booster doses is allowed)

## ADVERSE EVENTS (CONTINUED)

2

Serious AEs regardless of whether the reporter thinks the vaccine caused the AE

- Death
- A life-threatening AE
- Inpatient hospitalization or prolongation of existing hospitalization
- A congenital anomaly/birth defect
- An important medical event that, based on appropriate medical judgment, may require medical or surgical intervention to prevent one of the outcomes listed above

3

Cases of Multisystem Inflammatory Syndrome

4

Cases of COVID-19 that result in hospitalization or death

Healthcare providers should report any additional clinically significant AEs to VAERS following vaccination, **even if they are not sure whether the vaccine caused the event.**



### Ways to Submit an Online Report to VAERS

#### Option 1:

**Report Online to VAERS** – Submit a VAERS report online. The report must be completed online and submitted in one sitting and cannot be saved and returned to at a later time. Information will be erased if inactive for 20 minutes; you will receive a warning after 15 minutes.

#### Option 2:

**Report using a Writable PDF Form** – Download the [Writable PDF Form](#) to a computer. Complete the VAERS report offline if you do not have time to complete it all at once. Return to this page to upload the completed Writable PDF form by clicking [here](#).

Source: [CDC: Reporting Adverse Events Following Vaccination](#)



# VACCINE ADMINISTRATION ERRORS

A vaccine administration error is any preventable event that may cause or lead to inappropriate use of vaccine or patient harm. When an error occurs with a COVID-19 vaccine, follow the revaccination guidance in the table on pages [6-10](#) and [6-11](#), using an age-appropriate COVID-19 vaccine and formulation. Then continue with the recommended schedule of subsequent dose(s) unless otherwise noted ([see footnotes](#)).

For ALL vaccine administration errors:

- Inform the recipient of the vaccine administration error
- Consult with the I-CARE team to determine how the dose should be entered to account for administered dose and for inventory
- Providers are required to report all COVID-19 vaccine administration errors into VAERS – even those not associated with an adverse event
- Determine how the error occurred and implement strategies for prevention



# VACCINE ADMINISTRATION ERRORS (CONTINUED)

## Interim Revaccination Guidance

TYPE	ADMINISTRATION ERROR/DEVIATION	DO NOT REPEAT DOSE	REPEAT DOSE IMMEDIATELY	REPEAT DOSE AFTER INVALID DOSE BY THE MINIMUM INTERVAL*	CONTACT MANUFACTURER
Site/route	Incorrect site (i.e., site other than deltoid or anterolateral thigh)	✓			
	Incorrect route (i.e., route other than intramuscular)	✓			
Age	Administered to an unauthorized age group†	✓			
Formulation or dosage	Pfizer-BioNTech 12 years of age or older formulation (purple or grey cap) administered to a child age 5 through 11 years‡§*	✓			
	Pfizer-BioNTech 5–11 formulation (orange cap) administered to a person age 12 through 17 years‡*	✓			
	Pfizer-BioNTech 5–11 formulation (orange cap) administered to a person 18 years or older		✓		
	Higher-than authorized dose (volume) of the correct formulation administered§	✓			
	Lower-than authorized or unknown dose (volume) of the correct formulation administered		✓		
Storage and handling	Dose administered after improper storage and handling (i.e., temperature excursion)**				✓
	Dose administered past the expiration or beyond-use date**				✓

special notations on 6-12

# VACCINE ADMINISTRATION ERRORS (CONTINUED)

## Interim Revaccination Guidance

TYPE	ADMINISTRATION ERROR/DEVIATION	DO NOT REPEAT DOSE	REPEAT DOSE IMMEDIATELY	REPEAT DOSE AFTER INVALID DOSE BY THE MINIMUM INTERVAL*	CONTACT MANUFACTURER
Intervals	mRNA primary series or additional primary dose administered <b>prior to</b> the recommended interval*			✓	
	mRNA primary series or additional primary dose administered <b>after</b> the recommended interval**	✓			
	Janssen inadvertently administered fewer than 24 days after an mRNA dose	✓			
	Booster dose administered prior to the recommended interval	✓			
	Dose administered within 30 or 90 days of COVID-19 passive antibody therapy (30 days for post-exposure prophylaxis; 90 days for COVID-19 treatment)††	✓			
Mixed Series	Incorrect mRNA COVID-19 product inadvertently administered for the 2nd dose in the primary series	✓			
Diluent (Pfizer-BioNTech only)	Only diluent is administered		✓		
	Pfizer-BioNTech is mixed with too much diluent		✓		
	Pfizer-BioNTech is mixed with too little or no diluent§	✓			
	Any incorrect diluent is used (anything other than 0.9% sodium chloride [normal saline, preservative-free])**				✓

special notations on 6-12

# VACCINE ADMINISTRATION ERRORS (CONTINUED)

## Interim Revaccination Guidance Special Notations

\* Vaccine administered up to 4 days before the minimum interval may be counted and do not need to be repeated

† If any COVID-19 vaccine is administered before age 5 years, do not give another dose at this time. If a vaccine other than Pfizer-BioNTech is given to a person under age 18 years:

- If age 5–17 years and Moderna was given in error, consider the age-appropriate Pfizer-BioNTech formulation as the second dose (based on the recipient's age on the day of vaccination) at least 28 days after the Moderna dose.
- If age 5–17 years and Janssen was given, consider a single dose of the age-appropriate Pfizer-BioNTech formulation (based on the recipient's age on the day of vaccination) at least 2 months after Janssen.

‡ In general, do not repeat dose. However, a repeat dose of the age-appropriate formulation may be administered based on clinical judgement at an interval of 21 days after the dose given in error if:

- 0.1 mL of the Pfizer-BioNTech purple cap formulation is administered to a child age 5 through 11 years
- A lower-than-authorized dose from the Pfizer-BioNTech orange cap formulation is administered to an adolescent age 12 through 17 years

§ If the administration error resulted in a higher-than-authorized vaccine dose, in general the second dose may still be administered at the recommended interval. However, if local or systemic side effects following vaccination are clinically concerning (outside of the expected side effect profile), lead to serious adverse reactions, or are ongoing at the time of the second dose, the decision to administer the second dose may be assessed on a case-by-case basis.

¶ Individuals who will turn from 11 to 12 years of age between their first and second dose in the primary regimen may receive either Pfizer-BioNTech COVID-19 Vaccine formulation in the authorized dosage. This is not considered an error and VAERS reporting is not indicated.

\*\* Contact the manufacturer for information on the stability of the vaccine. If the manufacturer does not have information to support the stability of the vaccine, repeat the dose immediately (no minimum interval).

†† This is not considered an error and does not require VAERS reporting

Source: [CDC: COVID-19 Vaccine Administration Errors and Deviations](#)

# PEDIATRIC VACCINATION

## Side Effects

Children may experience fewer side effects than adolescents or young adults. Children with evidence of prior infection may have fewer side effects than those without evidence of prior infection. Routine antipyretic or analgesic medications can be taken if appropriate. In general, aspirin is not recommended for use in children and adolescents  $\leq 18$  years due to risk of Reye's Syndrome. The most common systemic reactions include fatigue, headache, chills, and muscle pain. The most common local reaction in the clinical trials was mild pain at the injection site.

## MIS-C

The COVID-19 vaccination benefits outweigh a theoretical risk of an MIS-like illness for people who meet all the following criteria:

- 1 Clinical recovery has been achieved, including return to normal cardiac function;
- 2 It has been  $\geq 90$  days since their diagnosis of MIS-C;
- 3 They are in an area of high or substantial community transmission of COVID, or otherwise have an increased risk for COVID exposure and transmission;
- 4 Onset of MIS-C occurred before any COVID-19 vaccination



**\*Note:** A study found that 2 doses of Pfizer-BioNTech vaccine were highly effective in preventing MIS-C in persons ages 12-18. The estimated effectiveness was 91% in fully vaccinated children. All critically ill MIS-C patients were unvaccinated.

- Younger children were not included because they were not eligible for the vaccine during the study period.

Sources: [CDC: Science Brief](#); [CDC: Morbidity and Mortality Weekly Report, January 14, 2022](#)

# IMMUNOCOMPROMISED POPULATIONS

People who are immunocompromised are especially vulnerable to COVID-19. Everyone, including immunocompromised people, should receive a COVID-19 vaccine primary series if they are 5 years and older as soon as possible. Some moderately or severely immunocompromised people should get an additional primary shot. A third shot\* is considered a part of the primary dose series in immunocompromised individuals. Currently, the recommendation for an additional dose is listed below and is summarized in the chart as indicated in **section five - Vaccine Administration:**

- Moderna: ages 18+, third dose 28 days after second dose
- Pfizer: ages 5+, third dose 28 days after second dose
- J&J\*: 18+, second dose 28 days after first does, note: a **Pfizer-BioNTech or Moderna COVID-19 vaccine should be used**

Everyone 5 years and older, including immunocompromised people, should also get a booster shot as indicated in **section five - Vaccine Administration.**

According to the CDC, people with any of the characteristics listed below should be considered moderately or severely immunocompromised, including:

- Receiving active cancer treatment for tumors or cancers of the blood
- Received an organ transplant and are taking medicine to suppress the immune system
- Received a stem cell transplant within the last 2 years or are taking medicine to suppress the immune system
- Moderate or severe primary immunodeficiency (such as DiGeorge syndrome, or Wiskott-Aldrich syndrome)
- Advanced or untreated HIV infection
- Active treatment with high-dose corticosteroids or other drugs that may suppress immune response
- People should talk to their healthcare provider about their medical condition, and whether getting an additional primary shot is appropriate for them.

Source: [CDC: COVID-19 Vaccines for Moderately or Severely Immunocompromised People](#)

# PEOPLE VACCINATED OUTSIDE OF THE U.S.

For people that have been vaccinated outside of the United States, there are guidelines based on:

- The vaccine(s) received for the primary series
- Whether the primary series was completed
- Whether a booster dose was received

The charts below are directly from the CDC’s guidance on vaccinations given outside of the U.S. and can be viewed online [here](#).

## Received a COVID-19 vaccine that is FDA-approved or FDA-authorized

VACCINATION HISTORY	RECOMMENDED ACTIONS	SPECIAL SITUATIONS
Received all recommended primary dose(s)	<ul style="list-style-type: none"> <li>• Do not repeat primary series</li> <li>• Administer booster dose when eligible</li> </ul>	<p>People who are <b>moderately or severely immunocompromised</b> who:</p> <ul style="list-style-type: none"> <li>• Received 2 mRNA COVID-19 vaccine doses should receive a third mRNA primary dose followed by a booster dose, for a total of four vaccine doses</li> <li>• Received a Janssen COVID-19 Vaccine primary dose should receive one additional mRNA dose and one booster dose, for a total of three vaccine doses.</li> </ul>
Received a partial 2-dose mRNA COVID-19 vaccine primary series	<ul style="list-style-type: none"> <li>• Do not restart primary series</li> <li>• Complete primary series as close to the recommended time as possible, preferably with the same mRNA vaccine</li> <li>• Administer booster dose when eligible</li> </ul>	<ul style="list-style-type: none"> <li>• People vaccinated in countries where only a single mRNA dose is recommended in certain populations (e.g., people with a history of SARS-CoV-2 infection, adolescents) should complete the 2-dose primary mRNA series, and get a booster dose when eligible.</li> <li>• People who are <b>moderately or severely immunocompromised</b> who received 2 mRNA COVID-19 vaccine doses should receive a <b>third</b> mRNA primary dose followed by a booster dose for a total of four vaccine doses.</li> </ul>
Received a booster dose after completion of primary series	<ul style="list-style-type: none"> <li>• Do not repeat booster dose</li> </ul>	

Source: [CDC: Use of COVID-19 Vaccines in the United States](#)

# PEOPLE VACCINATED OUTSIDE OF THE U.S. (CONTINUED)

## Received a COVID-19 vaccine listed for emergency use by the WHO but not approved or authorized by the FDA\*†

VACCINATION HISTORY	RECOMMENDED ACTIONS	SPECIAL SITUATIONS
Received all recommended primary doses for that vaccine	<ul style="list-style-type: none"> <li>Do not repeat primary series</li> <li>Administer mRNA booster dose at least 5 months after last primary series dose</li> </ul>	<p>People ages 12 years and older who are <b>moderately or severely immunocompromised</b> should also receive:</p> <ul style="list-style-type: none"> <li>A single dose of an mRNA COVID-19 vaccine at least 28 days after receiving the last dose of the non-FDA-approved or -authorized primary series.</li> <li>An mRNA booster dose at least 3 months after last primary series dose, for a total of four vaccine doses.</li> </ul>
Received partial primary series for that vaccine	<ul style="list-style-type: none"> <li>Administer a single dose of an mRNA COVID-19 vaccine at least 28 days after receipt of their first dose to complete primary series</li> <li>Administer mRNA booster dose at least 5 months after last primary series dose</li> </ul>	<p>People ages 12 years and older who are <b>moderately or severely immunocompromised</b> should also receive:</p> <ul style="list-style-type: none"> <li>A single dose of an mRNA COVID-19 vaccine at least 28 days after the last dose of the primary series.</li> <li>An mRNA booster dose, at least 3 months after last primary series dose, for a total of four vaccine doses.</li> </ul>
Received a booster dose after completion of primary series	<ul style="list-style-type: none"> <li>Do not repeat booster dose</li> </ul>	

\*The [EUI](#) provides a legal framework for heterologous use of mRNA COVID-19 vaccines (i.e., Pfizer-BioNTech and Moderna) in people who received a non-FDA authorized or approved COVID-19 vaccine outside of US.

†COVID-19 vaccines that are listed for [emergency use by WHO](#) that are not FDA-authorized or FDA-approved have not been evaluated for efficacy or safety by CDC or ACIP.

Source: [CDC: Use of COVID-19 Vaccines in the United States](#)



## PEOPLE VACCINATED OUTSIDE OF THE U.S. (CONTINUED)

Received a heterologous primary series composed of doses of a COVID-19 vaccine listed for emergency use by the WHO, at least one of which is not FDA-approved or authorized\*\*†

VACCINATION HISTORY	RECOMMENDED ACTIONS	SPECIAL SITUATIONS
Received two doses of vaccine	<ul style="list-style-type: none"> <li>Do not repeat primary series</li> <li>Get mRNA booster dose at least 5 months after last primary series dose</li> </ul>	<p>People ages 12 years and older who are <b>moderately or severely immunocompromised</b> should receive:</p> <ul style="list-style-type: none"> <li>A single dose of an mRNA COVID-19 vaccine at least 28 days after receiving the last dose of the primary series.</li> <li>An mRNA vaccine booster dose, at least 3 months after last primary series dose, for a total of 4 vaccine doses.</li> </ul>
Received a booster dose after completion of primary series	<ul style="list-style-type: none"> <li>Do not repeat the booster dose</li> </ul>	

Received all or some of the recommended doses of COVID-19 vaccines that are **NOT FDA-authorized, FDA-approved, or among those listed for emergency use by the WHO**

VACCINATION HISTORY	RECOMMENDED ACTIONS	SPECIAL SITUATIONS
Received any number and combination of vaccine doses	<ul style="list-style-type: none"> <li>Doses received do not count toward vaccination in the U.S.</li> <li>Start primary series at least 28 days after the last dose of vaccine</li> <li>Get mRNA booster dose at least 5 months after completion of primary series</li> </ul>	<ul style="list-style-type: none"> <li>People ages 12 years and older who are <b>moderately or severely immunocompromised</b> should restart the series, following <b>guidance</b> for this group around number and timing of primary series dose(s) and booster vaccination.</li> </ul>

\*The [EUI](#) provides a legal framework for heterologous use of mRNA COVID-19 vaccines (i.e., Pfizer-BioNTech and Moderna) in people who received a non-FDA authorized or approved COVID-19 vaccine outside of US.

†COVID-19 vaccines that are listed for [emergency use by WHO](#) that are not FDA-authorized or FDA-approved have not been evaluated for efficacy or safety by CDC or ACIP.

Source: [CDC: Use of COVID-19 Vaccines in the United States](#)



The COVID-19 vaccines that are listed for emergency use by the WHO as of March 2, 2022 are available [here](#).

# PEOPLE VACCINATED AS PART OF A CLINICAL TRIAL

Are considered fully vaccinated if:

- They participated within or outside the United States and received all the recommended primary series doses of a [WHO-EUL COVID-19 vaccines](#) (i.e., not placebo) that is not FDA-approved or FDA-authorized
- They received a vaccine that is not listed for emergency use by the WHO but for which a U.S. data and safety monitoring board or equivalent has independently confirmed efficacy are considered fully vaccinated
  - **Moderna COVID-19 vaccine in children ages 6–17 years**
  - **Medicago COVID-19 vaccine in people 18 years of age**

Moderately or severely immunocompromised clinical trial participants:

- Should receive an additional dose of Pfizer-BioNTech or Moderna unless they have received, or plan to receive, an additional or booster dose through a clinical trial.

All eligible clinical trial participants **should** receive a single booster dose of Pfizer-BioNTech or Moderna, unless they have received, or plan to receive, a booster dose through a clinical trial.

Consult with their healthcare provider about next steps if participants have questions or to determine additional doses.

Source: [CDC: Emergency Use Instructions \(EUI\) Fact Sheet for Recipients and Caregivers: Pfizer-BioNTech COVID-19 Vaccine for Primary, Additional, and/or Booster Doses](#)



# PREGNANT POPULATIONS

People who are pregnant or were recently pregnant are more likely to get severely ill with COVID-19 compared with people who are not pregnant. COVID-19 vaccination is recommended for 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 vaccination during pregnancy is growing.

According to the CDC, pregnancies affected by COVID-19 are at increased risk for preterm birth and [stillbirths](#), and might be at increased risk for other complications.

This data suggests that the benefits of receiving a COVID-19 vaccine outweigh any known or potential risks of vaccination during pregnancy. There is no evidence that any vaccines, including COVID-19 vaccines, cause fertility problems in women or men.

According to the CDC: side effects can occur after COVID-19 vaccination in pregnant people, similar to those among non-pregnant people. Acetaminophen can be offered as an option for pregnant people experiencing fever (fever has been associated with adverse pregnancy outcomes) or other post-vaccination symptoms.

Source: [CDC: COVID-19 Vaccines While Pregnant or Breastfeeding](#)



# PREGNANT POPULATIONS (CONTINUED)

## Should pregnant, recently pregnant, or lactating people get vaccinated?

Yes! Pregnancy can put someone at higher risk of severe complications due to COVID-19. This includes hospitalization, mechanical ventilation, and even death. Vaccination helps prevent severe illness from COVID-19. Additionally, pregnancies affected by COVID-19 are at increased risk for preterm birth and stillbirths, and other severe complications. If someone is vaccinated and breastfeeding, the antibodies made by their body can be passed through breast milk and will help protect their newborn from the virus.

## What are the recommendations?

The American College of Obstetricians and Gynecologists (ACOG) strongly recommends all pregnant and 6-week post-partum people get vaccinated and boosted. The mRNA vaccines (Pfizer and Moderna) are preferred over the Johnson & Johnson vaccine.

## When should the vaccines be given during pregnancy?

If someone is pregnant, they should be vaccinated and boosted as soon as possible. COVID-19 vaccines can be given during any trimester, although new evidence suggests that the vaccines given in the third trimester are 80% effective at preventing COVID-19 related hospitalization in infants younger than 6 months. Additionally, COVID-19 vaccines can be administered at the same time as other vaccines. Boosters are recommended for everyone aged 12 and up.

## What are the side effects of vaccination for pregnant populations?

Pregnant or recently pregnant people experience the same side effects as non-pregnant people. This includes injection site pain, fatigue, and fever. Acetaminophen can be taken for fever. There is no evidence that suggests these vaccines cause miscarriage.

# PREGNANT POPULATIONS (CONTINUED)

## What does the data say?

- A [study](#) published in January 2022, found that serious adverse outcomes from COVID-19 infection, including urgent care admissions and perinatal death, were more likely in unvaccinated compared to vaccinated pregnant people.
- A 2022 [MMWR study](#) found that maternal vaccination during pregnancy helped prevent COVID-19-related hospitalization of infants aged <6 months by 61%.
- A 2021 [MMWR study](#) found that pregnancies affected by COVID-19 are at increased risk for preterm birth and stillbirths and might be at increased risk for other complications.



For more information, visit the [CDC website](#), OR [ACOG guidelines](#).



Protect mothers, protect infants.  
**START VACCINATING TODAY!**

# PEOPLE WITH DISABILITIES

According to the CDC, most people with disabilities are not more likely to become infected with or have severe illness from COVID-19. However, some people with disabilities might be more likely to get infected or have severe illness because of underlying medical conditions, congregate living settings, or systemic health and social inequities. **Ensure the following conditions are met when vaccinating people with disabilities:**

- Clear and effective communication, including availability of interpreter services, that is accessible and meets the requirements of the Americans with Disabilities Act, and other accessibility laws, and ensuring that support persons, family members, and/or guardians are present or available virtually to support individuals with informed decision making

- Vaccination education and outreach while recognizing the right to self-determination
- Providing reasonable accommodations to address potential access barriers to COVID-19 vaccination, such as lack of accessible equipment, inability to read public information or signage, and inability to access vaccination locations
- Conduct individualized assessments and avoid discriminatory judgements about “quality of life” relating to a person’s underlying disability

Sources: [Illinois.gov Guidance Affirming Non-Discrimination in Medical Treatment](#); [CDC: People with Disabilities](#)

**Check out the [CDC’s website](#) on supporting, caring for, and vaccinating people with disabilities during COVID-19**



**Adults with disabilities are three times more likely than adults without disabilities to have heart disease, diabetes, cancer, or a stroke.**