



COVID-19

COVID-19 Vaccines for Moderately or Severely Immunocompromised People

Updated Feb. 17, 2022

If you are moderately or severely immunocompromised (have a weakened immune system), you are at increased risk of severe COVID-19 illness and death. CDC recommends that you complete your primary series of COVID-19 vaccines if you are 5 years and older, and if you are 12 years or older, get a booster. Because the immune response following COVID-19 vaccination may differ in people who are moderately or severely immunocompromised, specific guidance has been developed.

Children Ages 5-11 Years Who Are Moderately or Severely Immunocompromised

Children ages 5 through 11 years who are moderately or severely immunocompromised **should receive a primary series of 3 doses** of Pfizer-BioNTech COVID-19 vaccine. A booster is not recommended for this age group at this time.

Primary Series COVID-19 Vaccine	Age Group	Number of Doses to Complete Primary Series and Timing	Booster and Timing
Pfizer-BioNTech	5–11 years	3 doses 2 <sup>nd</sup> dose given 3 weeks (21 days) after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose given at least 4 weeks (28 days) after 2 <sup>nd</sup> dose	Not recommended

Pre-teens, Teens and Adults Who Are Moderately or Severely Immunocompromised

People ages 12 years and older who are moderately or severely immunocompromised **should receive a total of 4 doses** of COVID-19 vaccine. The 4 doses are made up of a primary series of 3 doses of an mRNA COVID-19 vaccine, plus 1 booster of an mRNA COVID-19 vaccine (4th dose).

Primary Series COVID-19 Vaccine	Age Group	Number of Doses to Complete Primary Series and Timing	Booster and Timing
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Primary Series COVID-19 Vaccine	Age Group	Number of Doses to Complete Primary Series and Timing	Booster and Timing
Pfizer-BioNTech	12+ years	3 doses 2 <sup>nd</sup> dose given 3 weeks (21 days) after 1 <sup>st</sup> dose  3 <sup>rd</sup> dose given at least 4 weeks (28 days) after 2 <sup>nd</sup> dose	1 booster Given at least 3 months after 3 <sup>rd</sup> dose
Moderna	18+ years	3 doses 2 <sup>nd</sup> dose given 4 weeks (28 days) after 1 <sup>st</sup> dose  3 <sup>rd</sup> dose given at least 4 weeks (28 days) after 2 <sup>nd</sup> dose	1 booster Given at least 3 months after 3 <sup>rd</sup> dose

\*Although mRNA vaccines are preferred for people 18 years and older, J&J/Janssen COVID-19 vaccine [may be considered in some situations](#).

## People Who Are Moderately or Severely Immunocompromised and Have Received a J&J/Janssen Vaccine

People ages 18 years and older who are moderately or severely immunocompromised and received the 1 dose Johnson & Johnson’s Janssen COVID-19 vaccine should get a second dose of either Pfizer-BioNTech or Moderna COVID-19 vaccine (mRNA COVID-19 vaccines). They should also receive a booster—for **a total of 3 doses**.

Primary Series COVID-19 Vaccine	Age Group	Number of Doses to Complete Primary Series and Timing	Booster and Timing
J&J/Janssen	18+ years	2 doses 1 <sup>st</sup> dose J&J/Janssen 2 <sup>nd</sup> dose Pfizer-BioNTech or Moderna (mRNA COVID-19 vaccines) given at least 4 weeks (28 days) after 1 <sup>st</sup> dose	1 booster Either Pfizer-BioNTech or Moderna (mRNA COVID-19 vaccines) in most situations given at least 2 months after 2 <sup>nd</sup> dose

\*Although mRNA vaccines are preferred for people 18 years and older, J&J/Janssen COVID-19 vaccine [may be considered in some situations](#).

**Find a COVID-19 vaccine or booster:** Search [vaccines.gov](#), text your ZIP code to 438829, or call 1-800-232-0233 to find locations near you.

## Who Is Moderately or Severely Immunocompromised?

Many conditions and treatments can cause a person to be immunocompromised, also known as having a weakened immune system. People are considered to be moderately or severely immunocompromised if they have:

- Been 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, Wiskott-Aldrich syndrome)
- Advanced or untreated HIV infection
- Active treatment with high-dose corticosteroids or other drugs that may suppress their immune response

People should talk to their healthcare provider about COVID-19 vaccination given their medical condition.

## People Who Were Vaccinated Outside of the United States

People who are moderately or severely immunocompromised and completed a primary COVID-19 vaccine series with a U.S. Food and Drug Administration (FDA) approved or FDA-authorized COVID-19 vaccine (Pfizer-BioNTech, Moderna, or J&J/Janssen) outside of the United States should follow the guidance above.

People who are moderately or severely immunocompromised and were vaccinated outside of the United States and:

- Received all the recommended doses of a [World Health Organization Emergency Use Listing \(WHO-EUL\) COVID-19 vaccine](#), not approved or authorized by FDA, or
- Completed a mix and match series composed of a combination of one FDA-approved or FDA-authorized and one WHO-EUL COVID-19 vaccine, or of two WHO-EUL COVID-19 vaccines

Should receive a third primary dose of Pfizer-BioNTech or Moderna COVID-19 vaccine at least 4 weeks (28 days) after completing the primary vaccine series. Learn more about the [COVID-19 Interim Clinical Considerations](#).

## Frequently Asked Questions

Can you mix and match the vaccines for your mRNA primary vaccination series?



No, vaccines used for the primary vaccination series should be same. However, if the mRNA vaccine product given for the first two doses is not available or is unknown, either Pfizer-BioNTech or Moderna COVID-19 vaccine (mRNA COVID-19 vaccines) may be administered.

What are the benefits of a third primary dose for people who are moderately or severely immunocompromised and received two doses of mRNA COVID-19 vaccine?



A third primary dose may prevent serious and possibly life-threatening COVID-19 in people who may not have responded to their two-dose mRNA COVID-19 vaccine primary series. People who are moderately or severely immunocompromised who have low or no protection after two doses of mRNA vaccines may have an improved immune response after a third primary dose of the same vaccine.

What are the risks of vaccinating people who are moderately or severely immunocompromised with a third primary dose?



The safety, effectiveness, and benefit of the third primary dose in people who are moderately or severely immunocompromised continues to be evaluated. So far, reactions reported after the third primary dose of an mRNA COVID-19 vaccine are similar to those of the two-dose primary series. Fatigue and pain at the injection site were the most commonly reported side effects—and overall, most symptoms were mild to moderate.

As with the two-dose primary series, [serious side effects are rare](#), but may occur.

What is the difference between a third primary dose and a booster?



A third primary dose is a third dose of an mRNA vaccine, which completes the primary series for people who are moderately or severely immunocompromised. Getting a booster enhances or restores protection against COVID-19, which may have decreased over time.

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## For Healthcare and Public Health

- [Talking with Patients Who Are Immunocompromised](#)
- [Use of COVID-19 Vaccines Currently Authorized in the United States](#)

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