



COVID-19

COVID-19 Vaccines for Moderately or Severely Immunocompromised People

Updated Mar. 21, 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. Additionally, your immune response to COVID-19 vaccination may not be as strong as in people who are not immunocompromised. As with vaccines for other diseases, you are protected best when you [stay up to date with your COVID-19 vaccines](#). To stay up to date, get all COVID-19 vaccine doses, including a booster, that are recommended for your age group, as described below.

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 on the schedule shown below to stay up to date. 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: <ul style="list-style-type: none"> • 2nd dose given 3 weeks (21 days) after 1st dose • 3rd dose given at least 4 weeks (28 days) after 2nd dose 	Not recommended at this time

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 mRNA COVID-19 vaccine to stay up to date. The 4 doses include a primary series of 3 doses of an Pfizer-BioNTech or Moderna COVID-19 vaccine, plus 1 booster of an Pfizer-BioNTech or Moderna COVID-19 vaccine (4th dose), given on the schedule shown below.

Primary Series COVID-19 Vaccine	Age Group	Number of Doses to Complete Primary Series and Timing	Booster and Timing
---------------------------------	-----------	---	--------------------

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: <ul style="list-style-type: none">• 2nd dose given 3 weeks (21 days) after 1st dose• 3rd dose given at least 4 weeks (28 days) after 2nd dose	1 booster Given at least 3 months after 3 rd dose*
Moderna	18+ years	3 doses: <ul style="list-style-type: none">• 2nd dose given 4 weeks (28 days) after 1st dose• 3rd dose given at least 4 weeks (28 days) after 2nd dose	1 booster Given at least 3 months after 3 rd dose*

*mRNA vaccines are preferred for people ages 18 years and older, but you may consider J&J/Janssen COVID-19 vaccine [in some situations](#).

People Who Are Moderately or Severely Immunocompromised and Have Received a Johnson & Johnson/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), plus an mRNA COVID-19 vaccine booster to stay up to date—for **a total of 3 doses**—based on the schedule shown below.

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: <ul style="list-style-type: none">• 1st dose J&J/Janssen• 2nd dose either Pfizer-BioNTech or Moderna COVID-19 vaccines given at least 4 weeks (28 days) after 1st dose	1 booster: Either Pfizer-BioNTech or Moderna COVID-19 vaccines in most situations given at least 2 months after 2 nd dose*

*mRNA vaccine booster dose is preferred for people ages 18 years and older, but you may consider J&J/Janssen COVID-19 vaccine [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 (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

Talk to your healthcare provider about COVID-19 vaccination and your medical condition.

People Who Were Vaccinated Outside of the United States

People who are moderately or severely immunocompromised and who received COVID-19 vaccines not available in the United States should either complete or restart the recommended COVID-19 vaccine series, including a booster dose, in the United States. For more information, talk to your healthcare provider, or see the [COVID-19 Interim Clinical Considerations](#).

Frequently Asked Questions

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



No, vaccines used for the primary vaccination series should be the same product or brand. 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?



For people who are immunocompromised, the third primary dose is the final dose of the primary series of an mRNA COVID-19 vaccine while the booster is the shot that comes at least three months later. Getting a booster enhances or restores protection against COVID-19, which may have decreased over time. People ages 12 years and older who are moderately or severely immunocompromised should receive 4 total doses of COVID-19 vaccine—a primary series of 3 doses, plus, when eligible, 1 booster dose.



When are people who have weakened immune systems considered up to date with their COVID-19 vaccines?

If you are moderately or severely immunocompromised, being up to date means you have completed your primary series—plus, when eligible, a booster dose.



For Healthcare and Public Health

- [Use of COVID-19 Vaccines Currently Authorized or Approved in the United States](#)

Last Updated Mar. 21, 2022