COVID-19 Vaccines for Moderately or Severely Immunocompromised People

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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.

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
Pfizer-BioNTech 5–11 years 3 doses Not recommended 2nd dose given 3 weeks (21 days) after 1st dose 3rd dose given at least 4 weeks (28 days) after 2nd 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 COVID-19 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
Pfizer-BioNTech 12+ years 3 doses 1 booster 2nd dose given 3 weeks (21 days) after 1st dose 3rd dose given at least 4 weeks (28 days) after 2nd dose
Moderna 18+ years 3 doses 1 booster 2nd dose given 4 weeks (28 days) after 1st dose 3rd dose given at least 4 weeks (28 days) after 2nd dose

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People Who Were Vaccinated Outside of the United States

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 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.