



Australian Government

# COVID-19 VACCINATION

## COVID-19 vaccination decision guide for people with immunocompromise

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Version 7.2

**What has changed:** Updated links added to access information in the [Australian Immunisation Handbook](#).

This guide is for immunisation providers and for people with a weakened immune system (known as immunocompromise), including people taking immune-weakening medicines, who are considering COVID-19 vaccination.

To find out more about the available COVID-19 vaccines and who should be vaccinated, refer to the [Australian Immunisation Handbook](#).

### What is immunocompromise?

Being 'immunocompromised' means having a weakened immune system due to a medical condition or particular immunosuppressive medications. Many conditions can cause immunocompromise, including:

- cancer, especially blood cancer (leukaemia or lymphoma)
- treatments for cancer (e.g. chemotherapy, targeted therapies transplants or CAR-T cell therapy)
- immune deficiency syndromes
- HIV infection (if the CD4 count is low)

**For examples of medications that are considered immunosuppressive, refer to [ATAGI recommendations on the use of a third primary dose of COVID-19 vaccine in individuals who are severely immunocompromised](#).**

### Should I have a COVID-19 vaccine if I am immunocompromised?

Yes, vaccination against COVID-19 is important for people with immunocompromise.

Vaccination is likely to protect you from having severe or prolonged illness and needing to go to hospital due to COVID-19.

To find out more about who should be vaccinated, refer to the [Australian Immunisation Handbook](#).

### Is the COVID-19 vaccine safe for me if I am immunocompromised?

Yes, COVID-19 vaccines are safe and recommended for people who are immunocompromised. COVID-19 vaccines available for use in Australia are not live vaccines. There is no reason to

expect any higher risk of safety issues with COVID-19 vaccines in people with immunocompromise.

### **Will a COVID-19 vaccine be effective for me if I am immunocompromised?**

People with significant immunocompromise can have reduced responses to vaccines, meaning they may not be as well protected as people whose immune system is normal. For this reason, most adults with significant immunocompromise are recommended to have a 3-dose primary course of COVID-19 vaccine. These doses are not considered 'booster' doses. People with severe immunocompromise are recommended further doses after their primary course.

For children aged 6 months to 4 years, the currently available Pfizer vaccine is a 3-dose primary schedule, and these individuals do not require extra doses in their primary course, even if they are immunocompromised.

Some studies have shown that people with immunocompromise do make antibodies after COVID-19 vaccination, but there may be less of a response than that seen in people without significant immunocompromise. These studies included people who have undergone organ transplants, certain cancers, and people who take significant doses of immune suppressing medication (refer to [ATAGI recommendations on the use of a third primary dose of COVID-19 vaccine in individuals who are severely immunocompromised](#)).

People with HIV infection with normal CD4 cell counts appear to have a similar immune response to COVID-19 vaccines as people without HIV infection.

We do not currently know how well the levels of antibodies reflect the effectiveness of vaccines. In larger population studies conducted earlier in the pandemic, vaccinated immunocompromised people were about 70-90% less likely to become ill from COVID-19 than unvaccinated people. This compares to approximately 84-94% in people without immunocompromise. These studies looked at vaccine effectiveness in people with all types of immunocompromise and may not reflect vaccine effectiveness in specific immunocompromising conditions.

More information regarding COVID-19 vaccinations for specific populations of immunocompromised individuals can be found in the [ATAGI recommendations on the use of a third primary dose of COVID-19 vaccine in individuals who are severely immunocompromised](#).

### **Do I need further doses after my primary course if I am immunocompromised?**

People with severe immunocompromise are recommended to have further doses after their primary series. Depending on your age and health circumstances, you may be at greater risk of severe COVID-19 and could benefit from further doses of COVID-19 vaccine. You can review the [Australian Immunisation Handbook](#) or speak to your healthcare provider to find out what is best for your health needs according to latest recommendations.

### **Chemotherapy**

If you are having chemotherapy, discuss the best timing of vaccination with your treating doctor. Some types of chemotherapy can cause a fall in your body's immune (white) cells or platelets. There are no specific safety concerns with COVID-19 vaccines approved for use in Australia (Pfizer, Moderna, or Novavax) in people with low immune (white) cells but vaccines can cause fever, which may lead to extra investigations to look for other causes of the fever. People with low platelet counts may have increased bleeding at the injection site following vaccination.

## Immune-weakening treatment

If you are taking an immunosuppressive medication, discuss the best timing of vaccination with your treating doctor.

### Advice for providers: Timing of vaccination

- For most people with immunocompromise, COVID-19 vaccines can be given at any time.
- Active disease is not a contraindication to vaccination, though in those with severe illness, a short delay until the active disease is under control may be advisable to avoid incorrect attribution of vaccine-related adverse events to underlying acute illness and vice versa.
- As with any other vaccine, vaccination should be deferred in people who are febrile (fever of 38.5°C or higher).
- For people taking immunosuppressive therapies, the timing of vaccination should be discussed with their treating specialist, considering disease severity, characteristics of the immunosuppressive therapy, and patient preferences. In general, maintenance immunosuppression should not be withheld or deferred for vaccination, unless advised by the treating specialist.
- Deferring immunosuppressive therapy or deferring vaccination for a short period may be recommended in some circumstances, e.g., to allow for a better immune response to the vaccine or to reduce the risk of misattribution of adverse events from an immunosuppressive therapy to the vaccine. Discuss the optimal timing of vaccination in people taking immunosuppressive therapy (particularly B-cell depleting therapies such as rituximab) with their treating specialist, to maximise the immune response to vaccination.
- For people taking immune checkpoint inhibitors, discuss the timing of vaccination with their treating specialist, to minimise the theoretical risk of immune-related adverse events being triggered by vaccination. Allow at least 3 days of spacing if possible and avoid vaccination on the same day as a regular immunomodulating infusion (e.g., immunoglobulin replacement therapy, immunosuppressant infusion), to avoid incorrect attribution of vaccine-related adverse events to the infusion treatment or vice versa.
- Avoid vaccination during anticipated periods of neutropenia, or during periods of confirmed severe neutropenia (ANC of less than  $0.5 \times 10^9/L$ ). This is to avoid fever, which may result in additional investigations (and treatment) being instigated for other differential diagnoses (such as sepsis).
- Consider temporary deferral of vaccination or use additional precautions during periods of severe thrombocytopenia (e.g. platelet count of less than  $50 \times 10^9/L$ ). After vaccination, the injection site should not be rubbed, and firm pressure should be applied for 5-10 minutes. If a haematoma develops, immobilise the area and apply an ice pack.
- For further information on the optimal timing of vaccination in people with immunocompromise, including recipients of solid organ or haematopoietic stem cell transplants, refer to: <https://immunisationhandbook.health.gov.au>

## More information

For more information refer to:

- Australian Immunisation Handbook:  
<https://immunisationhandbook.health.gov.au/contents/vaccine-preventable-diseases/covid-19>
- ATAGI recommendations on the use of a 3rd primary dose of COVID-19 vaccine in individuals who are severely immunocompromised:  
[www.health.gov.au/resources/publications/atagi-recommendations-on-the-use-of-a-third-primary-dose-of-covid-19-vaccine-in-individuals-who-are-severely-immunocompromised](http://www.health.gov.au/resources/publications/atagi-recommendations-on-the-use-of-a-third-primary-dose-of-covid-19-vaccine-in-individuals-who-are-severely-immunocompromised)