





COVID-19 Primary Course Vaccines in Australia

The table below provides key differences between each COVID-19 primary course vaccine approved for use in Australia as per the Australian Technical Advisory Group on Immunisation (ATAGI) Guidelines. Please refer to the [ATAGI clinical guidance for COVID-19 vaccine providers](#) for the most up-to-date advice.


	Moderna (SPIKEVAX) 6 months to 5 years Blue cap / Purple label 	Pfizer (COMIRNATY) 6 months to 4 years Maroon cap 	Pfizer (COMIRNATY) 5 to 11 years Orange cap 	Pfizer (COMIRNATY) 12 years and older Purple cap 	Novavax (NUVAXOVID) Blue cap 	AstraZeneca (VAXZEVRIA) Red cap 
Vaccine type	mRNA (nucleic acid)	mRNA (nucleic acid)	mRNA (nucleic acid)	mRNA (nucleic acid)	Protein-based	Viral vector
Approved age	6 months to 5 years ¹	6 months to 4 years ¹	5 to 11 years	12 years and older	12 years and older	18 years and older
Dose volume	0.25mL	0.2mL	0.2mL	0.3mL	0.5mL	0.5mL
Doses per vial	10	10	10	6	10	10
Dilution required	No	Yes (2.2mL)	Yes (1.3mL)	Yes (1.8mL)	No	No
ATAGI recommended interval ²	8 weeks	8 weeks	8 weeks	8 weeks	8 weeks	12 weeks
Minimum interval ³	4 weeks	3 weeks (second dose) and 8 weeks (third dose)	3 weeks	3 weeks	3 weeks	4 weeks
Third primary dose ⁴	Yes	Yes ⁵	Yes	Yes	Yes ⁶	Yes, but not preferred ⁷
Ultra-Low Temperature (ULT) freezer storage time ⁸	DO NOT STORE	18 months (shelf life) at -90°C to -60°C	18 months (shelf life) at -90°C to -60°C	18 months (shelf life) at -90°C to -60°C	DO NOT STORE	DO NOT STORE
Freezer storage time (unopened vials) ⁸	9 months (shelf life) at -50°C to -15°C	DO NOT STORE	DO NOT STORE	2 weeks at -25°C to -15°C within the 18-month shelf life	DO NOT STORE	DO NOT STORE
Refrigeration storage time (unopened vials) ⁸	30 days (2°C to 8°C) within the 9-month shelf life	70 days (2°C to 8°C) within the 18-month shelf life	70 days (2°C to 8°C) within the 18-month shelf life	31 days (2°C to 8°C) within the 18-month shelf life	9 months (2°C to 8°C)	9 months (2°C to 8°C)
Room temperature storage time (unopened vials) ⁸	24 hours (up to 25°C)	24 hours, pre- and post-dilution (up to 30°C)	24 hours, pre- and post-dilution (up to 30°C)	2 hours pre-dilution and 6 hours post-dilution (up to 30°C)	12 hours (up to 25°C)	12 hours (up to 30°C) for a single period
ATAGI recommendations for storing opened vials	6 hours (up to 25°C)	6 hours (up to 30°C)	6 hours (up to 30°C)	6 hours (up to 30°C)	6 hours (up to 25°C)	6 hours (up to 30°C) or 48 hours (2°C to 8°C)
ATAGI recommendations for pre-drawn doses	1 hour (up to 25°C) 6 hours (2°C to 8°C)	1 hour (up to 30°C) 6 hours (2°C to 8°C)	1 hour (up to 30°C) 6 hours (2°C to 8°C)	1 hour (up to 30°C) 6 hours (2°C to 8°C)	Storing pre-drawn doses in syringes is not preferred ⁹	1 hour (up to 30°C) 6 hours (2°C to 8°C)
Transport limitations	12 hours thawed	80 hours thawed	80 hours thawed	48 hours thawed	Nil	Nil

Notes:

- ATAGI recommends COVID-19 vaccination for children aged 6 months to <5 years with severe immunocompromise, disability, and those who have complex and/or multiple health conditions which increase the risk of severe COVID-19.
- All people are recommended to defer COVID-19 vaccination for 3 months after a confirmed SARS-CoV-2 infection. The next scheduled dose should then be given as soon as possible.
- Dosing intervals can be shortened in specific circumstances for higher risk groups (such as older people or those with medical risk factors for severe illness), or before international travel. The benefits of earlier protection should be weighed against the benefits of the longer dose interval, such as a slightly lower risk of adverse events and a longer duration of protection. Shortening of the recommended dose interval below the manufacturer's dosing schedule may result in a suboptimal immune response.
- A third primary dose of COVID-19 vaccine is recommended for all people aged 6 months or older with severe immunocompromise who are receiving a 2-dose primary course. The third dose should be given from 2 months after the second vaccine dose.
- Severely immunocompromised children who receive the 3-dose primary schedule of the Pfizer (COMIRNATY) 6 months to 4 years (maroon cap) vaccine do not require a fourth primary dose.
- There is limited data on the immunogenicity or efficacy of Novavax (NUVAXOVID) in people with immunocompromise
- AstraZeneca (VAXZEVRIA) can be used for the third dose for individuals who have received AstraZeneca (VAXZEVRIA) for their first two doses if there are no contraindications or precautions for use, or if a significant adverse reaction has occurred after a previous mRNA vaccine dose which contraindicates further doses of mRNA vaccine (e.g. anaphylaxis, myocarditis).
- If vaccines are stored or handled outside the conditions listed, complete the [Cold Chain Breach \(CCB\) reporting form](#) and email it to COVID19VaccineOperationsCentre@health.gov.au. Quarantine the vaccines within appropriate cold chain requirements, and label them with 'Do not use, do not discard' until you have been provided with advice by the Vaccine Operations Centre (VOC).
- If pre-drawn doses are used, ATAGI recommends that (where possible) pre-drawn doses in syringes should be used within 1 hour if kept at room temperature, and within 6 hours if kept at 2°C to 8°C. This is to minimise the risk of infection.

COVID-19 Booster Vaccines in Australia

The table below provides key differences between each COVID-19 vaccine boosters approved for use in Australia as per the Australian Technical Advisory Group on Immunisation (ATAGI) Guidelines. Please refer to the [ATAGI clinical guidance for COVID-19 vaccine providers](#) for the most up-to-date advice.

	Pfizer (COMIRNATY) 5 to 11 years Orange cap 	Pfizer (COMIRNATY) 12 years and older¹ Purple cap 	Pfizer Bivalent (COMIRNATY) 18 years and older¹ Grey cap 	Moderna Bivalent (SPIKEVAX) 18 years and older¹ Blue cap / Green label 	Novavax (NUVAXOVID)² Blue cap 	AstraZeneca (VAXZEVRIA)² Red cap 
Vaccine type	mRNA (nucleic acid)	mRNA (nucleic acid)	mRNA (nucleic acid)	mRNA (nucleic acid)	Protein-based	Viral vector
Approved age	5 to 11 years	12 years and older	18 years and older	18 years and older	18 years and older ³	18 years and older
Dose volume	0.2mL	0.3mL	0.3mL	0.5mL	0.5mL	0.5mL
Doses per vial	10	6	6	5	10	10
Dilution required	Yes (1.3mL)	Yes (1.8mL)	No	No	No	No
First booster dose interval ⁶	3 months from primary course <i>for eligible populations only⁴</i>	3 months from primary course <i>for eligible populations only⁴</i>	3 months from primary course	3 months from primary course	3 months from primary course	3 months from primary course
Second booster dose interval ⁶	NA	3 months from first booster <i>for eligible populations only⁵</i>	3 months from first booster <i>for eligible populations only⁵</i>	3 months from first booster <i>for eligible populations only⁵</i>	3 months from first booster <i>for eligible populations only⁵</i>	3 months from first booster <i>for eligible populations only⁵</i>
Ultra-Low Temperature (ULT) freezer storage time ⁷	18 months (shelf life) at -90°C to -60°C	18 months (shelf life) at -90°C to -60°C	18 months (shelf life) at -90°C to -60°C	DO NOT STORE	DO NOT STORE	DO NOT STORE
Freezer storage time (unopened vials) ⁷	DO NOT STORE	2 weeks at -25°C to -15°C within the 18-month shelf life	DO NOT STORE	9 months (shelf life) at -50°C to -15°C	DO NOT STORE	DO NOT STORE
Refrigeration storage time (unopened vials) ⁷	70 days (2°C to 8°C) within the 18-month shelf life	31 days (2°C to 8°C) within the 18-month shelf life	70 days (2°C to 8°C) within the 18-month shelf life	30 days (2°C to 8°C) within the 9-month shelf life	9 months (2°C to 8°C)	9 months (2°C to 8°C)
Room temperature storage time (unopened vials) ⁷	24 hours, pre- and post-dilution (8°C to 30°C)	2 hours pre-dilution and 6 hours post-dilution (8°C to 30°C)	24 hours (8°C to 30°C)	24 hours (8°C to 25°C)	12 hours (up to 25°C)	12 hours (up to 30°C) for a single period
ATAGI recommendations for storing opened vials	6 hours (up to 30°C)	6 hours (up to 30°C)	6 hours (up to 30°C)	6 hours (up to 25°C)	6 hours (up to 25°C)	6 hours (up to 30°C) or 48 hours (2°C to 8°C)
ATAGI recommendations for pre-drawn doses	1 hour (up to 30°C) 6 hours (2°C to 8°C)	1 hour (up to 30°C) 6 hours (2°C to 8°C)	1 hour (up to 30°C) 6 hours (2°C to 8°C)	1 hour (up to 25°C) 6 hours (2°C to 8°C)	Storing pre-drawn doses in syringes is not preferred ⁸	1 hour (up to 30°C) 6 hours (2°C to 8°C)
Transport limitations	80 hours thawed	48 hours thawed	80 hours thawed	12 hours thawed	Nil	Nil

Notes:

- For people aged 18 years and older, Pfizer (COMIRNATY) 12 years+ (purple cap), Pfizer (COMIRNATY Bivalent) (grey cap) or Moderna (SPIKEVAX Bivalent) 18 years+ (blue/green) vaccines are the preferred vaccines for a booster dose.
- Although not preferred, AstraZeneca (VAXZEVRIA) or Novavax (NUVAXOVID) vaccines can be used as a booster dose in people aged 18 years and older who have a contraindication to mRNA vaccines (including those who have had a serious adverse event following mRNA vaccines, such as a history of anaphylaxis or myocarditis attributed to an mRNA vaccine) and people who do not prefer an mRNA vaccine.
- Although not TGA-registered as a booster in this age group, Novavax (NUVAXOVID) can be used as a booster in people aged 12 years or older if no other COVID-19 vaccine brand is suitable for that person.
- A first booster dose is recommended for all people aged 16 years and older. Children and adolescents aged 5 to 15 years in the following groups may receive a single COVID-19 vaccine booster: those who are severely immunocompromised, those who have a disability with significant or complex health needs, and those who have complex and/or multiple health conditions that increase the risk of severe COVID-19.
- A second booster dose is recommended for people in the following groups: people 50 years or older, residents aged 16 years and older of an aged care or disability care facility, people aged 16 years and older who have complex, chronic, or severe medical conditions that increase their risk of severe illness from COVID-19, and people aged 16 years and older with disability with significant or complex health needs, or multiple comorbidities that increase the risk of poor outcome from COVID-19. People aged 30 to 49 years can receive a second booster dose, but the benefit for people in this age group is less certain. ATAGI encourages people in this age group to have a discussion with their regular medical provider to review their individual health needs and the benefits and risks.
- All people are recommended to defer COVID-19 vaccination for 3 months after a confirmed SARS-CoV-2 infection. The next scheduled dose should then be given as soon as possible.
- If vaccines are stored or handled outside the conditions listed, complete the [Cold Chain Breach \(CCB\) reporting form](#) and email it to COVID19VaccineOperationsCentre@health.gov.au. Quarantine the vaccines within appropriate cold chain requirements, and label them with 'Do not use, do not discard' until you have been provided with advice by the Vaccine Operations Centre (VOC).
- If pre-drawn doses are used, ATAGI recommends that (where possible) pre-drawn doses in syringes should be used within 1 hour if kept at room temperature, and within 6 hours if kept at 2°C to 8°C. This is to minimise the risk of infection.