

COVID-19 Vaccines for High School Kids

How does COVID-19 affect high school students?



Teenagers are at risk of getting COVID-19, but the good news is *their symptoms are generally mild*. Many will experience a cough, fever, and a runny nose, and only require rest at home, recovering quickly.¹

A very small percentage of young people experience a severe cough, prolonged fever, breathing difficulties and abdominal pain, and are advised to see their doctor.



Children with underlying health conditions are at higher risk of experiencing severe COVID-19 symptoms. Conditions include asthma, obesity, prematurity, and compromised immune systems.²⁻⁵

How do COVID-19 vaccines work?

Children and teenagers receive mRNA COVID-19 vaccines, which work by delivering a message to cells in the body.



- For mRNA COVID-19 vaccines, the message delivered to cells is the instructions on how to make just one part of the COVID-19 virus – the “spike protein”.
- Cells then start making this spike protein. Because the message in the mRNA vaccine tells the body to make only the spike protein, and not the entire COVID-19 virus, it can’t make a person sick from COVID-19.
- The immune system recognises the generated spike proteins on the cells as being foreign to the body and starts training itself to fight off the virus.
- If a vaccinated person is exposed to COVID-19, the immune system immediately recognises the COVID-19 spike protein and generates a strong and rapid immune response to try and limit the infection.

Why do children need a COVID-19 vaccine if they’re not getting very sick?

While severe disease and hospitalisation is uncommon in children and adolescents, it can occur in some cases and vaccinating children helps to protect against this.⁶ Vaccination also benefits the entire family, as well as the community around your child, as it may help to slow the virus spreading to vulnerable people such as elderly grandparents and younger kids who aren’t yet able to be vaccinated. It is important that we let children keep on doing what children do. We have seen the disruption that COVID-19 can have on young lives from a schooling perspective and also on the social and emotional aspects of their lives.^{7,8}



What brand of COVID-19 vaccine should I give my teenager?

In Australia, teenagers can receive either **Pfizer** or **Moderna COVID-19 vaccines**.



While they are different vaccines, they **both use similar mRNA technology** and have been shown to be safe and effective.

It is recommended that young people aged over 12 years receive two COVID-19 vaccine doses. Those receiving the Pfizer vaccine need at least three weeks between doses, while those receiving the Moderna vaccine need at least four weeks between doses.

How effective are these vaccines?

Research has shown that the Pfizer and Moderna vaccines work similarly in teenagers. **The Pfizer vaccine is reported to be over 90% effective** in preventing serious complications *if the individual receives their second dose two weeks prior to having COVID-19 symptoms.*^{6,7}



Two doses of the Moderna vaccine is also reported to be **over 90% effective** at preventing COVID-19 in teenagers *if exposed to COVID-19 at least two weeks after their second dose.*⁸

Will high school students need a booster dose?



All adolescents aged 16-17 years are recommended to receive a **booster dose** with the Pfizer vaccine. They can receive this 3 months after their second dose. It is not yet recommended that children younger than 16 years receive a booster.⁹

What side-effects are likely straight after vaccination?



Most teenagers and adults only experience **mild side effects** after receiving their COVID-19 vaccine such as pain and swelling in the arm, feeling tired, a mild fever, headache and sore muscles and joints.¹⁰



There have been rare reports of more serious side effects such as heart inflammation (myocarditis and pericarditis) in children and adults.^{11,12}

This condition is more likely to occur from a COVID-19 infection rather than from the vaccine.¹³ However, if your child complains of a sore chest, shortness of breath or a fast heartbeat within 5 days of their vaccine, please seek medical attention.



Some parents have raised concerns about COVID-19 vaccines and fertility. Studies show that there's no difference in fertility levels in women or men before and after COVID-19 vaccination.¹⁴⁻¹⁷

Where can my teenager get vaccinated?



In WA, teenagers can be vaccinated at:

- GP clinics,
- state-run clinics,
- some pharmacies
- Aboriginal Medical Services and
- participating high schools

Visit [Roll Up WA](#) for more information and to make a booking.



For more information on
COVID-19 in kids visit
tacklingcovid19.org.au

References

1. Molteni E, Sudre CH, Canas LS, et al. Illness duration and symptom profile in symptomatic UK school-aged children tested for SARS-CoV-2. *The Lancet Child & Adolescent Health*. 2021;5(10):708-718
2. Williams P, Koirala A, Saravanos G, et al. COVID-19 in children in NSW, Australia, during the 2021 Delta outbreak: severity and disease spectrum. *medRxiv*. 2022
3. Hobbs CV, Woodworth K, Young CC, et al. Frequency, characteristics and complications of COVID-19 in hospitalized Infants. *The Pediatric Infectious Disease Journal*. 2021.
4. Mukkada S, Bhakta N, Chantada GL, et al. Global characteristics and outcomes of SARS-CoV-2 infection in children and adolescents with cancer (GRCCC): a cohort study. *The Lancet Oncology*. 2021;22(10):1416-1426.
5. Haeusler GM, Ammann RA, Carlesse F, et al. SARS-CoV-2 in children with cancer or after haematopoietic stem cell transplant: An analysis of 131 patients. *European Journal of Cancer*. 2021;159:78-86
6. Olson SM, Newhams MM, Halasa NB, et al. Effectiveness of Pfizer-BioNTech mRNA Vaccination Against COVID-19 Hospitalization Among Persons Aged 12-18 Years-United States, June-September 2021. *MMWR Morbidity and mortality weekly report*. 2021;70(42):1483.
7. WA Department of Education, WA Department of Health, Telethon Kids Institute. DETECT schools study: understanding the impact of COVID-19 in Western Australian schools 2021 [cited 2022 Jan]. Available from: <https://www.telethonkids.org.au/globalassets/media/documents/projects/detect-schools-study-final-report-and-appendices.pdf>
8. Racine N, McArthur BA, Cooke JE, et al. Global Prevalence of Depressive and Anxiety Symptoms in Children and Adolescents During COVID-19: A Meta-analysis. *JAMA Pediatrics*. 2021;175(11):1142-1150.
9. Olson SM, Newhams MM, Halasa NB, et al. Effectiveness of BNT162b2 Vaccine against Critical Covid-19 in Adolescents. *New England Journal of Medicine*. 2022.
10. Ali K, Berman G, Zhou H, et al. Evaluation of mRNA-1273 SARS-CoV-2 vaccine in adolescents. *New England Journal of Medicine*. 2021;385(24):2241-2251.
11. Australian Technical Advisory Group on Immunisation (ATAGI). ATAGI recommendations for use of Pfizer COVID-19 vaccine as a booster dose in adolescents aged 16-17 years: Australian Government; 2022 [cited Feb 2022]. Available from: <https://www.health.gov.au/news/atagi-recommendations-for-use-of-pfizer-covid-19-vaccine-as-a-booster-dose-in-adolescents-aged-16-17-years>
12. AusVaxSafety. COVID-19 vaccines 2021 [cited 2022 Feb]. Available from: <https://ausvaxsafety.org.au/safety-data/covid-19-vaccines>
13. Therapeutic Goods Administration. COVID-19 vaccine weekly safety report - 06-01-2022: Australian Government; 2022 [cited 2022 Jan]. Available from: <https://www.tga.gov.au/periodic/covid-19-vaccine-weekly-safety-report-06-01-2022>
14. Australian Technical Advisory Group on Immunisation (ATAGI), Cardiac Society of Australia and New Zealand (CSANZ), Royal Australian College of General Practitioners (RACGP), et al. Guidance on myocarditis and pericarditis after mRNA COVID-19 vaccines: Australian Government; 2021 [cited 2022 Jan]. Available from: https://www.health.gov.au/sites/default/files/documents/2021/11/covid-19-vaccination-guidance-on-myocarditis-and-pericarditis-after-mrna-covid-19-vaccines_1.pdf
15. Singer ME, Taub IB, Kaelber DC. Risk of Myocarditis from COVID-19 Infection in People Under Age 20: A Population-Based Analysis. *medRxiv*. 2021
16. Bentov Y, Beharier O, Moav-Zafir A, et al. Ovarian follicular function is not altered by SARS-CoV-2 infection or BNT162b2 mRNA COVID-19 vaccination. *Human Reproduction*. 2021;36(9):2506-2513
17. Orvieto R, Noach-Hirsh M, Segev-Zahav A, et al. Does mRNA SARS-CoV-2 vaccine influence patients' performance during IVF-ET cycle? *Reproductive Biology and Endocrinology*. 2021;19(1):69
18. Morris RS. SARS-CoV-2 spike protein seropositivity from vaccination or infection does not cause sterility. *F&S Reports*. 2021
19. Gonzalez DC, Nassau DE, Khodamoradi K, et al. Sperm Parameters Before and After COVID-19 mRNA Vaccination. *JAMA*. 2021;326(3):273-274
20. Attwell K, Carlson SJ, Tchilingirian J, Harper T, McKenzie L, Roberts L, Rizzi M, Westphal D, Effler P, Hughes C, Swift V, Blyth CC. Coronavax: Preparing Community and Government for COVID-19 Vaccination: a Research Protocol for a mixed-methods social research project. *BMJ Open*. 2021;11(6):e049356