

COVID-19 vaccines and children aged 5-11 years of age: what GPs need to know?

DH & RACGP Victoria update

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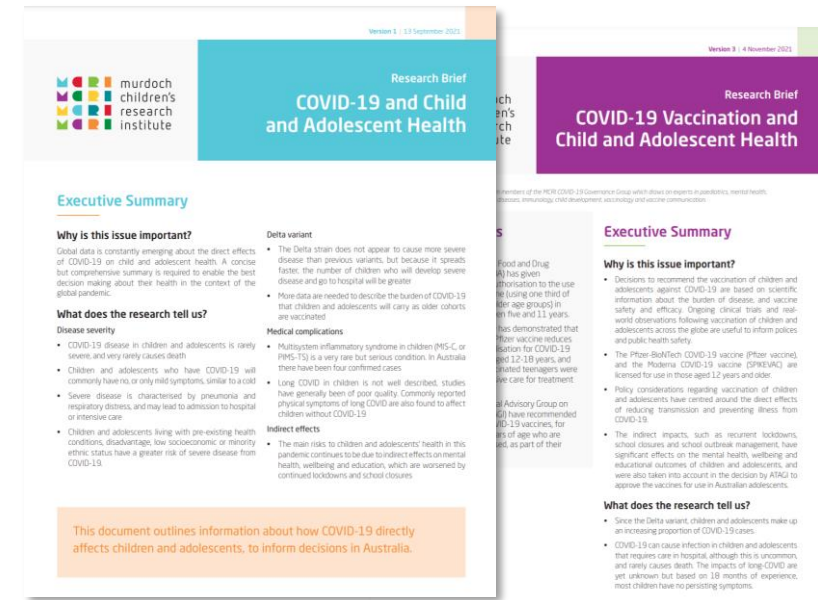
COVID-19 infection in children

- COVID-19 in children is generally mild or asymptomatic – present like other respiratory viruses
- Primary school children 5-11 years: age group least severe disease
- In 2021 NSW study of children <16 years (Delta variant; June to Oct 2021, 14,400 kids):
 - 1.3% of positive children hospitalised
 - 2.5% hospitalised for social reasons
 - Greatest risk: < 6 months and teens with obesity
 - Median length of hospital stay = 2 days
 - 21% asymptomatic (1 in 5 kids)
 - 93% did not require O2
- Most transmission happens in household settings

COVID-19 in children in NSW, Australia, during the 2021 Delta outbreak: Severity and Disease spectrum

Phoebe Williams, Archana Koirala, Gemma Saravanos, Laura Lopez, Catherine Glover, Ketaki Sharma, Tracey Williams, Emma Carey, Nadine Shaw, Emma Dickins, Neela Sitaram, Joanne Ging, Paula Bray, Nigel Crawford, Brendan McMullan, Kristine Macartney, Nicholas Wood, Beth Fulton, Christine Lau, Philip N Britton

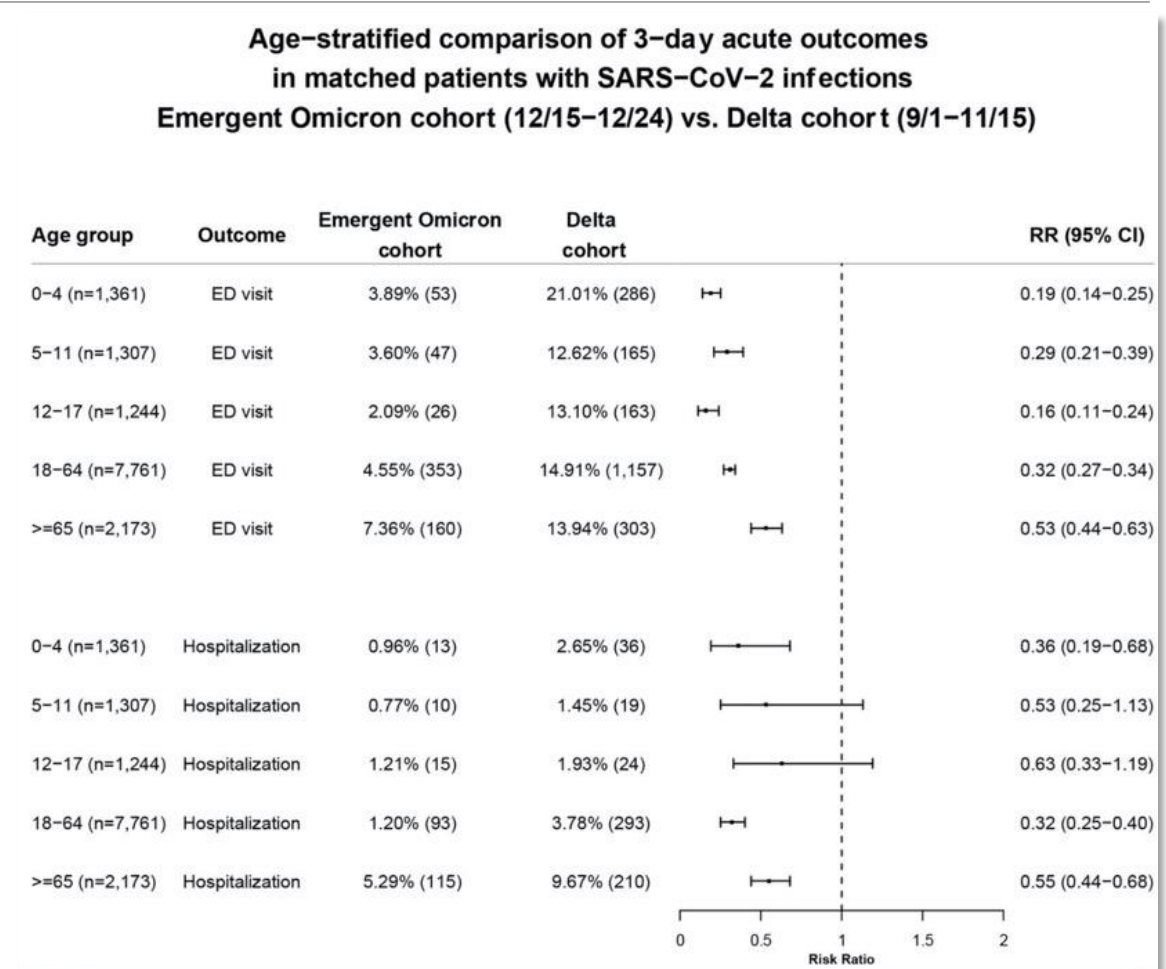
<https://www.medrxiv.org/content/10.1101/2021.12.27.21268348v1>



<https://www.mcri.edu.au/covid-19/research-briefs>

Omicron severity

- US study suggests Omicron is less severe than Delta in children
- Children are:
 - 70-80% less likely to attend an emergency department for care with Omicron infection
 - 50-60% less likely to be hospitalised for treatment
- Data closely monitored



Wang et al. Comparison of outcomes from COVID infection in pediatric and adult patients before and after the emergence of Omicron. Medrxiv Jan 2022

Complications from COVID-19 in children

- **Long COVID**

- Appears uncommon in children – more research needed using a common definition, controlled studies
- 1.8% had symptoms for >8 weeks in UK study (*Molteni 2021*)
- Persistent symptoms reported by both positive and negative children – impact of pandemic?
- In controlled studies, most reported persistent symptoms were equally common in SARS-CoV-2 positive cases and SARS-CoV-2 negative controls. Loss of smell and cognitive symptoms slightly more common (*Behnood 2021*)

- **Paediatric inflammatory multisystem syndrome (PIMS-TS or MISC-C)**

- Extremely rare (1:3,200) but severe
- Occurs 2-4 weeks after onset of COVID-19
- Vaccine offers protection against PIMS-TS (*Zambrano 2022*)

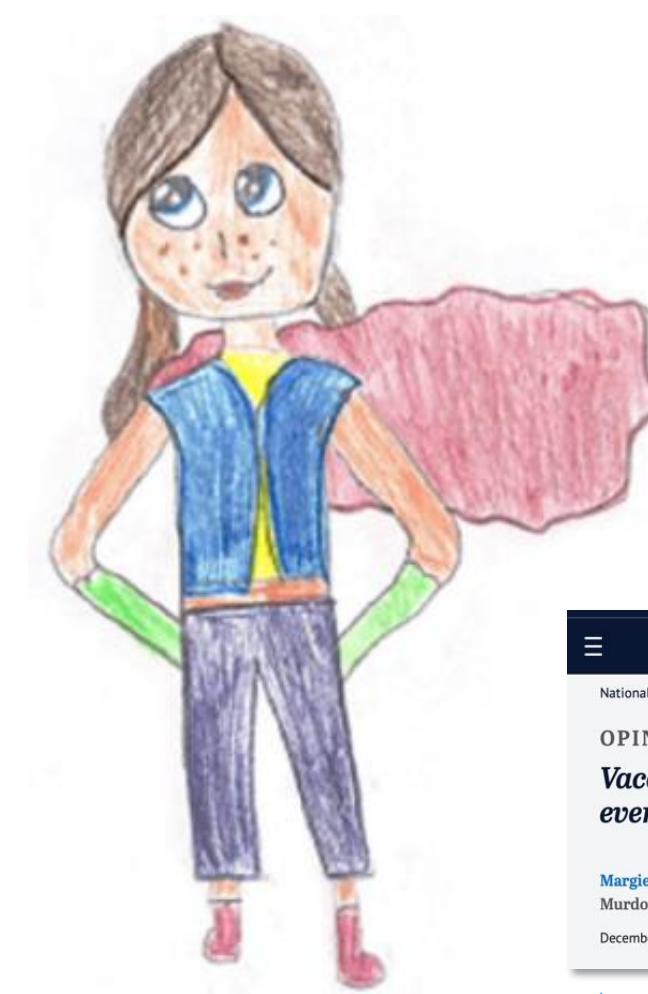
Why should we vaccinate children?

Direct benefits

- Prevent:
 - Severe disease (hospitalisation, ICU, death)
 - PIMS-TS
 - Long COVID

Indirect benefits

- COVID cases in vaccinated kids are milder
- Reduce transmission
- Reduce school closures to maintain education, wellbeing, mental health



<https://www.smh.com.au/national/vaccinating-children-will-help-to-protect-everyone-in-the-community-20211210-p59glv.html>

Vaccine efficacy for children and adolescents



Adolescents aged ≥ 12 :

- **Efficacy in USA trial: 100%**
- **Efficacy in USA trial: 96%***

Children aged 5-11:

- **Efficacy in USA trial: 90.9% (68.3-98.3)**
- 2268+ trial participants, >2 month follow-up
- Antibody response and safety profile similar to 16-25 year-olds*
- 1/3 dose, no serious AEs
- Ongoing trial of 4753 children 6-11
- Well tolerated and produced strong antibody response in ongoing USA trial*

*Data from company press releases

Australian recommendations for children aged 5-11

Brand	Dosage	Interval
Pfizer	Two doses, each one third of adult dose (10µg)	8 weeks <i>(can be shortened to min 3 weeks in special circumstances)</i>

- Children who turn 12 after 1st dose may receive adult dose 2
- Children who have had COVID-19 can be vaccinated once fully recovered
 - Consider waiting 4 weeks to maximise immune response

Precautions

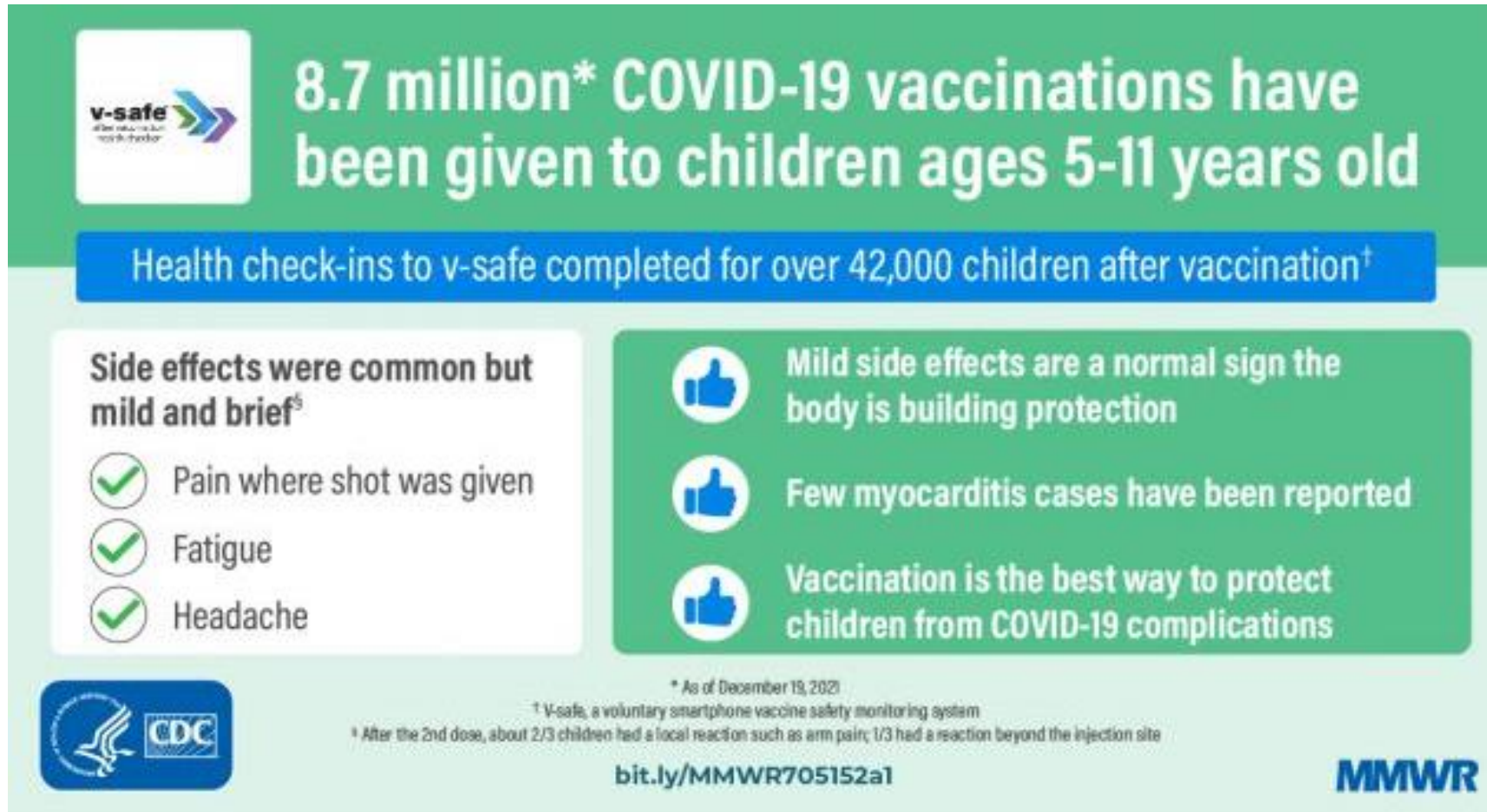
Children who should not receive the Pfizer vaccine:

- anaphylaxis to a previous dose of the Pfizer COVID-19 vaccine
- anaphylaxis after exposure to any component of the vaccine, including polyethylene glycol (PEG)
- any other serious adverse event that an experienced immunisation provider or medical specialist has confirmed was caused by a previous dose of the Pfizer COVID-19 vaccine, without another cause identified

Parents - tell your immunisation provider if your child has had:

- an allergic reaction to a previous dose or to a component of the Pfizer COVID-19 vaccine
- anaphylaxis to other vaccines or to other medicines – your provider can check to ensure there are no common components with the COVID-19 vaccine your child is receiving
- confirmed mastocytosis with recurrent anaphylaxis that requires treatment
- bleeding disorder or is taking blood thinning medication

US rollout 5-11 years



- US 4.7 million second doses given
- Overall – already more than twice the total population of children 5-11 in Australia

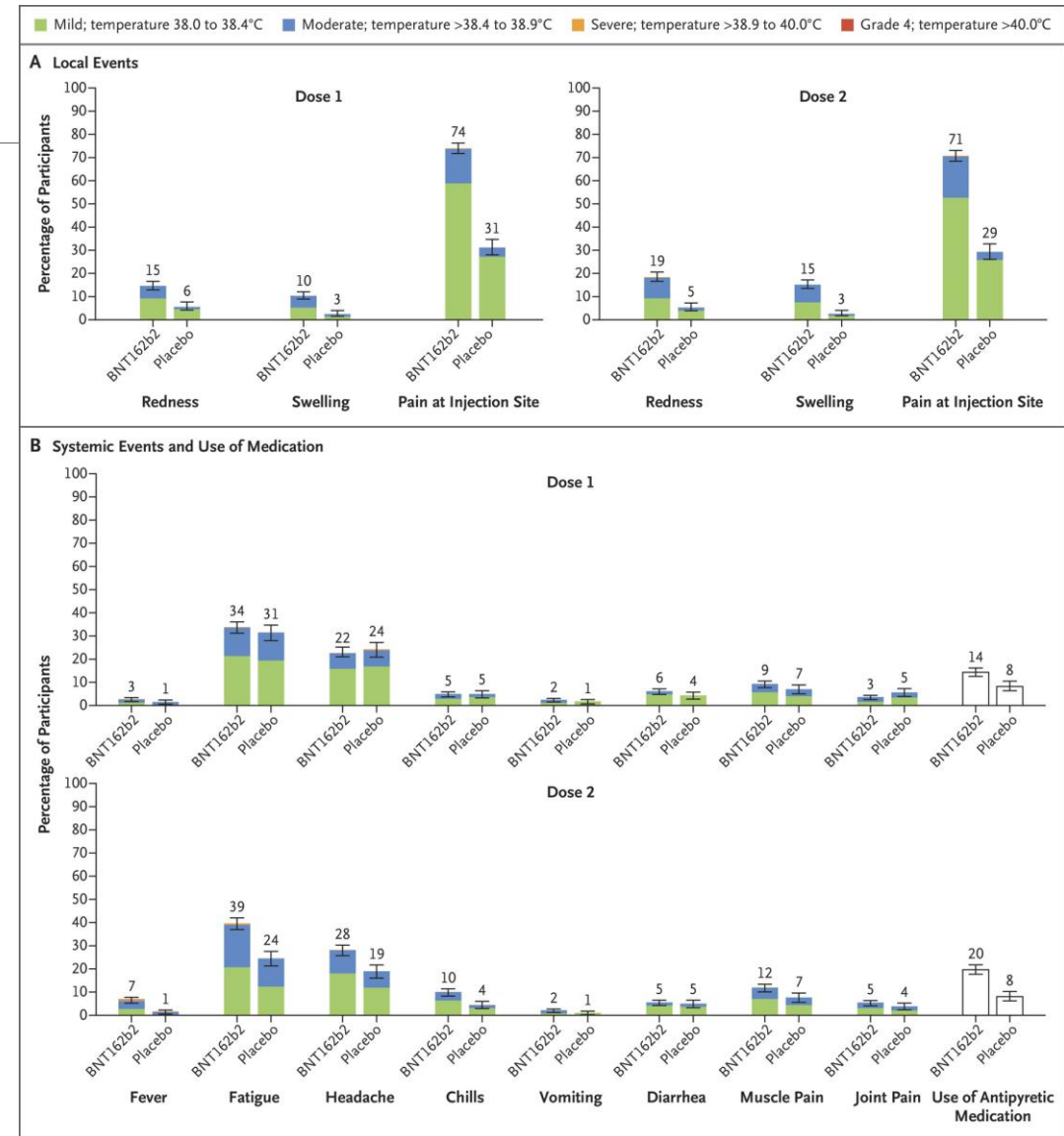
Vaccine safety

- Common and expected side effects:

- Sore arm (most common)
- Headache
- Fatigue
- Chills
- Fever



<https://www.ausvaxsafety.org.au/safety-data/covid-19-vaccines>



<https://www.nejm.org/doi/full/10.1056/NEJMoa21162908>

Myocarditis and pericarditis

- Inflammation of the heart or heart lining
- Relatively rare and treatable – no deaths
- More common after 2nd dose in young men
- Typically occurs within 1-5 days of vaccine
- Symptoms include chest pain, irregular heartbeat, fainting, shortness of breath
- Most pre-existing cardiac conditions are NOT contraindications to vaccination
- **Rate of myocarditis in boys 5-11 years is 1/10th rate in teens**

Reporting rates of myocarditis (per 1 million doses administered) after Pfizer-BioNTech COVID-19 vaccination, 7-day risk interval*

Age group	Males		Females	
	Dose 1	Dose 2	Dose 1	Dose 2
5–11 years	0.0	4.3	Not calculated [†]	2.0
12–15 years	4.8	45.7	1.0	3.8
16–17 years (included for reference)	6.1	70.2	0.0	7.6

▪ **37,810,998** total doses 1 and 2 of vaccine administered[‡]

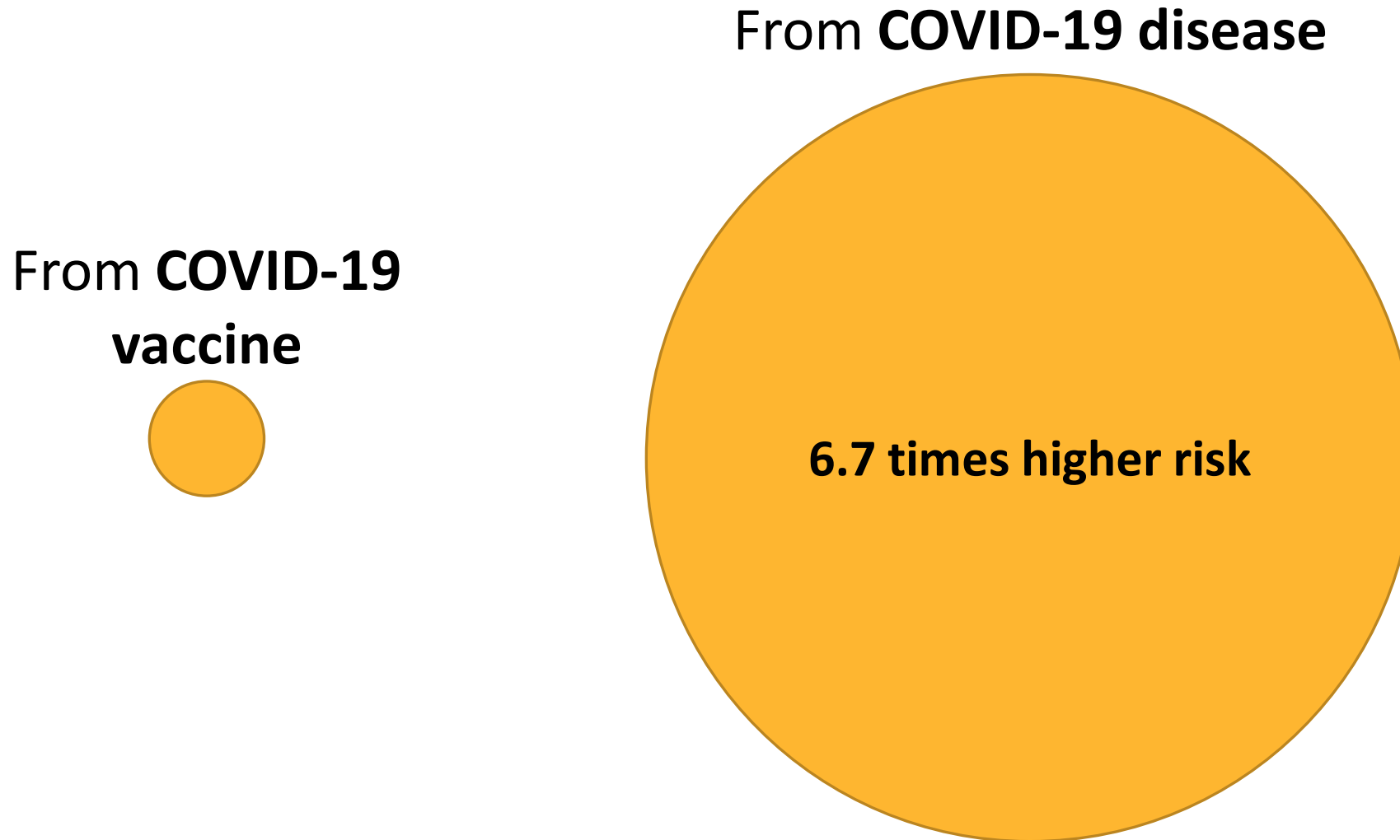
<https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2021-10-20-21/07-COVID-Su-508.pdf>



• Weekly TGA safety data: <https://www.tga.gov.au/periodic/covid-19-vaccine-weekly-safety-report-06-01-2022>

• ATAGI guidance: https://www.health.gov.au/sites/default/files/documents/2021/08/covid-19-vaccination-guidance-on-myocarditis-and-pericarditis-after-mrna-covid-19-vaccines_1.pdf

Risk of 12-17 year old developing myocarditis



Victorian immunization pathways

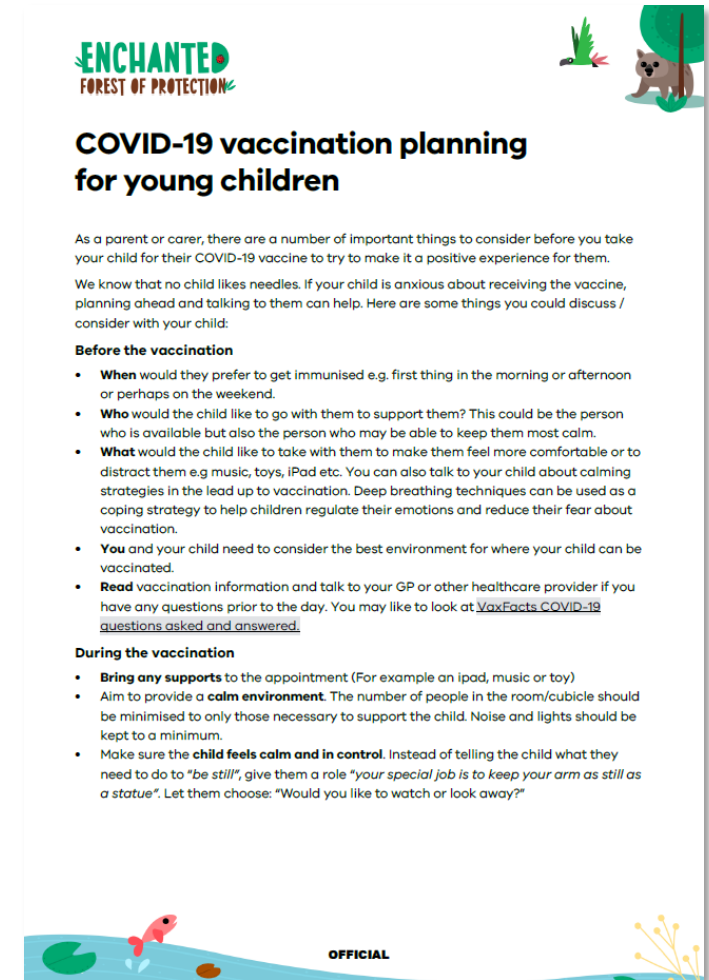


Making vaccination a positive experience for kids



Making vaccination a positive experience for kids

- Bookings are available at Victorian GPs and pharmacies, and at state [vaccination centres](#)
 - www.coronavirus.vic.gov.au/vaccination-information-children-and-teenagers
 - coronavirus.vic.gov.au/book-your-vaccine-appointment
- Have an immunisation plan
 - When they would like to go
 - Who should be with them
 - What they would like to bring
 - Are they anxious?
 - Use the immunisation plan to guide the booking process
- Make sure kids get the support they need - do not rush or attempt to force children to be vaccinated to “just get it done”



Booking childrens' vaccination appointments

- **Book at a state vaccination centre**
 - By phone
 - call the Coronavirus hotline **1800 675 398** between 8 am and 8 pm, 7 days a week
 - Online
- **Book at a GP or pharmacy**
 - Online clinic finder
 - book online using the Australian Government's Vaccination Clinic Finder



Booking childrens' vaccination appointments

- No Medicare is needed
- Proof of age will be asked for Children (Victorian state hubs)
 - Passport, a Letter from GP or health service, official printed document with DOB.
- **All** Victorian state sites have **walk up appointments** for all Aboriginal and Torres Strait Islander Community aged 5 years and older.
- If booking through a local Aboriginal Health Service or GP, please call ahead.



5-11yr old Hub Vax Tree



Ballarat and District Aboriginal Health service Children's vaccination hub

Supported access to COVID-19 vaccination

- If someone is unable to get vaccinated via their usual support networks, **Disability Liaison Officers (DLOs)** can assist them to make suitable arrangements.
 - Accessibility needs
 - Anxiety
 - Physical and development disability
 - Sensory sensitivities
- <https://www.coronavirus.vic.gov.au/vaccination-information-people-disability>



Other pathways

- School and community pop-up vaccination clinics – late January and February
- Drive through clinics coronavirus.vic.gov.au/vaccination-centres
- Severe needle phobia pathways
- In home vaccination for those who are housebound

Information and support

- COVID-19 health enquiries, including accessing Victorian State Government payments, can be accessed via the **Coronavirus hotline on 1800 375 398.**
- **Victorian Aboriginal COVID-19 Information line 1800 312 911**



Needle phobia in kids

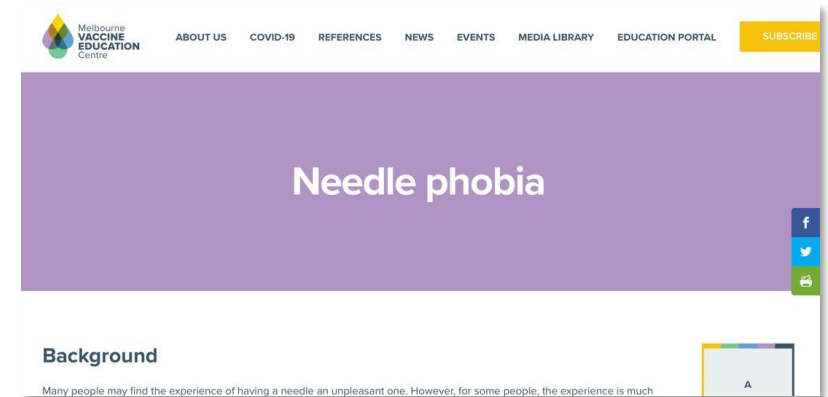
- Very common in children
 - Neurotypical kids
 - Anxiety
 - previous negative medical experiences
 - Children with developmental disabilities
 - Autism, especially with sensory difficulties
 - Behavioural difficulties

Management

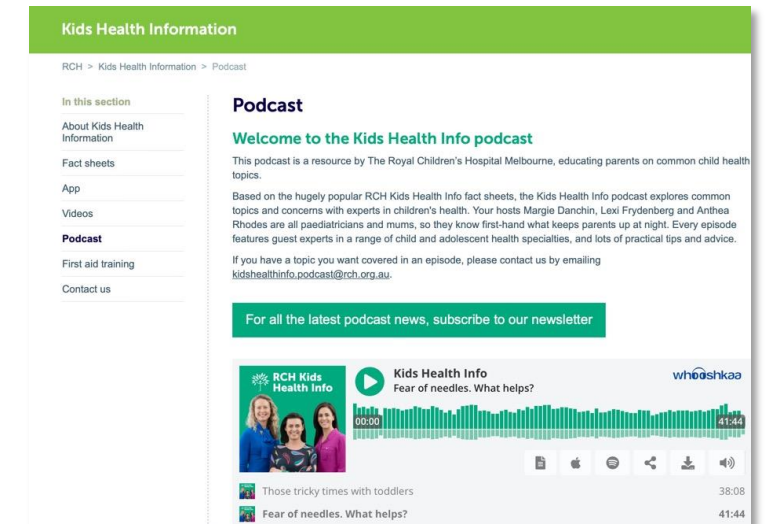
- Community resources
 - RCH [Be Positive video guides](#)
 - [Meg Foundation website](#)
- Distraction techniques
- Specialist immunization services
 - pain management and/or awake sedation



<https://www.megfoundationforpain.org/>



<https://mvec.mcri.edu.au/references/needle-phobia/>



<https://www.rch.org.au/kidsinfo/Podcast/>

Reaching our targets – and beyond

As the rollout progresses, we must:

- Leave no groups behind
- Maintain confidence and trust
- Support parents to vaccinate **kids aged 5 to 11**



Thankyou

Please feel free to ask questions
via the Q&A function

