

For health professionals

# Helping patients make informed decisions about vaccination of 5-11 year olds

## Protection from infection

Tamariki are just as susceptible to catching COVID-19 as adults but the disease in children is overall less severe. However, for a small proportion of children, there is the risk of more serious disease.

This is particularly of concern for higher risk children: Māori, Pasifika, those with co-morbidities including obesity or chronic respiratory disease, or other high risk medical conditions. Children with comorbidities are up to 25 times more likely to have severe disease. US data to December 2021 reported 0.1- 1.9 percent of reported cases in children resulted in hospitalisation.

Tamariki who get infected with COVID-19 can also in rare cases develop serious post infectious complications, in particular [multisystem inflammatory syndrome \(MIS-C\)](#)—a condition 2-6 weeks after COVID where different organ systems become inflamed, including the heart, lungs, kidneys, brain, skin, eyes, or gastrointestinal organs.

Vaccination can help keep children from getting seriously sick or post infection problems like MIS-C if they do get COVID-19.

## Protection for at risk whanau and friends

Children are more likely to be asymptomatic than adults and may spread the disease without having symptoms. Vaccination is a way to reduce this spread and protect the vulnerable, young and old. This can particularly help reduce risk for extended whanau and households where there are people who are at higher risk from COVID-19 disease.

## Key points on COVID-19 vaccine safety profile for children and teens

[Serious health events after COVID-19 vaccination are overall rare in tamariki](#). However, as COVID increasingly circulates in our communities a large number of children will be exposed, so some will get unwell.

Before recommending the Pfizer COVID-19 vaccination for tamariki, randomised clinical trials with [3,109<sup>1</sup> children aged 5-11 years old](#) were undertaken and no serious safety concerns were identified with over 90% efficacy (95% CI 67.7-98.3) shown to prevent COVID-19. In October 2021 The US FDA gave the [Pfizer-BioNTech COVID-19 vaccine](#) emergency authorization to use in children ages 5-11 years old (and also 12-17). Since that time there has been accumulating data on real world experience of using this vaccine in this age group.

Based on subsequent safety data of over 8 million doses of paediatric Pfizer given in the US, there were no unexpected serious reports. Myocarditis has been reported but is significantly less common than older adolescents and young adults.

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<sup>1</sup> Note: 3109 is the full number of children involved. We often quote 2268 which is the number vaccinated in phase 2/3 of the trial.

Learn more about the [process of developing, authorizing, and approving COVID-19 vaccines](#). Other countries including Australia, Canada and Israel have authorised this vaccine in children and now rolling out national programmes including those aged 5- 11 years.

**The benefits of COVID-19 vaccination outweigh the known and potential risks.**

[Serious health events after COVID-19 vaccination are rare.](#)

- Myocarditis:
  - Cases of myocarditis and pericarditis have been reported after the Pfizer COVID-19 vaccination in children. These reactions are rare but are more common in young adults and adolescents, particularly males; in one study, the risk of myocarditis after the second dose of Pfizer-vaccine in the week following vaccination was around 54 cases per million doses administered to males ages 12–17 years.
  - In general, adolescents ages 12 through 17 years have a higher risk for myocarditis from other triggers when compared with children ages 5 through 11 years. During clinical trials, no cases of myocarditis occurred in children aged 5 - 11 years who received the COVID-19 vaccine.
  - Vaccine safety monitoring in the United States showed that after over 8 million doses of the Pfizer vaccine given to children aged 5 – 11 years, there was substantially lower rates of myo/pericarditis seen compared with teenage and young adult rates.
    - There were 11 verified reports of myocarditis, occurring slightly more commonly after second dose and in boys. The rate for boys aged 5-11 years appears to be [4 per million in the 7 days](#) after the second dose.
- Anaphylaxis may happen after any vaccine, including COVID-19 vaccines, this is very rare and managed in the standard way for any anaphylactic allergic reaction.
- A child cannot get COVID-19 from any COVID-19 vaccine, including the Pfizer-BioNTech vaccine. Learn more about [how mRNA vaccines, like the Pfizer-BioNTech vaccines, work](#).

## Side effects

Expected side effects in the first one to two days after vaccination are less common in children than in teenagers and young adults.

- The most common side effects include a sore arm, headache and fatigue. These usually resolve within 48 hours and/or can be treated with usual over the counter medication such as paracetamol or ibuprofen for comfort.

The Pfizer COVID-19 vaccine has a very rare risk of heart inflammation (called myocarditis or pericarditis). Myocarditis and/or pericarditis occurs very rarely in younger people.

*Tell the parent to contact Healthline or your doctor if there is any side effect that concerns you, eg heart palpitations, or difficulty breathing and call 111 if it seems serious.*

## Contraindications

**Children should not receive the Pfizer COVID-19 vaccine if they have had:**

- **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.

## **Precautions (may require longer observation time post vaccine 30 minutes)**

Children with certain conditions may need additional precautions such as staying for 30 minutes of observation after having their vaccine or consulting an allergy specialist, including those who 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**
- **confirmed mastocytosis** with recurrent anaphylaxis that requires treatment.

Check **if the child has a bleeding disorder** or is **taking a blood-thinning medication**. This is important to offer safe injection techniques or help decide the best timing for injection.

## **Special circumstances to discuss before vaccination**

### **Children with heart conditions**

Children with a history of heart conditions can receive the Pfizer COVID-19 vaccine. You should consider the best timing of vaccination and whether any additional precautions are recommended on consultation with cardiology/paediatrics in specific circumstances below:

- recent (within the past 3 months) myocarditis or pericarditis (heart inflammation)
- acute rheumatic fever (with active heart inflammation) diagnosed within the last 3-6 months
- acute decompensated heart failure.

### **Immunocompromised children**

It is strongly recommended that all children with immunocompromise receive COVID-19 vaccination. The Pfizer COVID-19 vaccine is not a live vaccine. It is safe in these children and they are at higher risk of COVID-19.

### **Children with a history of COVID-19**

COVID-19 vaccination can be given after recovery from the infection, or can be deferred for up to three months after the acute illness (confirmed with a COVID-19 test). This is because evidence suggests that past infection reduces the risk of reinfection.

### **Children who have recently received another vaccine**

Children can safely receive other vaccines any time before, after or at the same time as their COVID19 vaccine.

## **Preparing Children for Vaccination**

A fact sheet to help [prepare children for vaccination](#) is available on the Immunisation Advisory Centre website, along with other resources for health professionals on [5-11 year old vaccination](#).

**CALL 0800 IMMUNE (466 863) FOR CLINICAL ADVICE: 8AM – 8PM, 7 DAYS PER WEEK**