

Myocarditis FAQ

Which COVID-19 vaccines are available for children?

Thus far, the Pfizer BioNTech, an mRNA COVID-19 vaccine, is the only approved COVID-19 vaccine for children 12 years and older and is expected to be available for 5–11-year-old children around November 3, 2021.

What side effects are seen with the Pfizer BioNTech mRNA COVID-19 vaccine in children?

The side effects seen in children are very similar to those seen in individuals 16 years and older. The most common symptoms are pain at the injection site, fatigue, headache, muscle aches, fever, chills, and joint pain. These symptoms usually resolve within 1-3 days of receiving the vaccine. While these are the most common side effects seen, many who receive the vaccine do not experience any side effects.

It is not recommended to give your child over-the-counter pain and fever-reducing medications prior to the vaccine, but it is okay to administer after the vaccine if your child is experiencing pain or fever.

Does the COVID-19 mRNA vaccine affect the heart?

Increased reports of myocarditis and pericarditis were seen after the mRNA COVID-19 vaccine, most commonly in adolescent and young adult males, occurring around 3-5 days after the second dose. These reports were very rare, on the order of tens in a million. Most individuals who developed myocarditis or pericarditis were not severely ill and responded well to supportive care.

What is myocarditis and pericarditis?

Myocarditis is inflammation of the heart muscle and pericarditis is inflammation of the outer lining of the heart. There are many causes of heart inflammation, such as many common viruses, including the virus that causes COVID-19, bacterial infections, and autoimmune conditions.

How common is myocarditis and pericarditis after the COVID-19 vaccine vs COVID-19 infection?

Developing myocarditis and pericarditis after the COVID-19 vaccine is very rare. Less than 400 cases of myocarditis and pericarditis associated with the vaccine have been reported and more

than 8 million children and adolescents have received the COVID-19 vaccine. No cases of myocarditis have yet been observed in children <12 who received the mRNA vaccine, and the lower dose in this age group may reduce the chance of this side effect.

An individual is more likely to develop myocarditis after infection with COVID-19 than from the vaccine. Shortly after cases were first reported, the Advisory Committee on Immunization Practices (ACIP) rapidly convened to evaluate the risk of myocarditis and determined that the benefits of the vaccine clearly outweigh the risks, including in adolescents and young adults.

What are the symptoms of myocarditis and pericarditis?

Symptoms include chest pain, palpitations (the feeling of one's heart beating very fast), and shortness of breath.

If your child develops any of these symptoms after receiving the COVID-19 vaccine, please contact your pediatrician and seek medical care. Our [Pediatric Infectious Diseases](#) physicians and [Pediatric Cardiology](#) physicians are available for consultation. Please call 646-962-KIDS (646-962-5437) to schedule an appointment. In case of an emergency, please call 911.

Is it recommended that my child receive the COVID-19 vaccine?

Yes, it is highly recommended that your child receives the vaccine if and when eligible. Children can develop severe illness due to COVID-19. Children are also susceptible to multisystem inflammatory syndrome in children (MIS-C), a potentially severe inflammatory syndrome seen in the 4–6-week period after COVID-19 exposure or infection, and long COVID, or persistent symptoms for many months after the infection.

The COVID-19 vaccine protects children from severe disease due to COVID-19. Hospitalization and severe illness due to COVID-19 infection are more likely in areas with low vaccination rates. Adolescents who are not vaccinated are more likely to be hospitalized than their vaccinated peers.