AAP News™

Study: Myocarditis risk 37 times higher for children with COVID-19 than uninfected peers

August 31, 2021

Melissa Jenco, News Content Editor

Article type: News

Topics: Cardiology , COVID-19 , Infectious Diseases , Vaccine/Immunization

Editor's note:*For the latest news on COVID-19, visit http://bit.ly/AAPNewsCOVID19.*

The risk of myocarditis for children under 16 years is 37 times higher for those infected with COVID-19 than those who haven't been infected with the virus, according to a new study.

Authors from the Centers for Disease Control and Prevention (CDC) said the study provides more evidence that the benefits of the vaccine outweigh a small risk of myocarditis after vaccination.

Researchers analyzed data from more than 900 hospitals and found inpatient visits for myocarditis were 42% higher in 2020 compared to 2019, according to a new *Morbidity and Mortality Weekly Report*.

Among 36 million patients, about 0.01% had myocarditis between March 2020 and February 2021. The median age of people with myocarditis was 54 years, and 59% were male.

About 42% of patients with myocarditis had a history of COVID-19, mostly within the same month. The team determined the risk of myocarditis to be 0.146% among those with COVID-19 and 0.009% among those not diagnosed with COVID-19.

Across all ages, the risk of myocarditis was almost 16 times higher for people with COVID-19 compared to those who aren't infected. The myocarditis risk is 37 times higher for infected children under 16 years and seven times higher for infected people ages 16-39 compared to their uninfected peers.

Some of the myocarditis cases seen in children with COVID-19 may be cases of multisystem inflammatory syndrome, according to the study.

Authors noted the study could not prove COVID-19 causes myocarditis, but the findings of a link between the two are consistent with several other studies.

In recent months, there has been concern about a small risk of myocarditis after receiving an mRNA COVID-19 vaccine. A June study showed among males ages 12-29 years — the group with the highest rates of myocarditis after vaccination — there would be an estimated 39 to 47 cases of myocarditis for every million second doses of vaccine. Authors of the new study say their findings support health officials' assertions that the benefits of vaccination outweigh the risks.

"These findings underscore the importance of implementing evidence-based COVID-19 prevention strategies, including vaccination, to reduce the public health impact of COVID-19 and its associated complications," they wrote.

Resources

- CDC guidance for clinicians on myocarditis after COVID-19 vaccination
- Information from the CDC on clinical considerations for COVID-19 vaccines
- CDC COVID vaccination toolkit for pediatricians
- AAP guidance on providing COVID-19 vaccines to adolescents
- Information for parents from HealthyChildren.org on preparing children and adolescents for COVID-19 vaccination