

Heart reaction probed as possible rare vaccine link in teens

June 4 2021, by Lindsey Tanner and Luran Neergaard



In this Saturday, May 15, 2021, file photo, empty vials of the Pfizer COVID-19 vaccine lie in a box during a vaccine campaign in Ebersberg near Munich, Germany. Health authorities are trying to determine whether heart inflammation that can occur along with many types of infections could also be a rare side effect in teens and young adults after the second dose of COVID-19 vaccine. Credit: AP Photo/Matthias Schrader, File

Health authorities are trying to determine whether heart inflammation that can occur along with many types of infections could also be a rare side effect in teens and young adults after the second dose of COVID-19 vaccine.

An article on seven U.S. teen boys in several states, published online Friday in *Pediatrics*, is among the latest reports of heart inflammation discovered after COVID-19 vaccination, though a link to the vaccine has not been proven.

The boys, aged 14 to 19, received Pfizer shots in April or May and developed chest pain within a few days. Heart imaging tests showed a type of heart muscle inflammation called myocarditis.

None were critically ill. All were healthy enough to be sent home after two to six days in the hospital and are doing "doing pretty well," said Dr. Preeti Jaggi, an Emory University infectious disease specialist who co-authored the report.

She said more follow-up is needed to determine how the seven fare but that it's likely the heart changes were temporary.

Only one of the seven boys in the *Pediatrics* report had evidence of a possible previous COVID-19 infection and doctors determined none of them had a rare inflammatory condition linked with the coronavirus.

The cases echo reports from Israel in young men diagnosed after receiving Pfizer shots.

The U.S. Centers for Disease Control and Prevention [alerted](#) doctors last month that it was monitoring a small number of reports of heart inflammation in teens and young adults after the mRNA vaccines, the kind made by Pfizer and Moderna.

The CDC hasn't determined if there's really a link to the shots, and continues to urge that everyone 12 and older get vaccinated against COVID-19, which is far riskier than the vaccine. The Pfizer vaccine is available to those as young as 12; the Moderna shot remains cleared only for adult use.

This kind of heart inflammation can be caused by a variety of infections, including a bout of COVID-19, as well as certain medications—and there have been rare reports following other types of vaccinations.

Authorities will have to tease out whether cases following COVID-19 vaccination are occurring more often than that expected "background rate."

For now, the CDC says most patients were male, reported symptoms after the second dose, and their symptoms rapidly improved.

"I think we're in the waiting period where we need to see whether this is cause-and-effect or not," said John Grabenstein of the Immunization Action Coalition, a former director of the Defense Department's immunization program.

A Pediatrics editorial noted that among U.S. children under age 18, there have been over 4 million COVID-19 cases, more than 15,000 hospitalizations and at least 300 deaths.

The CDC on Friday reported that COVID-19-related hospitalizations of kids aged 12 to 17 fell early this year but rose again in March and April. Possible reasons include the spread of new virus variants, more kids going back to school, or the relaxing of mask and social distancing rules, agency researchers said.

While infected kids are less likely to become critically ill than adults, the

CDC data on about 200 hospitalizations from 14 states show that one-third were treated in intensive care units. The report had no mention of any heart involvement.

CDC Director Dr. Rochelle Walensky said the hospitalizations raise concerns and urged parents to get their kids vaccinated.

"Vaccination is our way out of this pandemic," she said in a statement.

The Pediatrics editorial said the heart inflammation cases warrant more investigation but added that "the benefits of vaccination against this deadly and highly transmissible disease clearly far outweigh any potential risks."

Editorial co-author Dr. Yvonne Maldonado, head of an American Academy of Pediatrics infectious diseases committee, is involved in Pfizer vaccine studies, including a COVID-19 vaccine study in children.

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