

# Questions abound regarding young athletes, heart disease and COVID-19

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Reports that some young athletes testing positive for COVID-19 also had increased rates of heart swelling have concerned sports medicine physicians around the country.

"SARS-CoV-2, the virus responsible for COVID-19, has an affinity for the heart through ACE2 receptors, and this may be responsible for heart inflammation," said Irfan Asif, M.D., a sports medicine physician and chair of the Department of Family and Community Medicine at the University of Alabama at Birmingham School of Medicine. "This could lead to myocarditis in the heart, which could be deadly for athletes who play sports with this condition."

Asif is the incoming chair of the American Medical Society for Sports Medicine Collaborative Research Network. In this role, he is working with researchers from the University of Washington and Harvard University to study the effects of COVID-19 on the hearts of athletes.

"We are working to link the Power 5 conferences with researchers at these universities to get a better understanding of the effects of SARS-CoV-2 on the heart," he said.

Swelling of the heart, a condition known as myocarditis, is fairly rare in [young athletes](#); but there is evidence of a link between increased rates of myocarditis and COVID-19. A recent Ohio State University study indicated that 15 percent of athletes with COVID-19 had swelling of the heart.

"There are roughly 500,000 athletes who play collegiate sports, and about one in 50,000 dies from a health-related condition each year," Asif said. "Myocarditis is one of the leading causes of sudden cardiac death in young athletes. Since we know that COVID-19 causes heart swelling, myocarditis could become a greater risk if not recognized quickly."

Asif says a study in Germany indicated that as many as 60 percent of COVID patients had heart inflammation noted on cardiac MRI two months post-infection. The study needs to be confirmed in young athletes since the study was performed on older adults. Nevertheless, the

findings are concerning.

"We need to learn more about the impact of COVID-19 on the [heart](#), and that is where studies of college athletes will be helpful. It will allow us to understand the most effective techniques and protocols for detecting myocarditis. Down the road, we hope this will lead to better screening and prevention strategies," Asif said. "Right now, there are too many unknowns in regard to COVID-19, and this makes it difficult to make plans for [athlete](#) safety."

Provided by University of Alabama at Birmingham

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