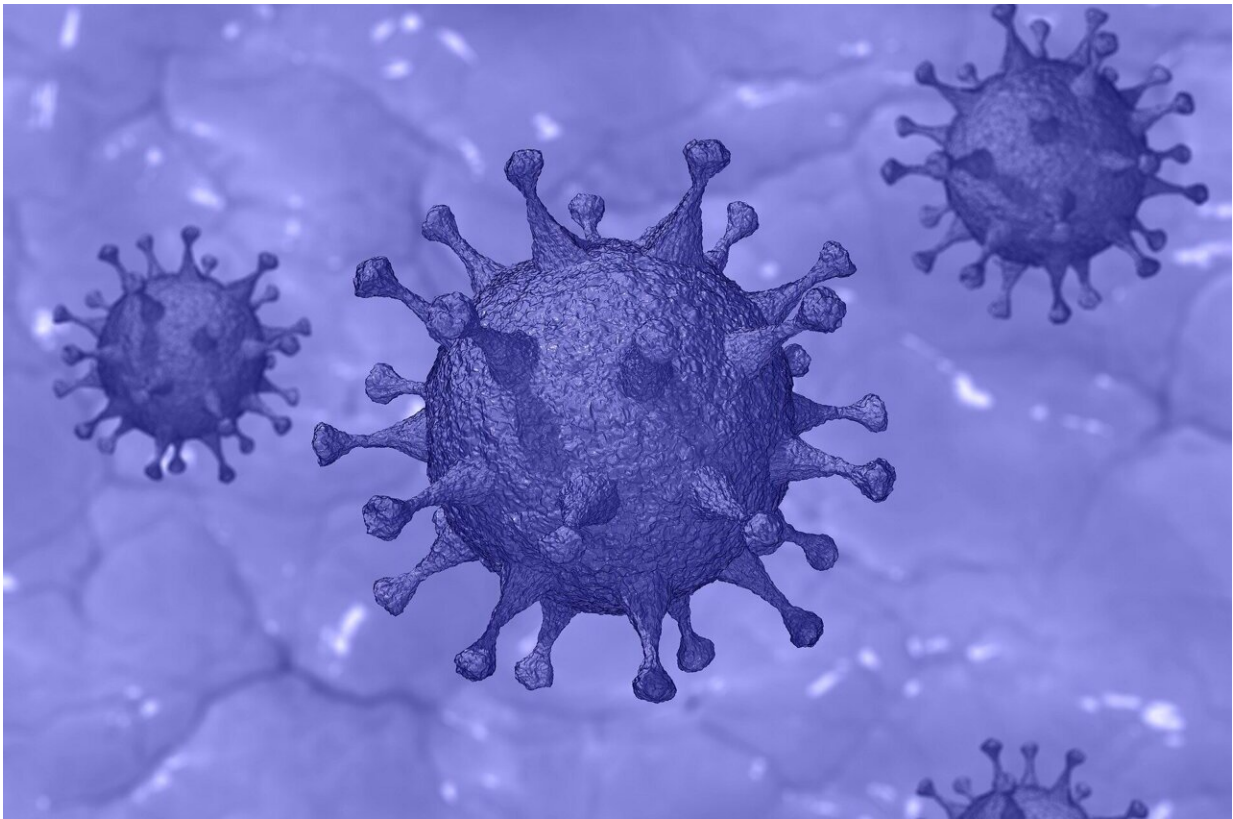


# Individuals with long COVID more likely to experience heart problems, finds study

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Experiencing lasting symptoms months after catching COVID-19, also known as long COVID, was found to more than double a person's likelihood of developing cardiovascular issues, according to a study

being presented at the American College of Cardiology's Annual Scientific Session Together With the World Congress of Cardiology.

The study—a systematic literature review and meta-analysis of 11 major studies involving a total of 5.8 million people—represents the most comprehensive effort to date to examine cardiovascular complications from long COVID. Estimates of the number of people affected by long COVID vary substantially, but recent surveys suggest about 1 in 7 people in the U.S. have experienced long COVID.

Researchers found consistent evidence that individuals with long COVID were significantly more likely than those who never had COVID-19 to experience symptoms associated with heart problems such as [chest pain](#), shortness of breath, palpitations and fatigue, and more likely to show markers of heart disease or elevated [cardiovascular risk](#) in [medical imaging](#) and diagnostic tests.

"COVID-19 is more than a simple respiratory disease—it is a syndrome that can affect the heart," said Joanna Lee, a [medical student](#) at David Tvildiani Medical University in Tbilisi, Georgia, scholar at the Global Remote Research Scholars Program (GRRSP) and the study's lead author.

"Clinicians should be aware that [cardiac complications](#) can exist and investigate further if a patient complains of these symptoms, even a long time after contracting COVID-19. For patients, if you had COVID-19 and you continue to have difficulty breathing or any kind of new [heart problems](#), you should go to the doctor and get it checked out."

GRRSP researchers systematically screened a total of 982 studies published between 2020-2022 and selected 74 studies for thorough review.

Of these, they identified 11 studies that included data on cardiovascular outcomes among people with long COVID as well as a control group of participants who never had COVID-19. Of more than 5.8 million participants included across the 11 studies, almost 450,000 experienced cardiac complications. Among those with long COVID, the rate of cardiac complications was 2.3-2.5 times higher compared with those in the control group.

"Coordinated efforts among primary care providers, emergency room staff and cardiologists could help with early detection and mitigation of cardiac complications among long COVID patients," Lee said.

There is no single definition for long COVID. For this study, researchers defined long COVID as symptoms persisting for at least four weeks and occurring at least two months after the initial COVID-19 infection.

Patients with preexisting cardiovascular disease were included in the samples, but their symptoms were only counted as [cardiovascular complications](#) of long COVID if they emerged after the COVID-19 infection. For example, if someone with a history of ischemic heart disease was diagnosed with new onset atrial fibrillation post-COVID-19, they were counted.

Although the study did not investigate the possible biological mechanisms involved in the association between long COVID and heart complications, researchers said that chronic inflammation, which has been documented by persistently elevated inflammatory markers in people with long COVID, could be a factor.

They added that a high level of variability between studies in terms of population and data collection methods also limited the ability to draw definitive conclusions—a common limitation with COVID-19-related studies, given the lack of long-term data.

Further analyses to determine whether people with preexisting [cardiovascular disease](#) may face different cardiovascular risks related to long COVID as compared with the general population are planned, researchers said.

**More information:** Conference:  
[www.expo.acc.org/ACC23/Public/Enter.aspx](http://www.expo.acc.org/ACC23/Public/Enter.aspx)

Provided by American College of Cardiology

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