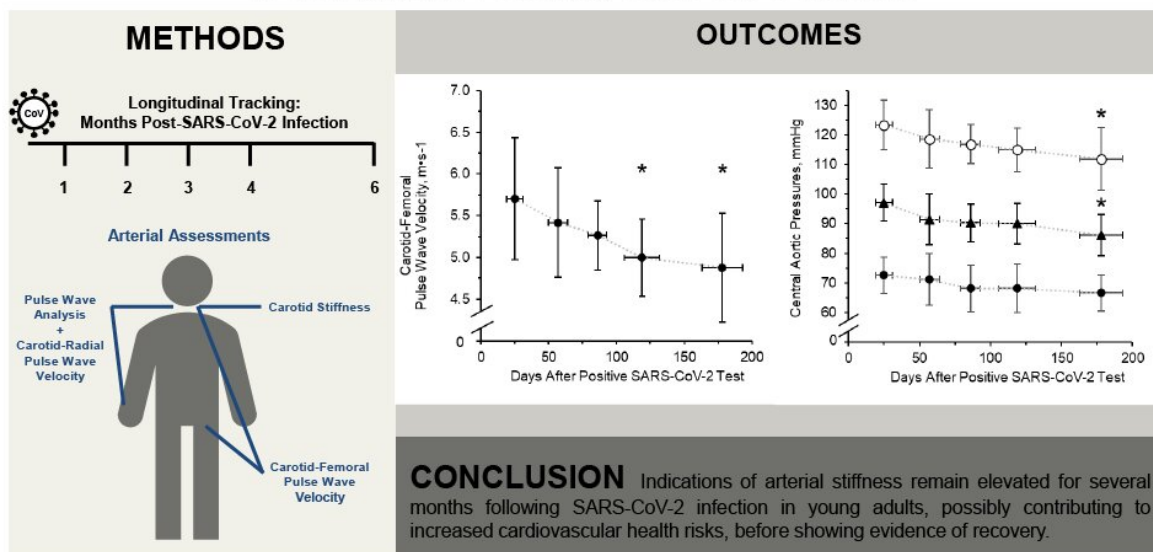


# Cardiovascular recovery in young adults takes several months after COVID-19 infection

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## Six-Month Longitudinal Tracking of Arterial Stiffness and Blood Pressure in Young Adults Following SARS-CoV-2 Infection



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Arterial stiffness and blood pressure in young, otherwise healthy adults may take as long as six months to improve following a COVID-19 infection, according to research conducted at Appalachian State University in North Carolina. The discovery was made in a follow-up study using longitudinal tracking of people recently infected with COVID-19. The findings are published ahead of print in the *Journal of Applied Physiology*.

Physiologists wanted to know if or when [arterial stiffness](#) and blood pressure in 14 [young adults](#) (seven men and seven women) would improve following a COVID-19 infection. Progress in these areas would ultimately improve vascular health during the recovery process. Arterial stiffness is typically caused by aging, hardening of artery walls and inflammation. Increased arterial stiffness or blood pressure is associated with an increased risk of cardiovascular diseases such as [heart failure](#), hypertension and stroke.

The researchers performed testing on the study volunteers in a lab once a month for six months. Testing included a health survey and measurements of blood pressure and pulse wave velocity, and pulse wave analysis, among other markers of arterial disease. Researchers began seeing improvements to arterial stiffness and [blood pressure](#) by months five and six. The results of the study suggest that several months of recovery after infection may be necessary, even for young, [healthy adults](#).

"We need a better understanding of the long-term impact of COVID-19," said Stephen Ratchford, Ph.D., principal investigator on the study. "I think this is a step in the right direction to understanding the potential long-term vascular complications caused by COVID-19. If it can take young, relatively healthy individuals this long to recover, I am curious about more susceptible populations and how others will recover following additional infections with other COVID-19 variants."

**More information:** Rachel E. Szeghy et al, Six-month longitudinal tracking of arterial stiffness and blood pressure in young adults following SARS-CoV-2 infection, *Journal of Applied Physiology* (2022). DOI: [10.1152/jappphysiol.00793.2021](https://doi.org/10.1152/jappphysiol.00793.2021)

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