

Singapore

Singapore study on long COVID finds unvaccinated survivors at higher risk of heart complications

Researchers found that unvaccinated people who had contracted COVID-19 faced a 56 per cent higher risk of developing new heart complications one year after infection.



A COVID-19 vaccination exercise for the elderly at Tanjong Pagar Community Centre in Singapore on Jan 27, 2021. (File photo: CNA/Jeremy Long)

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SINGAPORE: A study involving almost 1.8 million Singaporeans and permanent residents has found that unvaccinated people who have had COVID-19 are more likely to develop heart problems a year later.

The study, led by Nanyang Technological University (NTU) and published in the [Clinical Infectious Diseases academic journal](#) on Sep 25, is the first and largest to examine the risk of long Covid in a highly vaccinated, multi-ethnic Southeast Asian population, said NTU in a news release on Oct 9.

The study found that 912 out of 106,012 patients – all unvaccinated – who had recovered from COVID-19 reported "lingering after-effects" consistent with long COVID syndromes, which may include fatigue, shortness of breath, memory problems, and heart complications such as cardiovascular, cerebrovascular and thrombosis.

The study was carried out by researchers from the Lee Kong Chian School of Medicine (LKC Medicine), the Ministry of Health, Singapore General Hospital and the National Centre for Infectious Diseases.

"We were motivated to conduct our study after hearing of increasing reports of long COVID syndrome. Even though we are now in the post-pandemic period, our findings remain relevant as COVID is here to stay with evolving variants, and the world will continue to need to understand its effects and safeguard ourselves," said NTU LKC Medicine's Assistant Professor Lim Jue Tao of Infectious Disease Modelling and lead author of the study.

"Our study underscores the need for people to get vaccinated and boosted as a vital means of protection."

How the study was conducted:

Using national databases on COVID-19 tests and medical claims, researchers found 106,012 Singapore citizens and permanent residents who were diagnosed with COVID-19 between Sep 1 and Nov 31, 2021 – when the [Delta variant](#) was predominant.

Of these, 9,107 were unvaccinated, and the rest were either vaccinated or vaccinated and boosted.

This group – those diagnosed with COVID-19 – was cross-referenced with a group of people not known to be infected with the virus.

This was made up of people who had visited Public Health Preparedness Clinics (PHPC) or polyclinics from April 2020 to December 2022 for acute respiratory symptoms and tested negative for COVID-19.

All participants were older than 18 years.

Both groups - infected and not infected - were tracked over an average of 300 days for heart complications.

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Researchers found that unvaccinated COVID-19 survivors face a 56 per cent higher risk of developing new heart complications one year after infection.

They gave an example of 311 people who did not have dysrhythmias - or abnormal heartbeat - before being diagnosed with COVID-19, but developed symptoms a year later.

When the researchers analysed boosted, vaccinated and unvaccinated COVID-19 survivors, and those who were uninfected, they found that there was a lowered risk with vaccinated or boosted individuals.

Vaccinated COVID-19 survivors had an 11 per cent risk of heart complications compared with uninfected individuals, while boosted COVID-19 survivors had the same risk as those who were uninfected.

The researchers also found that the risk of cardiovascular complications after being infected with COVID-19 was "evident even in mild cases who were not hospitalised".

"The findings show the importance of vaccination and boosting to attenuate potential complications of long COVID," NTU noted.

In a recent speech, [Health Minister Ong Ye Kung](#) stressed that seniors and vulnerable individuals should keep up to date with their vaccinations, with one shot at least once a year.

"As I have said before, the COVID-19 virus has not become milder since the pandemic crisis. It is us who have gotten stronger and more resilient, and that is because of vaccinations as well as safe recovery from infections," said Mr Ong on Oct 6.

"But like all protection, it will wane over time."

He also said that Singapore was experiencing another Covid-19 infection wave, with more people expected to fall sick and be hospitalised in the coming weeks.

Researchers will next focus on neuropsychiatric and respiratory complications, and the effect of long COVID on healthcare utilisation, said NTU.