

# Breathlessness in patients with long COVID may signal heart problems

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A small study has suggested that COVID-19 patients who continue to be short of breath during physical activity one year after recovering from the infection may have suffered heart damage. The research is presented today at EuroEcho 2021, a scientific congress of the European Society

of Cardiology (ESC).

"The findings could help to explain why some patients with long COVID still experience breathlessness one year later and indicate that it might be linked to a decrease in [heart](#) performance," said study author Dr. Maria-Luiza Luchian of University Hospital Brussels, Belgium.

There is increasing evidence of cardiovascular complications due to COVID-19 and of long-lasting symptoms such as dyspnoea (shortness of breath), known as long COVID. This study investigated whether subclinical heart abnormalities were more common in long COVID patients with dyspnoea—thereby potentially explaining the reason for their symptoms.

The study included 66 patients without previous heart or lung disease who were hospitalized with COVID-19 *between* March and April 2020 at University Hospital Brussels. At one-year after hospital discharge, spirometry together with chest computed tomography were used to assess [lung function](#) and possible sequela of COVID-19. Cardiac ultrasound was performed to examine heart function and included a new imaging technique called myocardial work which provides more precise information on heart function than previous methods.

The average age of participants was 50 years and 67% were men. At one year, 23 patients (35%) had shortness of breath during effort.

The researchers examined the association between imaging measures of heart function and shortness of breath at one year after adjusting for age and gender. The analysis showed that abnormal heart function was independently and significantly associated with persistent dyspnoea. Cardiac imaging revealed poorer heart performance in patients with versus without dyspnoea at one year after hospitalization due to COVID-19.

Dr. Luchian said that their "study shows that more than a third of COVID-19 patients with no history of heart or [lung disease](#) had persistent dyspnoea on effort a year after discharge from hospital. When looking in detail at heart function by cardiac ultrasound, we observed subtle abnormalities that might explain the continued breathlessness."

She concluded that "myocardial work could be a new echocardiographic tool for early identification of heart function abnormalities in patients with long COVID-19, who might need more frequent and long-term cardiac surveillance. Future studies including different COVID-19 variants and the impact of vaccination are needed to confirm our results on the long-term evolution and possible cardiac consequences of this disease."

**More information:** Session: [digital-congress.escardio.org/ ... r-covid-19-infection](https://digital-congress.escardio.org/...r-covid-19-infection)

Provided by European Society of Cardiology

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