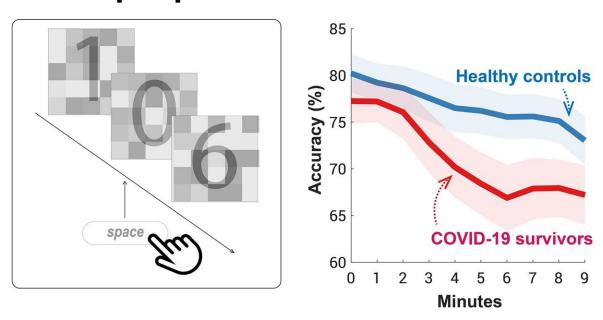


## Attention and memory deficits persist for months after recovery from mild COVID

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## Attention declines rapidly over minutes in people who had COVID-19



Graphical abstract. Credit: DOI: 10.1093/braincomms/fcab295

Researchers from Oxford's Department of Experimental Psychology and Nuffield Department of Clinical Neurosciences have shown that people who have had COVID but don't complain of long COVID symptoms in daily life nevertheless can show degraded attention and memory for up to 6–9 months.



Previous studies have shown that after acute COVID-19 infection some people can continue to suffer from <u>cognitive symptoms</u> such as difficulties in concentrating, colloquially referred to as brain fog, as well as forgetfulness and fatigue—features of the 'long COVID' syndrome.

But it was not known whether cognitive performance can also be affected in individuals who had mild symptoms and report no concerns after recovery from acute COVID infection.

In this study, participants were asked to complete a number of exercises to test their memory and cognitive ability, with a focus on cognitive functions critical for <u>daily life</u>, such as sustaining attention, memory, planning and semantic reasoning.

All the participants had previously suffered from COVID-19 but were not significantly different from a <u>control group</u> at the time of testing on factors such as fatigue, forgetfulness, sleep patterns or anxiety.

The researchers found that the participants performed well in most abilities tested, including working memory and planning, but they displayed significantly worse episodic memory (up to six months post-COVID infection) and a greater decline in the ability to sustain attention over time (for up to nine months) than uninfected individuals.

Dr. Sijia Zhao of the Department of Experimental Psychology, University of Oxford, said: "What is surprising is that although our COVID-19 survivors did not feel any more symptomatic at the time of testing, they showed degraded attention and memory. Our findings reveal that people can experience some chronic cognitive consequences for months."

Professor Masud Husain said: "We still do not understand the mechanisms that cause these cognitive deficits, but it is very encouraging



to see that these attention and memory return largely to normal in most people we tested by 6-9 months after infection, who demonstrated good recovery over time."

The paper, "Rapid vigilance and episodic memory decrements in COVID-19 survivors," is published in *Brain Communications*.

**More information:** Sijia Zhao et al, Rapid vigilance and episodic memory decrements in COVID-19 survivors, *Brain Communications* (2021). DOI: 10.1093/braincomms/fcab295. academic.oup.com/braincomms/ar ... /4/1/fcab295/6511053

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