

Could I have had COVID and not realised it?

March 21 2022, by Ashwin Swaminathan



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It seems not a day goes by without learning someone in our inner circle of family, friends and colleagues has COVID. When we ask how unwell our acquaintance is, the responses vary from "they're really crook" to "you wouldn't even know they had it."

This is in line with studies that report moderate to severe illness in a minority of people (usually older with other [risk factors](#)) and that [up to one in three positive people exhibit no symptoms](#).

Given the ubiquitous presence of this highly infectious coronavirus in our community and the high rate of asymptomatic illness, those who have not been diagnosed with COVID might wonder, "how would I know if I had been infected?" And, "does it matter if I have?"

How COVID is diagnosed

Most people know they've had COVID because they had a fever or upper respiratory tract symptoms and/or were exposed to an infected person AND had a swab test (PCR or rapid antigen) that detected the COVID virus (SARS-CoV-2) in the upper airway.

At the beginning of 2022, many people with consistent symptoms or high-risk exposures were not able to access PCRs or RATs to confirm their diagnosis, but instead presumed themselves positive and quarantined.

It is possible to diagnose past [infection](#) in those who never tested positive. A [blood test](#) can look for [SARS-CoV-2 antibodies](#) (also known as immunoglobulins). When we are infected with SARS-CoV-2, our immune system launches a precision counter strike by producing [antibodies](#) against viral targets, specifically the Spike (S) and Nucleocapsid (N) proteins. COVID vaccination induces a similar immune response against the S protein only. The S antibody "neutralizes" the invader by preventing the virus from attaching to human cells.

These antibodies can be detected within one to three weeks after infection and persist for [at least six months—potentially much longer](#). A blood test that shows antibodies to S and N proteins indicates someone has been previously infected. Detection of antibodies to the S protein only indicates vaccination (but not infection).

The problem with antibody tests

Before you rush off to get a COVID antibody test, there are a few notes of caution. There is still [much to learn about the characteristics](#) of the immune response to COVID infection. Not everyone mounts a detectable antibody response following infection and levels can decline to undetectable levels after several months in some people.

Because there are other circulating seasonal coronaviruses (such as those that cause the common cold), tests may also pick up antibodies to non-SARS-CoV-2 strains, leading to "false positive" results.

Commercial and public hospital pathology labs can perform SARS-CoV-2 antibody testing, but the interpretation of results should be undertaken carefully.

So, antibody testing should really only be done when there's a good reason to: say, when confirming past infection or effectiveness of vaccination is important for the current care of an individual. Diagnosing a post-infectious complication or eligibility for a specific treatment, for example. It could also be useful for contact tracing or for assessing the background population rate of infection.

Antibody testing a population

"[Seroprevalence studies](#)" test for the presence of SARS-CoV-2 antibodies in repositories of stored blood that are representative of the general population, such as from a blood bank. This data helps to understand the true extent of COVID infection and vaccination status in the community (and informs our assessment of population susceptibility to future infection and reinfection). It's more useful than daily reported case numbers, which are skewed towards symptomatic individuals and those with access to swab testing.

New [research](#) from the World Health Organization, which is yet to be reviewed by other scientists, reported the results of a meta-analysis of over 800 seroprevalence studies performed around the world since 2020. They estimated that by July 2021, 45.2% of the global population had SARS-CoV-2 antibodies due to past infection or vaccination, eight times the estimate (5.5%) from a year earlier.

There are [plans](#) to conduct [fresh seroprevalence studies](#) in Australia in the coming year, which will [update local data](#) and help us understand to what extent the omicron wave has washed through the population.

Does it matter if I have had COVID and didn't know?

For most people, knowing your COVID infection status is unlikely to be more than a topic of dinnertime conversation.

While some studies have pointed to a less robust and durable antibody response following [mild](#) or [asymptomatic](#) infection compared with severe illness, it is not known how this influences protection from reinfection. Certainly, the knowledge we have antibodies from past infection should not deter us from being fully up-to-date with COVID vaccination, which remains the best protection against severe illness.

There are reports of people with mild or asymptomatic COVID infection developing [long COVID](#)—persistent or relapsing symptoms that last several months after initial infection. Symptoms can include shortness of breath, physical and mental fatigue, exercise intolerance, headaches, and muscle and joint pain.

However, the [likelihood](#) of developing this condition appears higher in those who suffer a heavier initial bout of COVID illness. This might be linked with [higher viral load](#) at that time.

Bottom line

As we enter the third year of the COVID pandemic and given that up to one in three infections may be asymptomatic, it is likely many of us have been infected without knowing it.

If you are experiencing lingering fatigue, brain fog or other symptoms that could be long COVID, you should talk to your GP. Otherwise, knowing our COVID infection status is unlikely to be of much practical benefit. Antibody testing should be reserved for specific medical or public health indications.

Being up-to-date with COVID vaccination is still our best defense against [severe illness](#) moving forward.

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