



WELLNESS

Breakthrough COVID Infections: How Long Are Vaccinated People Contagious?

Here's what experts know so far about the timeframe for spreading the virus.

By Julia Ries

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COVID-19 if you're infected.

There has been a *lot* of confusion about breakthrough [COVID-19](#) infections recently — what it means to test positive after being fully vaccinated, what the risk for developing “long COVID” is and how vaccinated people can spread the coronavirus.

The truth is that scientists are still learning about post-vaccination infections and are still digging for answers to these questions, including how long people with breakthrough infections are contagious. But given the data available so far, most infectious disease specialist agree it is most certainly less than unvaccinated people who get COVID-19.

Numerous studies have found that vaccinated people who test positive generally clear the virus out much faster than unvaccinated people who are infected, suggesting that those with breakthrough cases are most likely contagious for a shorter period of time.

Some evidence suggests that vaccinated people, on average, clear the virus out within five to six days, whereas it generally takes unvaccinated people seven to 10 days. According to infectious disease specialists, this adds up — vaccination teaches the immune system how to deal with COVID, so if you're exposed, your body can get a head start on attacking the virus and clearing it out quicker.

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But to get a solid sense of how long people with breakthrough infections are contagious, we need real-world data on transmission events, which we don't have much of. "We don't actually know the degree of spread from vaccinated because you really do have to do a good contact-tracing study," [Monica Gandhi](#), an infectious disease specialist at the University of California, San Francisco, told HuffPost.

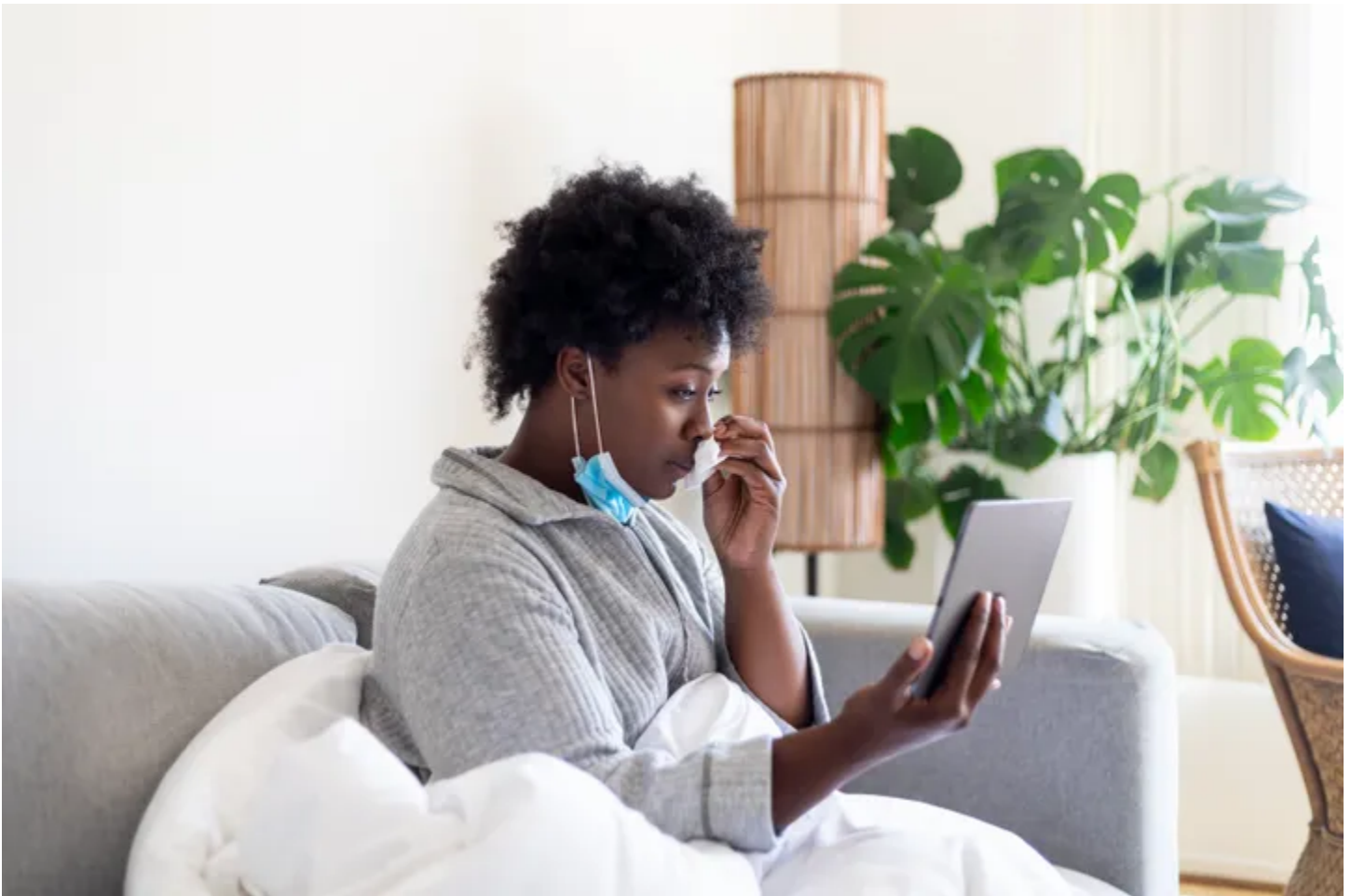
How we determine COVID infectiousness

Scientists have been evaluating infectiousness by looking at the amount of the virus detected in people's noses. A person's nose is swabbed with a PCR test kit, which tells us two things: if virus is present and, if so, an estimate of how much virus is present (aka the viral load). But what the PCR doesn't tell us is [how infectious](#) that virus is. Usually, with other diseases, when we want to measure infectiousness, we culture (in other words, examine) the virus from a person's nose to see if it's alive or not.

"A PCR just amplifies the sequence of virus but in no way tells if it's alive or healthy and can go from one person to the next," Gandhi said.

contagious vaccinated people with breakthrough infections are would be through contact tracing. With tracing studies, you could actually see if and when vaccinated people spread the virus to others.

But we don't have many contract-tracing studies looking at breakthrough cases and transmission events yet. Many of the insights we have on the contagiousness of breakthrough cases are gleaned from laboratory studies and PCR tests that usually only tell us if there's virus in a person's body, not whether it's infectious and for how long it might be infectious.



LUIS ALVAREZ VIA GETTY IMAGES

Vaccinated people, on average, are less contagious overall and for a shorter period of time.

contagious

So, while the true answer to how long people with breakthrough infections are contagious is “we don’t really know yet,” scientists have learned a few things.

A [study](#) from Singapore found that although the viral loads for vaccinated and unvaccinated people had similar peaks at the start of the infection, the viral loads in vaccinated people dropped much more rapidly compared to unvaccinated people. The viral load in vaccinated people dropped to levels that are generally believed to be not infectious around six days after the the onset of illness. Meanwhile, the viral load in unvaccinated people dropped to that same level at the 10-day mark.

A [Harvard study](#) similarly found that vaccinated people appear to clear the virus in 5½ days versus unvaccinated people who cleared it out in 7½ days. Another [report](#) from the University of Illinois found more of the same. Vaccinated people “clear it from the upper airway faster, so they are less contagious,” said [Adam Ratner](#), the director of pediatric infectious diseases and a member of the [Vaccine Center](#) at New York University Langone Health.

[Researchers](#) from the Netherlands took it a step further and looked at respiratory samples taken from vaccinated people with breakthrough infections and found that the virus in their noses was less likely to be infectious compared to unvaccinated people who got COVID. Still, infectious virus was detected in 68% of the vaccinated participants (compared with 85% of unvaccinated participants).

more likely to be asymptomatic, and those who were symptomatic with breakthrough infections typically had fewer symptoms compared to unvaccinated people with COVID. This is another reason why vaccinated people are likely less contagious — if you're coughing less, you're not going to be generating as much aerosolized virus as someone who's coughing and blowing their nose a lot.

“The people who have worse symptoms — who are coughing more and who have more snot pouring out of their nose — are more contagious just on the basis of that,” Ratner said.

While it's generally agreed upon that vaccinated people, on average, are less contagious overall and for a shorter period of time, it's still unclear how contagious people are at any given point in their infection. It is widely believed that some vaccinated people with COVID [will be very contagious](#) whereas those who are asymptomatic [probably won't shed much virus](#) at all.

“If you're symptomatic and you have a breakthrough, I do think that you're able to transmit,” Gandhi said. Ultimately, just how long any given person is contagious seems to depend on various factors, such as their immune response and the severity of symptoms.

What's the best course of action?

The Centers for Disease Control and Prevention still advises that anyone who tests positive for COVID-19, regardless of whether they've been vaccinated or are symptomatic, should isolate for 10 days. Ratner said that until there's more concrete

virus for, the most prudent thing is to adhere to the 10-day isolation rule.

A growing number of infectious diseases specialists are recommending that vaccinated people avoid taking additional PCR tests once symptoms pass. PCR tests are so sensitive that they can pick up on [super low viral loads](#) (that likely wouldn't be contagious) and potentially dead bits of virus. This is different from guidance about determining if you have an infection at the onset of symptoms or after an exposure; [experts say a PCR is still the gold standard there](#).

After you recover from a breakthrough illness, Gandhi suggested skipping the PCR test and taking a rapid antigen test instead. Rapid antigen tests aren't so good at detecting small traces of virus but are useful at identifying high viral loads that indicate a person is pretty contagious.

“Wait until symptoms pass, take a rapid antigen test — and when it's negative, you can go out again,” Gandhi said.

Experts are still learning about COVID-19. The information in this story is what was known or available as of publication, but guidance can change as scientists discover more about the virus. Please [check the Centers for Disease Control and Prevention](#) for the most updated recommendations.

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