

COVID-19 testing: When to test, how accurate are home tests and more

December 28, 2021 Written By Emily Landon, MD

As new variants of COVID-19 Omicron spreads across the country, we're seeing increases in infections, even among people who've been fully vaccinated and have what are called breakthrough infections. As case counts surge, so does demand for testing. As an infectious diseases expert and a hospital epidemiologist, here's what you should know about when to get a COVID-19 test, what kind you should use, what to do if you can't get one at all and why it's still important to get vaccinated and boosted.

Q: When should I get a COVID-19 test?

Isolate and get a COVID-19 test if you have ANY symptoms of COVID-19, even if they're mild and even if you're fully vaccinated and/or boosted. Symptoms may include sniffles, congestion or a cough, and might resemble a mild cold, especially in fully vaccinated and boosted people. Even if you have minor symptoms, you are still contagious. People who are unvaccinated or immunocompromised may still get severe disease. Stay isolated if you have any symptoms, even if you cannot quickly get a COVID-19 test.

Q: How are rapid antigen tests different from PCR tests? Is one better than another?

Rapid antigen tests, which you can buy in most pharmacies, are great in specific circumstances and less good in others. Rapid antigen tests detect COVID-19 when people have a higher amount of virus particles in their system and are more contagious. But a negative antigen test doesn't

necessarily mean you aren't contagious. That's why if someone has COVID-19, but hasn't yet reached the test's threshold of viral particles, they may still test negative with an antigen test but positive on a polymerase chain reaction (PCR) test. That's why I tell people they should trust a positive antigen test, but be more skeptical about a negative one.

PCR tests are far more sensitive than antigen tests. They're able to detect smaller quantities of the virus and detect them sooner (and for more time) than antigen tests. While they're considered the gold standard for a COVID-19 diagnosis, PCR tests are unnecessary for those who have already tested positive on an antigen test. That's important to know as wait times for PCR tests grow due to increased demand. In short: any positive test (PCR or antigen) counts as a positive, but a negative antigen test needs to be confirmed with a PCR test.

Q: When should I use an at-home test?

A rapid, at-home antigen test is a useful tool to have in your COVID-19 arsenal. But you need to know when and how to use these tests.

If you have symptoms:

If you have COVID-19 symptoms and test positive on an at-home test, you have COVID-19. You don't need to get another test to confirm the results. But if you have symptoms and you test negative, you should not rule out COVID-19 just yet. In this case, we recommend getting a more sensitive PCR test. If you can't get in for a PCR test quickly, it's recommended to repeat the antigen test the following day, being sure to isolate until you get your PCR test and results. If you can't get a PCR test at all, isolate for 10 days.

If you don't have symptoms:

For those without COVID-19 symptoms, using these tests before a gathering will reduce (but not eliminate) the risk that someone attending has COVID-19. Remember: antigen test results can change quickly and a negative result is really only trustworthy for eight to 12 hours.

In other words, you shouldn't rely on a negative test in the morning if you want to get together in the evening with friends or family. Make sure everyone who's attending an event uses an at-home test as close as possible to the time they're gathering and understands that a negative test doesn't guarantee safety or completely prevent exposure. If you've had a known COVID-19 exposure, no test is going to make it safe for you to gather unmasked with high-risk individuals. Stay home.

Q: How do I interpret at-home tests?

If you're taking an at-home COVID-19 test, consider any positive result to mean you have COVID-19. You don't need to confirm with a PCR test. (Even if it's an extremely faint line, you should consider yourself infected and isolate.) If you're unclear about what your test result says, isolate and repeat the test in six to 12 hours. You'll likely see a clearer line on the test strip next time.

Don't forget: a negative at-home test is only reliable for eight to 12 hours and still doesn't guarantee you're COVID-free. You should get a PCR test if you have symptoms.

Q: What should I do if I can't get a COVID-19 test?

Given the widespread transmission of the Omicron variants, you should assume you are infected with COVID-19 if you have symptoms, regardless of your vaccination status. Isolate for the amount of time that's recommended by the health department.

If you've been exposed, but have no symptoms AND you are fully vaccinated and boosted, you don't need to quarantine. But you should get a COVID-19 test on Day 4, 5, or 6 following your exposure. (For example, if you learn you were exposed on Monday, you should get tested on the Thursday, Friday or Saturday.) If you develop symptoms, assume you're infected and begin isolation.

If you've been exposed and are vaccinated but not boosted, you need to quarantine for five days after an exposure and wear masks for another five days after that. You are still at high risk of infection, especially from the quickly spreading Omicron variant. You should wear a mask around other people and get tested four to six days after the exposure and anytime you develop symptoms. Avoid gatherings and do your best to limit contact with people who are immunocompromised or who are unvaccinated.

If you've been exposed, have no symptoms, but are NOT vaccinated, stay home and quarantine for five days. You'll need to wear a mask for another five days after that.

Q: I'm vaccinated and boosted. Why did I still get COVID-19?

COVID-19 vaccines and boosters are hugely valuable. In addition to providing protection from the virus, vaccines and boosters reduce the

chances of serious illness, hospitalization and death. But people can still get infected when they're fully vaccinated and boosted. This may be because the vaccine's protection has decreased over time or because a new variant (like the Omicron variant) is better at getting around the vaccine's protective properties.

COVID-19 infections in fully vaccinated people are called breakthrough infections, which usually result in milder symptoms versus infections in the unvaccinated. Your body's memory B cells and T cells, which developed after your vaccine, respond quickly to stop the infection and prevent severe damage. Immunocompromised people may not have strong B cell- and T cell-immunity even after vaccination, so they remain at higher risk. If you are immunocompromised and have a breakthrough infection, you should contact your doctor even if you only have mild symptoms.

Unvaccinated people don't have existing antibodies or memory B cells or T cells waiting to fight off COVID-19, so they have to start their immune response from scratch if they become infected. Infections typically cause more damage to their organs and tissues, which can lead to complications like having low oxygen levels, as well as problems with the lungs, kidney and heart. Unvaccinated individuals are also much more likely to need intensive care support or have lingering symptoms known as long COVID-19.

Q: If I have a breakthrough infection after my COVID-19 vaccine, will I still be contagious for the same amount of time?

There's a good amount of evidence showing most fully vaccinated and boosted people with breakthrough infections are both less contagious and contagious for a shorter time. They're also more likely to get mild infections. This was recently supported by the Centers for Disease Control & Prevent, which changed its isolation guidelines for asymptomatic breakthrough infections.

Q: Can I report my positive at-home test results to public health officials?

At-home antigen test results are not typically reported to public health agencies nor are they usually included in official case tallies. This means statistics are significantly under-reported. In some communities, local health departments are setting up portals for people to self-report at-home results, but you'll need to check to see what's available in your area. The most important thing to do is stay home and isolate. If you have certain health conditions — especially if you're immunocompromised — contact your doctor ASAP so they are aware of your diagnosis.

Q: When can I get the new medicine that's received emergency use authorization to fight or prevent COVID-19?

The good news is that new antiviral medication and a preventative monoclonal antibody treatment have received emergency use authorization from the U.S. Food & Drug Administration. They are very important resources for doctors and high-risk patients. If you are a transplant recipient, have a primary immunodeficiency, take immunosuppressive medication or are undergoing active chemotherapy and you test positive for COVID-19, you should contact your doctor, immediately. They are currently available at pharmacies. A prescription from your Dpctor is necessary

Q: Do COVID-19 booster shots offer added protection against the Omicron variant?

A: Boosters offer the best protection from catching Covid, but they aren't perfect. Scientists are still gathering data on the effectiveness of vaccines against Omicron, but existing data show people who are vaccinated and boosted have additional protection and are less likely to be hospitalized than those who are unvaccinated. Read more about booster shots and third doses here: [What to know about booster shots and third doses of the COVID-19 vaccine.](#)

Please note that the flu is now spreading in our community too. If you have a negative COVID test but have moderate symptoms, including fever and body aches, contact your primary care provider's office. They may test you for the flu or give you a medication for the flu, especially if you are in one of the high-risk groups listed above.

More information will be provided as it becomes available. Please continue to take [precautions](#) to keep yourself and others safe.