



## COVID-19 Testing FAQs

### What is a PCR test, and how is it used?

A PCR or “polymerase chain reaction” test for COVID-19 is a type of medical test that looks for genetic material from SARS-CoV-2, the virus that causes COVID-19. Sometimes, it is referred to as an RT-PCR test (reverse transcription PCR). PCR and other tests that detect viral genetic material are together referred to as nucleic-acid amplification tests (NAATs), or sometimes just called molecular tests.

With a laboratory-based NAAT, such as PCR, a sample is sent to a lab, and it may take anywhere from 24-72 hours to get the result. There are also point-of-care NAATs (e.g. CUE, Accula, “rapid PCRs”, Abbott IDNow), where the sample is processed at a doctor’s office or a testing site, and results are returned quickly. In general, laboratory-based NAATs are more accurate than both point-of-care NAATs and antigen tests.

### What is an antigen (Ag) test, and how is it used?

An antigen test looks for proteins from SARS-CoV-2, the virus that causes COVID-19. Results are usually available in 15 minutes. Antigen tests are less sensitive than PCR tests, which means they may not identify every person who is infected. Because of this, antigen tests are often used twice weekly when testing people without symptoms (e.g., screening/surveillance testing or modified quarantine). Depending on the situation, an antigen test *may* need to be confirmed by a molecular test (e.g. PCR):

- In people **with symptoms**, a positive antigen test does not need to be confirmed. A negative result **SHOULD** be confirmed by molecular test if symptoms include the loss of taste or smell, or a healthcare provider has a high suspicion for COVID-19. Any negative HOME antigen test should be confirmed using a monitored antigen or molecular test, depending on whether the person falls into one of the categories above.
- In people **without symptoms**, antigen tests do not need to be confirmed.

### What is an antibody test, and how is it used?

Antibodies are produced by your immune system when you have an infection, such as a cold or COVID-19. Antibodies can help your body fight off future infections more easily. A SARS-CoV-2 antibody test looks for evidence of a *previous* COVID-19 infection. **It is not the correct test to diagnose a *current* infection.** A person with a current COVID-19 infection can have a negative antibody test, because their body hasn’t had time to produce antibodies yet.

### When should someone be re-tested?

***Re-testing with PCR or another NAAT after a positive PCR to confirm infection or to see if someone has cleared infection is NOT recommended, as this may give confusing or misleading results.***

Re-testing is only recommended in specific situations. The following scenarios help demonstrate how re-testing should be used:

Scenario 1: Positive PCR test in a person *with or without* symptoms: **Do NOT re-test.** The initial positive result will be used to guide isolation and quarantine decisions.

Scenario 2: Negative PCR test in a person *with* symptoms: **Do NOT re-test.** This result indicates that the symptoms are most likely due to another illness besides COVID-19.



Scenario 3: Positive antigen test in a person *without* symptoms: **Do NOT re-test.**

Scenario 4: Negative antigen test in a person *with* symptoms:

- **A negative result should be confirmed by molecular test if symptoms include the loss of taste or smell, or a healthcare provider has a high suspicion for COVID-19.**
- Any negative HOME antigen test should be confirmed using a monitored antigen or molecular test, depending on whether the person falls into one of the categories above.

Scenario 5: Positive antigen test in a person *with* symptoms: **Do NOT re-test.**

### Can home antigen tests be used?

Home antigen tests can be used for screening testing in asymptomatic persons and to diagnose infection in people with symptoms of COVID-19. They should not be used for testing during quarantine.

**A negative home antigen result in a person with symptoms should be confirmed.** In general, the re-test can be a monitored antigen test or a molecular test. If symptoms include the loss of taste or smell or a healthcare provider has a high suspicion for COVID-19, a molecular test should be used.

### Why do test results sometimes disagree?

There are several reasons why someone can be tested more than once and get different results. For example, when a person has been infected with SARS-CoV-2, the amount of virus in their nose and throat can go up and down over time. Because of this, a test collected on two different days during COVID-19 infection may show different results. If specimens are collected using different techniques or if different labs are used, this can also cause inconsistent test results, even when infection is present. **False positive lab-based NAAT (e.g. PCR) results are unlikely.** So, if someone has a positive lab-based PCR test followed by a negative one, the initial positive result will be used to guide isolation and quarantine decisions.

PCR and other NAATs, especially lab-based tests, are more sensitive than antigen tests, meaning they are more likely to detect infections that an antigen test may miss, especially in people without symptoms. **When there is a mix of positive and negative antigen and PCR results, a positive PCR result will be used to guide isolation and quarantine decisions.**

### What type of test does a student with symptoms need before returning to school?

Schools can accept antigen and molecular tests from a student with symptoms in most cases, although a laboratory-based NAAT (e.g. PCR) is preferred. A negative molecular (e.g. PCR) test is recommended if symptoms include the loss of taste or smell OR a healthcare provider has a high suspicion for COVID-19.

In addition to a negative test, students must be fever-free for at least 24 hours without the aid of fever-reducing medicines, such as Motrin, to return to school. It is also important that symptoms have started to improve before returning. It is difficult to mask correctly with a cough, and masks are less effective when wet, such as when a student has a runny nose.

### Don't some people have positive PCR tests even after they have recovered from COVID-19?

COVID-19 PCR tests and other NAATs can detect very small amounts of leftover virus. This means that these tests may be positive after someone has recovered from illness and is no longer infectious. When there are no symptoms of COVID-19 illness and no history of exposure, it can be difficult to determine exactly when someone became infected and when they have recovered. When there is a positive PCR test in someone without recent



COVID-19 symptoms (or a previous positive test), it is considered a new infection and the person should isolate for 10 days.

**What if I was sick weeks or months ago and never got tested?**

COVID-19 symptoms, especially when mild, are similar to the symptoms of many other common illnesses including colds, the flu and even seasonal allergies. It can be difficult to determine whether past symptoms were due to COVID-19. For this reason, when there is a new positive test, only current symptoms are considered when making decisions about isolation and quarantine.

**My doctor looked at my test results and said I don't have COVID-19.**

Individual health care providers may occasionally interpret COVID-19 test results for a single individual differently from the standards established by local, state and national public health authorities. However, COVID-19 public health decisions based on these standards reflect the need to protect many people in our communities from the spread of the virus and are based on the best available evidence collected throughout the pandemic. Decisions about isolation and quarantine are guided by the test results.

**Does "Day 5 or after" refer to the day the test was taken OR the day the result was received?**

It refers to the day the sample was collected/test was taken.