

# Accepted Types of COVID-19 Tests

King County endorses any FDA approved COVID test including those that have Emergency Use Authorization (EUA) approval. There are two categories of COVID-19 tests that are FDA/EUA approved for detecting COVID-19: **Molecular tests** and **Antigen tests**. Both tests most commonly use a nasal swab to detect the presence or absence of COVID-19.

Public Health does not endorse the use of **antibody tests** to diagnose current infection, in accordance with [current CDC guidance](#).

	<b>Molecular test</b>	<b>Antigen test (Ag)</b>
<b>What else is it called?</b>	<ul style="list-style-type: none"> <li>• NAAT (Nucleic Acid Amplification Test)</li> <li>• Laboratory-confirmed test</li> <li>• PCR (Polymerase Chain Reaction)</li> <li>• TMA (Transcription Mediated Amplification)</li> </ul>	<ul style="list-style-type: none"> <li>• Rapid test</li> <li>• At-home</li> <li>• Self-collected</li> <li>• Self-test</li> <li>• Self-collection kit</li> <li>• Point of care tests (POC)</li> </ul>
<b>How does the test work?</b>	These tests amplify bits of genetic material (viral RNA) specific to SARS-CoV-2 so that viral infection can be detected using a specialized test.	These tests detect structural features of the outside of the virus called antigens—small proteins that make up the virus—that may be present in a patient’s sample.
<b>Pros</b>	<ul style="list-style-type: none"> <li>• Is extremely sensitive (low limit of detection)</li> <li>• Hundreds of samples can be run at once</li> </ul>	<ul style="list-style-type: none"> <li>• Can detect active production of viral proteins</li> <li>• Results in 15-20 minutes</li> <li>• RNA extraction and amplification steps not needed</li> </ul>
<b>Cons</b>	Requires trained staff and special equipment. Takes longer to get results back from the laboratory, where tests need to be sent and analyzed. Can get a false positive if a person has recovered from COVID-19 and the test taken again within 90 days of infection because that test is so sensitive.	Less sensitive: may have false negatives if you took the test too early in your infection because not enough antigen (viral protein product) had built up in your body at time of testing or not enough virus replication was collected in the sampled area.
<b>When should I choose this type of test?</b>	<ul style="list-style-type: none"> <li>• Can use anytime, but not best option if you’ve had a COVID-19 infection in the past 90 days</li> <li>• To confirm results following a positive rapid antigen test when appropriate</li> </ul>	<ul style="list-style-type: none"> <li>• Within 7 days of exposure and/or having symptoms (this is when there is the most virus in the body so it allows the test to easily find the antigens on the virus)</li> <li>• If you have had COVID-19 in the past 90 days</li> </ul>
<b>Where do I get the test?</b>	<ul style="list-style-type: none"> <li>• At a COVID-19 testing site in King County or at a health care provider office or clinic</li> <li>• Some schools or employers</li> </ul>	<ul style="list-style-type: none"> <li>• Pharmacy or other retail</li> <li>• Some healthcare providers</li> <li>• Some schools or employers</li> </ul>
<b>How is the test done?</b>	By using a nasal swab	By using a nasal swab
<b>Who collects the test?</b>	A health care provider administers the test, or you collect the sample while a healthcare provider observes.	You may collect the sample yourself with an at-home test or it can be collected on site at a rapid test facility.

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<b>Does it cost money?</b>	No, it's free at King County testing sites, regardless of immigration or insurance status. Some schools or employers may also provide testing at no cost.	Yes, the at-home kits need to be purchased at a pharmacy or other retailer. There will also be a cost for the test if it is being done on site at a <a href="#">rapid test facility</a> . Some schools or employers may also provide test kits at no cost.
<b>Which type of test can be used for return to school or work?</b>	Any FDA-authorized molecular test/NAAT (PCR, TMA) is acceptable. Check with your school, employer or organization to see if they require a specific type of test.	Any FDA-authorized antigen test is acceptable. Check with your school, employer or organization to see if they require a specific type of test.

## Molecular (NAAT) tests

Molecular tests, also known as NAAT, multiply and detect the presence of COVID-19 virus genetic material. Examples of molecular tests are PCR and TMA. NAAT techniques such as PCR and TMA are both sensitive and specific for detecting the presence of SARS-CoV-2 in a sample. Once taken, the tests are sent to a laboratory and analyzed to detect COVID-19. Test results for molecular tests have a turnaround time of 1-3 days. PCR/NAAT/TMA tests are effective at detecting a current infection. People who have tested positive for COVID-19 and recovered can continue to have detectable COVID-19 virus genetic material even if they are not infectious. Therefore, it is not recommended to test again with PCR/TMA within 90 days.

## Antigen tests

Antigen tests (Ag) detects pieces of protein fragments on the surface of the virus. Ag tests, also referred to as rapid tests and/or point of care tests (POC), take approximately 15-20 minutes to complete and are taken and interpreted outside of a laboratory. Ag tests are "less sensitive" than PCR/NAAT tests. This means that antigen tests are more likely to have a "false negative and "false positive" results and may need a follow-up PCR test for confirmation.

Examples of FDA/EUA approved antigen tests that are available to the public for purchase are BinaxNOW, Carestart and B.D. Veritor. There are also facilities that [provide rapid testing on site](#). Ag tests are best suited to testing when within seven days of exposure and/or symptoms but can be used outside of this scenario. During the seven-day period, there is a lot of virus in the system allowing the tests to easily find the markers on the virus.

## Considerations when implementing a testing strategy

- Fully vaccinated people can use either a PCR or TMA or Ag test
- Organizations should create their own testing policies. King County endorses any FDA-authorized test to use for return to school, work, or other organizations, including antigen/rapid tests, and molecular diagnostic tests such as PCR, TMA, and other NAAT tests.

- Public Health does not endorse the use of antibody tests to diagnose current infection, in accordance with [current CDC guidance](#).
- People who have recovered from COVID-19 within 90 days of their positive date could benefit from taking an Ag test over a PCR or TMA test. A PCR or TMA test is sensitive enough to pick up genetic material up to 90 days post infection and thus potentially resulting in an inaccurate result.
- If there is concern for a false positive or negative using Ag testing, a confirmation PCR or TMA test can be used within 48 hours of the original test. A second option is to repeat Ag testing within 48 hours but more than 24-hours post original test.
- If someone tests positive with a PCR or TMA test, Public Health - Seattle & King County does not recommend additional testing.

## Implications of false positives and negatives

Any test can produce false positives and false negatives.

- A false positive test result can cause unnecessary isolation, missed school/work, canceled activities and more.
- A false negative test result includes delayed or lack of supportive treatment, lack of monitoring of infected individuals and their household or other close contacts for symptoms resulting in increased risk of spread of COVID-19 within the community, or other unintended adverse events.

## Where to get tested

COVID-19 tests can be scheduled with a health care provider. If you do not have a health care provider, there are free testing sites located throughout Seattle and King County that prioritize service to marginalized populations, those with symptoms and those who are contacts to known or suspected COVID-19. Find a testing location at [kingcounty.gov/covid/testing](https://kingcounty.gov/covid/testing).

Advance appointments are **strongly recommended** to avoid long wait times. Masks are required at both indoor and outdoor testing sites.