

# COVID-19 Testing Overview

TEST TYPE	COLLECTION METHOD	PROS	CONS	AVAILABILITY	RECOMMENDED POPULATIONS TO BE TESTED	COST	EXAMPLES OF TESTS
<b>Molecular (PCR):</b> <i>Individual Lab</i>	<ul style="list-style-type: none"> <li>Nasopharyngeal swab</li> <li>Nasal swab</li> <li>Oropharyngeal (back of throat) swab</li> <li>Saliva</li> </ul>	<ul style="list-style-type: none"> <li>The most accurate diagnostic test currently available</li> </ul>	<ul style="list-style-type: none"> <li>It can take several days for patients to receive results</li> <li>Higher price point than other testing options</li> </ul>	<ul style="list-style-type: none"> <li>Widely available to the general public</li> <li>Available at Atrium Health PCPs, Urgent Cares and through Employer Solutions</li> </ul>	<ul style="list-style-type: none"> <li>Symptomatic patients</li> <li>Asymptomatic patients (with medical recommendation)</li> <li>People from historically marginalized populations who have been disproportionately impacted by COVID-19</li> <li>People who are at higher risk for severe illness</li> </ul>	\$\$\$	<ul style="list-style-type: none"> <li>Roche Cobas SARS-CoV2</li> <li>Luminex NxTAG CoV Extended Panel Assay</li> <li>Abbott m2000 Real-Time SARS-CoV-2</li> <li>DiaSorin Molecular Simplexa COVID-19 direct assay</li> </ul>
<b>Molecular (PCR):</b> <i>Individual Rapid</i>	<ul style="list-style-type: none"> <li>Nasopharyngeal swab</li> <li>Nasal swab</li> </ul>	<ul style="list-style-type: none"> <li>The most accurate diagnostic test currently available</li> <li>Tests can be processed in &lt;1 hr</li> <li>Doesn't require a lab</li> </ul>	<ul style="list-style-type: none"> <li>Higher price point than other testing options</li> </ul>	<ul style="list-style-type: none"> <li>Very limited availability at Atrium Health; reagents are in short supply</li> </ul>	<ul style="list-style-type: none"> <li>Symptomatic patients</li> <li>Asymptomatic patients (with medical recommendation)</li> <li>Triaging individuals with respiratory symptoms in an Emergency Department or similar setting</li> <li>Correctional facilities, long-term care facilities or other high risk, congregate settings where active cases have been confirmed and are part of an outbreak investigation</li> </ul>	\$\$\$	<ul style="list-style-type: none"> <li>Cepheid Xpert Xpress SARS-CoV-2</li> <li>Mesa Accula SARS - CoV2 test</li> </ul>
<b>Molecular (NEAR):</b> <i>Individual Rapid</i>	<ul style="list-style-type: none"> <li>Nasopharyngeal swab</li> <li>Nasal swab</li> <li>Oropharyngeal (back of throat) swab</li> </ul>	<ul style="list-style-type: none"> <li>Ultra-fast test results within 5-15 mins</li> <li>The ID NOW machine also has the ability to test for flu</li> <li>Doesn't require a lab</li> </ul>	<ul style="list-style-type: none"> <li>Possibility of false negative test results</li> </ul>	<ul style="list-style-type: none"> <li>Widely available to the general public</li> <li>Soon to be available at Atrium Health PCPs, Urgent Cares and through Employer Solutions</li> </ul>	<ul style="list-style-type: none"> <li>Symptomatic patients</li> </ul>	\$\$	<ul style="list-style-type: none"> <li>Abbott ID NOW COVID-19 test</li> </ul>
<b>Antigen:</b> <i>Individual Rapid</i>	<ul style="list-style-type: none"> <li>Nasopharyngeal swab</li> <li>Nasal swab</li> </ul>	<ul style="list-style-type: none"> <li>Test results are provided in &lt;20 mins</li> <li>Doesn't require a lab</li> <li>Relatively inexpensive</li> </ul>	<ul style="list-style-type: none"> <li>Higher chance of false negative and false positive test results</li> <li>Not recommended for asymptomatic testing, population-based surveillance studies, or the screening of health-care workers, emergency responders, and other essential personnel</li> </ul>	<ul style="list-style-type: none"> <li>Not widely available to the general public</li> <li>Not currently available at Atrium Health</li> </ul>	<ul style="list-style-type: none"> <li>Symptomatic patients</li> <li>Triaging individuals with respiratory symptoms in an Emergency Department or similar setting</li> <li>Off hour testing in hospital settings when the patient will benefit from a rapid result and the lab will repeat the test by another method when available</li> <li>Correctional facilities, long-term care facilities or other high risk, congregate settings where active cases have been confirmed and are part of an outbreak investigation</li> </ul>	\$	<ul style="list-style-type: none"> <li>Abbott BinaxNOW COVID-19 Ag Card</li> <li>Quidel Sofia 2 SARS Antigen FIA</li> <li>LumiraDx SARS-CoV-2 Ag Test</li> <li>BD BD Veritor System</li> </ul>

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TEST TYPE	COLLECTION METHOD	PROS	CONS	AVAILABILITY	RECOMMENDED POPULATIONS TO BE TESTED	COST	EXAMPLES OF TESTS
<b>Serologic:</b> <i>Individual Lab</i>	•Blood draw	•Specimen collection is invasive	•Not recommended to diagnose a current COVID-19 infection	•Widely available to the general public •Available at Atrium Health PCPs, Urgent Cares and through Employer Solutions	•People with a history of COVID-like illness •Children with suspected Multisystem Inflammatory Syndrome (MIS-C) •People who have taken a molecular test and continue to present symptoms of COVID-19 9-14 days after when symptoms start •To identify potential convalescent donors (serum donors)	\$\$	•Abbott Alinity i SARS-CoV-2 IgG •Roche Elecsys Anti-SARS-CoV-2 Cobas
<b>Serologic:</b> <i>Individual Rapid</i>	•Fingerstick blood draw	•Test results are provided in <20 mins •Less invasive fingerstick collection method as compared to the serologic lab test •Doesn't require a lab	•Not recommended to diagnose a current COVID-19 infection	•Not widely available to the general public •Not currently available at Atrium Health	•People with a history of COVID-like illness •People participating in research studies	\$\$	•Assure Tech Assure COVID-19 IgG/IgM

### Abbreviations

**NEAR:** nicking endonuclease amplification reaction

**PCR:** polymerase chain reaction

Current as of November 2, 2020