





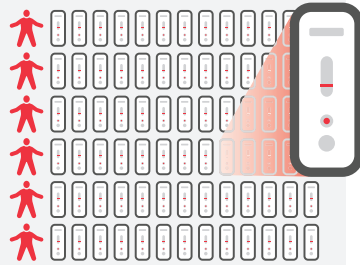
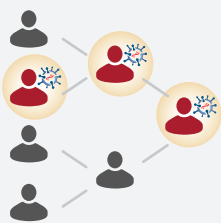


# Tools for testing—RT-PCR vs. rapid antigen detection test (RADT)

	Head-to-head comparison	
	RT-PCR (detects RNA) 	RADT (detects viral proteins) 
	In a study reported by the CDC, ~3,400 samples were collected and analyzed via RADT, and the results were verified through RT-PCR. The results from the sensitivity studies are outlined below [1].	
<b>Sensitivity</b>	<ul style="list-style-type: none"> <li>• <b>&gt;99%</b> sensitivity on all cases</li> <li>• Superior accuracy</li> </ul> 	<p><b>Symptomatic cases</b></p> <ul style="list-style-type: none"> <li>• ~2 in 5 positive cases receive negative result</li> <li>• Average sensitivity: <b>64%</b></li> </ul>  <p><b>Asymptomatic cases</b></p> <ul style="list-style-type: none"> <li>• ~3 in 5 positive cases receive negative result</li> <li>• Average sensitivity: <b>36%</b></li> </ul>  <p>Due to poor sensitivity, multiple tests and/or confirmation through RT-PCR are recommended [1]</p>
<b>Scalability</b>	<p>An RT-PCR instrument is capable of running thousands of samples per day.</p> 	<p>RADT requires significant hands-on time for trained operators to administer and interpret results, as each test requires its individual test kit. Therefore, to run a large number of samples, many test kits and personnel are needed.</p> 
<b>Turnaround time</b>	<b>~24 hours</b>	<b>15–30 minutes</b>
	 <p>Through community testing efforts, you can <b>isolate</b> and <b>quarantine</b> individuals to help keep people safe.</p>	<p><b>Be informed about the different tests available, and when each is appropriate. For the latest CDC guidelines, please refer to:</b>  <a href="https://cdc.gov/coronavirus/2019-ncov/testing/diagnostic-testing.html">cdc.gov/coronavirus/2019-ncov/testing/diagnostic-testing.html</a>  <a href="https://cdc.gov/coronavirus/2019-ncov/lab/resources/antigen-tests-guidelines.html">cdc.gov/coronavirus/2019-ncov/lab/resources/antigen-tests-guidelines.html</a></p> <p><b>Reference</b>            [1] Prince-Guerra JL, Almendares O, Nolen LD, et al. Evaluation of Abbott BinaxNOW Rapid Antigen Test for SARS-CoV-2 Infection at Two Community-Based Testing Sites — Pima County, Arizona, November 3–17, 2020. <a href="https://cdc.gov/mmwr/volumes/70/wr/mm7003e3.htm">cdc.gov/mmwr/volumes/70/wr/mm7003e3.htm</a></p>

To learn more, download our free guide to asymptomatic population testing at [thermofisher.com/testingguide](https://thermofisher.com/testingguide)

