

A look at Singapore's arsenal of Covid-19 tests

Testing for the coronavirus is an important part of the nation's strategy to gradually reopen its economy. Timothy Goh looks at three of the tests used here, and how they measure up.

	Polymerase chain reaction tests	Antigen rapid tests	Breath tests
How people are tested	A swab is either inserted all the way to the back of each nostril, or midway up each nostril and to the back of the throat, and twirled	A swab is inserted around 2.5cm up each nostril and twirled	A person breathes into a tube that is connected to a specialised machine
What it detects	Genetic sequences of Covid-19	Proteins on the surface of the virus called antigens	Particles known as volatile organic compounds, produced by biochemical reactions in human cells
How soon people can get their results	A few days	Around 15 to 30 minutes	One minute or less
How specific and sensitive the test is*	Sensitivity rate: >93% Specificity rate: >95%	Sensitivity rate: 82% Specificity rate: 99%	Sensitivity rate: 93% Specificity rate: 95%
How much it costs**	Up to \$200	Unknown; still undergoing trials	Estimated at around \$27
Status	The "gold standard" of testing and the default test used here	Currently being used for pilots in pre-event testing	Clinical trial ongoing at NCID; plans to have more tests in public places

NOTE: *Sensitivity is the test's ability to identify those infected as positive, while specificity is the ability to identify those not infected as negative. The rates here are estimates and may differ between different test brands.

**These are rough estimates. Costs are in SGD and differ based on factors such as logistics, manpower and economies of scale.