# Understanding COVID-19 Testing


## Testing for the virus

**Sample collection:** A swab is taken from the inside of the nose or back of the throat.

**Processing:** Molecular tests detect whether there is genetic material from the virus.

### Positive test result

**True positive:** You are currently infected. Almost all positive results are true positives.

**False positive:** You are not infected, but test positive (very rare).

### Negative test result

**True negative:** You are not currently infected. There is no risk of infecting others.

**False negative:** You are infected, but test negative. Can happen when the test is done too early to detect the disease or when sample collection is poor.

**Positive test result:** individual isolates.

**False negative test result:** unaware of their infection and could infect others.

## Testing accuracy depends on when you get tested

Test accuracy based on a 5-day incubation period from exposure to symptoms.

### Initial exposure

- Days 0-2: very low virus
- Worst days to test
- Approximately 98% not detected
- Those tested too early will be unaware of infection and may infect others

### Incubating

- Days 0 to 5: virus multiplying
- Approximately 50% not detected
- Up to half of those tested will get a false negative result and may infect others

### Symptoms

- Day 5 or more: virus plentiful
- Approximately 10% not detected
- Low false negative rate

### Recovering

- Day 15 or more: virus decreasing
- May take longer to recover from severe disease
- May not be infectious to others

## Testing for antibodies

A blood test detects antibodies to the virus that usually start to appear when a person is recovering.
This blood test is not used to diagnose active COVID-19.
Research is underway to find out whether antibodies protect you from future infections.

### Resources

Adapted from: Public Health Agency of Canada (2020) Understanding COVID-19 Testing Accessed at: https://www.canada.ca/en/public-health/services/publications/diseases-conditions/understanding-covid-19-testing.html