



## FAQs about COVID-19 RT-PCR Ct Values

### What is a Real-Time Polymerase Chain Reaction (RT-PCR)?

One of the most common ways to detect SARS-Cov-2, the virus that causes COVID-19, is a test called Real-Time Polymerase Chain Reaction (RT-PCR). RT-PCR is a method that amplifies SARS-CoV-2 genetic material in a sample to a level that is detectable using multiple rounds of copying. It is called real time because the method generates a fluorescent signal while the genetic material is being copied.

### What is a Ct Value?

A Ct value is a number that signifies how many rounds of copying are needed to get a detectable amount of SARS-Cov-2 genetic material.

### Do all COVID-19 tests generate a Ct Value?

No. Not all COVID-19 tests that have been authorized for the detection of SARS-CoV-2 utilize RT-PCR. If a test uses other nucleic acid amplification methods, then no Ct value will be generated. Furthermore, all COVID-19 tests that have been authorized by the FDA are qualitative tests. This means that the test is reported as either “positive” or “negative”. Several authorized COVID-19 RT-PCR tests are automated, so the laboratory does not know what the Ct value is, just the results are reported based upon the analysis method.

### Can a Ct Value determine how infectious a person is?

No. The Ct value is used to determine if a patient specimen contains sufficient SARS-CoV-2 genetic material to generate a test result. The test result is only intended to confirm or rule out a COVID-19 diagnosis at the time of specimen collection.

### Are all Ct Values comparable?

No. Ct values are method specific and not directly comparable between different tests. Even though the Ct value is a number, its intended use is to make a qualitative determination for a COVID-19 test.

### Additional Information

For additional information about Ct values and COVID-19 test interpretation, please refer to guidance from the CDC <https://www.cdc.gov/coronavirus/2019-ncov/lab/faqs.html#Interpreting-Results-of-Diagnostic-Tests> and the Association of Public Health Laboratories <https://www.aphl.org/programs/preparedness/Crisis-Management/Documents/APHL-COVID19-Ct-Values.pdf>