



Arkansas Department of Health

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How to Use COVID-19 testing

Incubation Period of SARS COV 2: The typical incubation period for COVID-19 is five or six days, but it can range from one to fourteen days with approximately ten percent of cases taking longer than average.

Viral Tests: PCR tests and antigen tests are considered as viral tests

Point of Care (POC) Testing: Abbott ID Now is a PCR test which can be used as POC, Quidel Sofia and BD Veritor are antigen tests which can be used similarly

Methods of SARS COV 2 testing:

PCR Tests: PCR tests look for pieces of SARS-CoV-2, the virus that causes COVID-19, in the nose, throat, or other areas in the respiratory tract to determine if the person has an active infection.

- **Advantage:** Highly sensitive, 100% specific, can pick up infection as early as day 3-5 after exposure
- **Disadvantage:** costly, longer turnaround time, needs qualified lab, may remain positive for several weeks because of high sensitivity

Antigen Tests: Antigen tests look for pieces of proteins that make up the SARS CoV-2 virus to determine if the person has an active infection.

- **Advantage:** >80% sensitive, 100% specific (compared to PCR), can pick up infection early, point of care, faster TAT, can be done in settings which operate under a CLIA certificate of waiver
- **Disadvantage:** false negatives can be a problem, PCR test may be needed for confirmation of a negative test result

Antibody (Serology Tests): Serology looks for antibodies¹ against SARS-CoV-2 in the blood to determine if there was a past infection.

- **Disadvantage:** IgM tests perform poorly, IgG tests have high negative predictive values but variable positive predictive values (45-90%), cannot be used for diagnosis, antibody response may be blunted in ages>65 years, may cross react with non SARS CoV coronaviruses

Guidance for Selection of Test Type

Symptomatic Persons

- Use PCR/antigen tests as soon as symptoms noted. Rapid tests perform well in symptomatic patients. Symptoms include fever, sore throat, cough, headaches, body aches, loss of smell and taste etc. We do not recommend using antigen tests in asymptomatic persons.

Asymptomatic/Presymptomatic Contacts

- PCR testing should be preferred if available; should ideally be done between day 5-8 following exposure
- We do not know how antigen tests perform in asymptomatic/presymptomatic cases
- If viral testing capacity is limited, suggest first directing testing to patients with symptoms and household member and other close contacts of positive case