

Mayo Clinic expert answers questions about COVID-19 testing

16 April 2020, by From Mayo Clinic News Network



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There has been a lot of attention given to COVID-19 testing. Mayo Clinic Laboratories has developed two different kinds of tests: one to determine if someone is actively infected with COVID-19, and another to determine if someone recently had COVID-19 and now has antibodies against the SARS-CoV-2 virus.

In this Q&A, Dr. Gregory Poland, an infectious diseases expert and director of Mayo Clinic's Vaccine Research Group, answers questions about the two tests, who should take them, and how they will help scientists and researchers better understand this virus.

Q. What do people need to know about the two different COVID-19 tests?

A. One is meant to be diagnostic. This is where a swab is put up the nose or in the throat and then what's called a molecular <u>test</u>—an RT-PCR—is dor to determine if someone is infected with the virus. That doesn't work very early on in the infection; you have to wait a few days.

The second type of test is a serological test. This is a test to determine, after you've recovered, do I now have antibodies against that virus? What we don't know, and this is really important, is what level of antibody is protective and for how long.

Q. Why is it important for someone to have the serological test to see if they have antibodies?

A. The most important thing will be for us to figure out at what level of antibody we think someone is protected against reinfection or re-exposure. Once we know that, particularly on the health care side, you can redeploy health care workers with presumably no fear of them getting infected with that virus, not needing the same level of PPE (personal protective equipment) and being able to care for people, even very sick people.

Q. How will more testing help society start returning to normal, so to speak?

A. It definitely helps us reopen on the medical side. In other words, once we know what doctors, nurses, and other health care workers have in terms of an immunity status, we can redeploy them to see patients, using a much lower level of PPE and presumably without risk. Other sectors of the economy benefit in a similar way. In fact, interestingly enough, people have been talking about whether there should be an immunity card or passport, so that if you're a teacher and you have immunity, you can go back to teaching at school. If you're a school kid, you can go back to school. You can imagine that for every sector of the economy. In the private business sector, people who are immune can go back to work. You just keep broadening that out.

what's called a molecular <u>test</u>—an RT-PCR—is doneQ. What would you tell someone who believes they to determine if someone is infected with the virus. might need either COVID-19 test?

A. I think the prudent thing to do would be to contact your physician and determine what assays



they have available.

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APA citation: Mayo Clinic expert answers questions about COVID-19 testing (2020, April 16) retrieved 2 June 2022 from https://medicalxpress.com/news/2020-04-mayo-clinic-expert-covid-.html

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