



Lewis County Public Health & Social Services

Health Beat

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So what's all this I keep hearing about COVID-19 testing?

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Anyone who has paid any attention to the news about this new coronavirus, known as COVID-19, has seen report after report about testing – how many tested, how many positive, test kit shortages, and swamped testing labs. Let's look at what testing is and why it is such an important element in our fight against the COVID-19 pandemic.

Testing criteria

Laboratory testing is the only sure way to confirm if someone has become infected with COVID-19. The most expedient way to accurately get a sample for testing is with a nasal swab. The Centers for Disease Control and Prevention (CDC) has published guidelines for physicians to determine who should be tested.

The guidelines for testing mention the most common symptoms of a COVID-19 infection. These are fever and/or symptoms of acute respiratory illness (e.g., cough, difficulty breathing). In addition, physicians can use their judgment and first-hand knowledge of their patients to help determine if they should be tested.

Test process

Right now, all testing locally is done in a healthcare setting. Testing begins with collecting fluids from deep within the nasal cavity. A long swab is inserted into deepest part of the nose and twirled for 10 to 15 seconds to make sure a good sample is collected. The New England Journal of Medicine has created a short video to show how this is done. <https://youtu.be/DVJNWefmHjE>

The swab is removed, placed in a sterile vial in a special liquid, refrigerated to preserve it, then shipped in a temperature-controlled container to a lab.

Once a lab receives the specimen, the sample is removed from the vial, placed into a testing cartridge, then placed in a machine. The sample undergoes around 20 different chemical reactions to test for the virus. This takes about two hours to complete.

In general, a lab can turn around results in 48 to 72 hours, depending on how many specimen are in their queue. Including shipping, prep time, testing time, and the lab's capacity, it could take up to five days to get the results back. This time will slowly be decreasing as more labs start testing.

What testing tells us

This is a brand-new disease in human history. While we do know a lot about other coronaviruses, we don't know as much about this one. Anything testing can teach us will help us figure out how our bodies react to this infection. This helps us determine how to treat the infection and develop a vaccine.

Next, testing tells us how many people are sick in actual numbers, as a percentage of total numbers tested, and as a percentage of the total population of an area. Why is this important? It tells us the scope of the problem and helps us build trend lines. Testing tells us where the disease is and gives us insight into how it spreads. Trends tell us where it spreads, how many people are likely to be affected by future spread, what populations are being most affected, and other intelligence that helps us work toward containing the pandemic.

As time goes by and more tests are done, we get closer to finding the key to unlocking the mysteries of COVID-19. Thanks to modern science, we already know more about this coronavirus in just four months than we learned about previous pandemics in years or decades. Whatever the solution to this pandemic is, I am confident we will find it.

For current information on COVID-19 in Lewis County, follow @LCPHSS on Twitter, <https://www.facebook.com/lcphss/> and visit <https://lewiscountywa.gov/covid19/>.



Coronavirus test kit. Photo courtesy of CDC.

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