



COVID-19 testing is confusing. What you need to know now.

By Helene M. Epstein

The world's been turned upside down due to COVID-19. Any virus can be a complicated creature, especially when a new one pops up. And because medical experts are learning as they go, and sharing what they learn with the rest of us, it can sometimes feel like we're standing on shifting sands as the tide is rising.

It's also not easy to develop tests for a new virus while scientists are still studying the basics of how it's transmitted and what it does to our bodies. COVID-19 has been particularly difficult to nail down because it doesn't behave like other known coronaviruses. While they differ greatly in essential ways, from a patient's point-of-view there are similarities with HIV/AIDS in the 1980s. That was the last virus in the USA to receive the same level of concern and confusion, as it spread before we understood what it was, how it worked, how to test for it and treat it. Some of you may recall the misunderstandings, the anger, and the despair it caused. Today, AIDS is easy to diagnose and — while it isn't yet curable — we are clear on prevention and treatment.

Both will happen with COVID-19, and far more quickly than they did with HIV/AIDS. In fact, it's unprecedented how rapidly and successfully the world's medical communities have attacked the problem.

Which leaves us with a different issue, an overwhelming number of testing choices. The list of tests and manufacturers is proliferating. There are currently over [150 COVID-19 tests](#) made by different manufacturers with a [wide range of reliability and accuracy](#).

So, if you're concerned you might have COVID-19 or have been exposed to it, or you've been asked to get tested by your work or school, here are answers to your questions about how to get the right test and the correct diagnosis.

“Why do I need a COVID-19 test?”

Do you feel ill or worried you've been infected? Are you still symptom-free but learned you were exposed to someone recently diagnosed with COVID-19? Perhaps you want to confirm that you're not infected so you can return to school or work or visit a grandparent? Maybe — like many of us — you have some anxiety about the topic and need reassurance.

Start by knowing which of two broad categories of tests for COVID-19 you need:

1. **Diagnostic tests** are designed to tell you if you're actively infected or not. [



2. **Antibody/Serology Tests** check if you had COVID-19 in the past by checking for antibodies to the virus.

“Why are there over a hundred tests for COVID-19?”

It’s a bit like the Wild West out there. Originally, test development was tightly controlled by the government but their first diagnostic test wasn’t reliable. That’s why they opened the door to research labs who could prove that their test met the FDA’s standards.

Over a hundred companies rose to the challenge. There are tests covering each stage of COVID-19 (early or pre-infection, active, late, or resolved), using samples taken from various parts of your body (nose, throat, saliva, blood), and administered at a range of locations.

[Here is a list of tests](#) that have received the FDA’s temporary Emergency Use Authorization (EUA). While they haven’t been thoroughly evaluated yet for official FDA approval, they are more reliable than tests that haven’t earned the federal or state government’s approval. Be wary of tests offered by anyone who isn’t your doctor, hospital, or a public health center. There are also at-home tests that have received an EUA.

“I’m worried I have COVID-19. How do I decide which test to get?”

If you [think you have COVID-19](#), you need a diagnostic test. There are two kinds of diagnostic tests: molecular and antigen.

A [molecular diagnostic test](#) — also called a [PCR test](#) or viral test — is designed to identify the virus’ genetic material. Not all molecular tests are created equal. [Over 140 have been approved](#) for use by the FDA on an emergency use authorization (EUA) basis produced by over 100 different manufacturers. Chances are your test will be molecular.

There are four ways to collect samples for a molecular test: inside your nose (high/deep or mid-level), throat, or saliva. The high or deep-nasal swab test conducted by a lab technician is still the gold-standard for diagnosing COVID-19. It’s the most accurate but getting the results can take from 15 minutes to 10 days, depending on the specific test and how busy the lab is.

[Antigen diagnostic tests](#) look for specific proteins that coat the virus’ cells. They’re most effective at the height of the virus’ strength (when you’re the most ill) and can have rapid results. On the other hand, they can have a higher rate of false negatives which means you may have COVID-19 even if the test says you don’t. Some antigen tests are also [more likely to miss an active coronavirus infection](#) compared to molecular tests. That’s why they’re primarily used in a hospital



or emergency setting to confirm the status of admitted patients already suspected of suffering from COVID-19. There are only four antigen tests currently approved but new tests — which may be improved versions — are on the horizon for additional testing sites.

Choosing a Diagnostic Test.

Right now, there isn't one type of test with all four desirable features simultaneously: the highest accuracy, speed, and comfort, for free. However, as researchers continue to develop new and better tests, that may change. For now, here's a breakdown of your options.

If you have a regular doctor or healthcare practice, start there. You can be seen virtually (telehealth or video visit) or in-person. They'll prescribe a specific test and location that they've chosen or they will direct you where to get testing information. Plus, they will evaluate the results based on a clinical exam conducted in person, by phone, or video. There also may be fees that your insurance company should (at least partly) cover.

If **cost** is a concern, you can get tested by your state, county, or city. Those tests should be free and (mostly) reliable. Public health departments may offer you choices among the types of diagnostic tests. Ask which tests are available and free when you call to schedule. They'll also let you know if you need an appointment or a prescription. Most insurance companies will also cover the cost of tests if a doctor prescribes them as medically necessary.

If **accuracy** is most important, get the deep-nasal swab molecular test. You may have to wait for an appointment and you'll probably have to wait for results. The deep-nasal and the throat tests are less comfortable. As new tests are developed, accuracy may improve for the other methods.

If **speed** is most important, some urgent care centers and student health centers offer results while you wait. Ask if they have a fast deep-nasal swab test, which is currently the most reliable. They may offer the saliva (spit) test or antigen tests which can be fast and easy though less dependable. That may change with some of the new tests on the horizon.

If **comfort** is most important, the saliva (spit) test and the mid-nostril test are more comfortable. However, both might be a little less accurate.

Even within the many types of tests, there are different manufacturers. Some have an unacceptable number of false positives (your result says you're infected when you're not) or false negatives (your result says you're clear but you're infected). Ask your doctor how reliable the test is and whether you'll need a second test if the results are negative though she suspects you're infected.



“I think I already had COVID-19. What test do I need?”

If you’re one of the lucky people to get a mild form of COVID-19, or you think you had it but aren’t sure, you might want to get an antibody/serology test. These tests look for antibodies to the virus. Antibodies are your body’s defense system. The presence of antibodies in your blood might mean you have some immunity to getting it again.

Because the virus is so new, no one’s certain how much protection antibodies provide or for how long. The latest studies indicate that that you may have immunity against getting reinfected for up to three months. However, exactly when that three-month period begins is unclear. If studies show that there is a natural immunity to COVID-19, antibody tests will be significant.

Antibodies don’t guarantee that you won’t get COVID-19 again. Think about the common cold which is a coronavirus, too. Just because you get it once, doesn’t mean you’re immune from getting it again.

But antibodies are important in that you now have a chance to be a hero and save other people’s lives. [The Rock is participating in a program](#) to get folks with antibodies to COVID-19 to donate blood so life-saving plasma can be turned into medicine for patients fighting to survive in hospitals. His website lists places near you seeking donations of plasma. Measures to prevent COVID-19 are still in development but many hope plasma is a pathway to treatment.

“Where can I get tested?”

There are many types of locations now serving as COVID-19 testing sites: from your doctor’s office, labs or medical buildings, to school gymnasiums and parking lots, to your own home. There are walk-in tests, and drive-up tests where you stay in your car and the technician comes to your window.

If you have a primary care physician, start there with a visit, virtual or in-person. Most medical practices require a telehealth or video visit if you have [any COVID-19 symptoms](#). Check first.

If you don’t have a personal healthcare professional, contact your [city, county](#), or state public health office for details. There you can search for testing locations and dates. You may have to make an appointment by telephone.

Where you live will affect your access. Every city and state has its own options, and rural areas have fewer locations than big cities. For example, in New York City you can schedule a drive-through or walk-up test. You can choose a deep-nasal swab or a mid-nose swab and throat or an



antibody test. And those are just the free tests offered by the city and the state. The public health website also offers the chance to book a test at one of many sites run by healthcare chains or labs which charge your insurance company.

“Can I get tested without seeing my doctor?”

In many states the answer is Yes *if* you’re experiencing [COVID symptoms](#) and think you might have it or if it’s necessary for work or school clearance. However, the guidelines are changing all the time. Contact your [city, county](#), or state public health office for details. There you can search for rules, and testing locations and dates. You can also check with your health insurance company who may only cover the costs of tests ordered by a physician. Even the availability of [at-home tests differs by state](#).

“What should I expect when I get tested?”

That depends. Which test are you taking and where are you taking it?

Currently, the gold-standard test for active COVID-19 infection is a deep-nasal swab molecular test conducted by a trained technician. She places a long cotton swab high in your nasal passages to get a sample of the mucus there. Yes, they put a cotton swab up your nose. And despite the jokes or complaints on the internet, the swab isn’t really touching your brain, though it feels like they’re poking it a bit. It’s uncomfortable but not painful, and lasts approximately 10 seconds. They need to get a good representative sample or the test might miss finding the infection. While this test is available in an at-home version, it may be more difficult to self-administer than the others, and failure to collect the sample properly can lead to inaccurate results.

A mid-level nasal (mid-nasal turbinate) swab test takes samples from your nostrils, which are easier to reach. Note that because it is dependent on getting a good sample, this test may be less dependable than the deep-nasal swab test performed by a lab technician. If you think you have COVID-19 and you get a negative result from this test, you may need to get tested again.

Some tests also take samples of the mucus deep in your throat. If you or your child has ever been tested for strep infection, expect it looks and feels like that. Ten seconds of discomfort is worth knowing your status.

The easiest test is the saliva test, also called the spit test. It’s simpler for you and safer for the lab technician. Basically, you spit into a sterile tube and either hand it to the technician or mail it to a lab for processing.



The test for antibodies is a blood test. The procedure is the same as any blood test you've ever taken. Your skin is cleaned, the medical technician uses a sterile needle to remove a blood sample from your arm. You may ask them to take the sample from your left or right arm, whichever you prefer.

No matter where you're tested, wearing a mask is mandatory.

"How much will the test cost?"

The Federal government passed the Families First Coronavirus Response Act (FFCRA) which included the provision that COVID-19 diagnostic tests are free to you. Unfortunately, the act has loopholes. You may not be fully covered for the cost of the exam to decide if you need a test. Some labs are also charging for results. Some testing centers charge your insurance. Also, while your physician may be in-network, their testing partner might be out-of-network. Check before you schedule.

Community health centers and charities may offer free testing if your community doesn't have its own center, especially in poorer or more rural communities where access to healthcare in general is limited. That's a double shame since [people of color, especially African Americans, are dying from COVID-19 at a much higher rate than whites are](#).

Missouri [State Representative Steven Roberts](#) partnered with fellow city and state representatives, Affinia Health Care, and the Department of Health and Senior Services to address both problems. In a St. Louis neighborhood where testing availability and public transportation is limited, they offer free testing for those in need. Similar opportunities may be available in your area; check your [local public health](#) website.

At-home tests are easy and convenient but can be expensive. Each state has their own list of which at-home tests are permitted. They're not covered by the FFCRA but they may be covered by insurance if your doctor has deemed it medically necessary. Prices range from free if covered by insurance to \$150. Be careful to choose an at-home test that is either FDA-approved or has an EUA designation. There are home versions of every test except ones that require a blood draw. [GoodRx keeps an up-to-date site](#) of what's available "on-demand" by state. By the way, even though you're self-testing, you still must mail the sample to a lab to get results. That can affect how quickly you get results.

Don't forget that while you wait for test results, keep doing everything you can to protect yourself and your loved ones.



“What do my test results mean?”

Depending on how and where you get tested, you’ll receive your results by text, email, and/or in the mail. Currently, all results are reported as either “Yes” — which means COVID-19 was found in your test sample — or “No” — which means it wasn’t found in your sample.

“What do I do if my test is negative?” A negative test means that you probably didn’t catch COVID-19 before you were tested. It doesn’t mean you can celebrate or stop social distancing or that you’re immune to catching it the same day. Some tests have a high false negative rate — meaning a high percent of test results indicate you don’t have COVID-19 when you do. That’s why caution is still recommended, especially if you have symptoms or were exposed. Until your symptoms subside, assume you have it and self-quarantine. Meanwhile, everyone, continue to wear a protective mask over your nose and mouth whenever you leave the house, try not to touch your face, and wash your hands frequently with soap and hot water. Until an effective vaccine or treatment is available widely, stay safe!

“What do I do if my test is positive?” We’re sorry to hear that. Once you get a positive result, even if you feel fine, you’ll need to quarantine; to isolate from your family or roommates for at least the next 10-14 days. The test result will include specific instructions, including how and when to get retested. The CDC also has detailed steps to follow for anyone who feels ill plus anyone who tested positive but still feels fine. It would be very helpful if you told everyone you had seen over the past two weeks, even if you wore a mask. That way they may get tested quickly and isolate, too. Besides, misery loves company. You’ll have someone to zoom call who you know will be home.

“I’ve been exposed but I feel fine. Should I get tested?”

Yes. Two-thirds of the state's public health officials — and nearly every epidemiologist — urge you to get tested if you've been exposed to someone who has been diagnosed with COVID-19. However, there may be barriers to doing so if you have no symptoms. One reason is that testing in your area may still be limited. The other is that advice in this area varies by state. If you have a regular doctor or medical practice, call and ask for their advice. If not, contact your local or state public health office. A final option would be to visit this GoodRx site and see what at-home tests are available in your area.

Just because you feel fine doesn't mean you're not infected. At least 40 percent of people infected with the virus aren’t experiencing any symptoms yet (presymptomatic) or may never have noticeable symptoms (asymptomatic). However, people with no symptoms could be just as infectious as people who are coughing, feverish, or have any other coronavirus



symptoms. Approximately [44 percent of people who caught COVID-19 were infected by someone before they felt ill.](#)

It's believed that even without symptoms, "viral shedding" occurs. That phrase refers to how "[a virus is released from an infected host.](#)" Recent studies indicate that viral shedding is highest just before someone experiences symptoms and continues even after the virus is done. That's a key reason why health officials ask everyone to wear masks, wash your hands frequently, and keep six feet away from others indoors and out.

Meanwhile, don't be surprised if you're told to get tested despite feeling fine. Many large companies, universities, warehouses, or factories require regular testing for people living or working closely together. It's one path to returning to life before this pandemic.

Your company or school may use pool testing, a faster and cheaper way for larger groups of asymptomatic people to be tested frequently in communities with low transmission rates. The idea's simple. Each test sample is grouped — or pooled — together so the group can be tested as one. If it comes back positive — meaning someone in the group is infected with COVID-19 — then the samples of each member of the group are tested again individually. You do not have to return to be retested; your sample is safely stored for this purpose. Pooling has been used for years by companies who conduct frequent random drug testing of employees.

"Anything else I need to know?"

COVID-19 is much easier to catch than the flu or pneumonia and has [a higher rate of death than either.](#) However, getting diagnosed with COVID-19 isn't necessarily the end of the world. Most people survive, even those who are considered at-risk of long-term harm. In the meantime, err on the side of caution. And remember, there are dozens of research groups racing to be first to have a working vaccine. Despite any general fears you may have of vaccines, consider getting one as soon as safety and effectiveness have been demonstrated. There may be multiple versions of the vaccine, so you, and your doctor, could have a choice.

Also, since flu season is around the corner, the [CDC has a new test](#) to detect two types of flu virus and COVID-19 simultaneously. If it is proven reliable, it will help reduce misdiagnosis of the flu and COVID-19. And get your flu shot as soon as it's available in your community! It will help your doctor correctly diagnose you if you develop symptoms that could apply to both illnesses.