



COVID-19 and Genetic Heart Disease: What to know

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What is COVID-19?

COVID-19 is the disease caused by a newly identified coronavirus called SARS-CoV-2. Although there are numerous other coronaviruses (many cause the common cold), this one is unique because it is brand new and the human body has not seen it before. Therefore, our bodies have not developed immunity. As a result, many people who are exposed are likely to get COVID-19.

The disease is thought to primarily affect the lungs, but in more severe cases, other organs can be affected.

The most [common symptoms](#) are:

- Fever (>100F)
- Fatigue
- Body aches
- Dry cough
- Shortness of breath
- Headaches
- Sore throat
- Loss of smell and taste

If you have any of these symptoms, it is important that you communicate with your doctor.

About 80% of people who contract COVID-19 will have a relatively mild course and will recover in 5-7 days. Other people will have a more serious course that may take a couple of weeks or more to resolve.

Those who get very sick may decline quickly, sometimes less than a day after worsening symptoms. Make sure that you track your symptoms. If you have trouble breathing, you should seek medical attention.

Approximately 10% of people who contract COVID 19 will need to be in the hospital.

About 5% of people need to be on a ventilator and/or in the ICU.

How do you catch COVID-19?



Close contact with someone who has it whether they show symptoms or not. This mostly happens when the affected person coughs or sneezes and spreads respiratory droplets with virus. These droplets can land in or be transferred by hand to face contact to nearby people. For more information go to CDC's page "[How Coronavirus Spreads](#)".

How does COVID-19 affect the heart?

There are a number of cardiac consequences that can occur with COVID-19. Some patients develop an inflammatory reaction of their heart (myocarditis) which can lead to decreased pumping function and/or heart rhythm problems, even sudden death. Other cardiac complications associated with COVID-19 have been reported, including Acute Heart Failure, MI, Cardiac Arrest, Arrhythmias, and Acute Cardiac injury.



The heart can be affected early on, but more frequently cardiac-related consequences seem to develop at or soon after recovery from breathing problems. We don't yet understand why this is happening or who is at greatest risk, although patients with high blood pressure, diabetes and heart disease of many different types are likely at increased risk.

Am I more at risk for complications or severe illness with COVID-19 because of my underlying cardiomyopathy/genetic heart disease?



You are not necessarily at greater risk of catching COVID-19 because of your cardiomyopathy. There isn't yet enough information about this new virus to tell you whether having a genetic heart condition, like hypertrophic, dilated or arrhythmogenic cardiomyopathy puts you at higher risk of developing complications or having a more severe course.

People with more common types of heart disease seem to be more susceptible to complications related to COVID-19. Also, patients with COVID-19 who are hospitalized and have evidence of heart damage do worse than those who don't show signs of heart damage.

To be cautious, you should follow the [CDC recommendations](#) for hand washing and social distancing very carefully. If you have any other risk factors (age over 60 years, coronary artery disease, high blood pressure, lung disease, diabetes or are immunocompromised because of a transplant or because of cancer therapy), you should follow the [strictest recommendations](#) and minimize your interaction with people outside your household.

At the beginning of April 2020, recommendations were made for people to cover their face with a homemade or regular surgical mask when out in public to try to decrease the risk of spreading the virus. If you have symptoms or are taking care of somebody who is sick, you should also wear a mask.

Should I stop taking my ACE-inhibitor or Angiotensin Receptor Blocker?

The [American College of Cardiology](#) and [European Society of Cardiology](#) **Do Not Recommend** stopping these important medications.

No changes should be made to your existing medication regimen without direct consultation with your doctors. Recommendations may change as more knowledge is gained.



If you keep your hands clean all the time, don't touch your face, and avoid crowds you will decrease your risk of getting sick.

Rules to Live By

- ✓ Keep 6 feet away from other people and avoid contact with people outside of those you live with.
- ✓ Clean your hands after you've touched anything from outside your home.
- ✓ Don't touch your face.
- ✓ Physically shrink your social circle: Don't get together with other people and don't have other people come in and out of your house.
- ✓ Don't socially isolate yourself. Stay connected by phone, text, email, facetime, and any other non-contact fun, convenient, and creative means
- ✓ Stay physically active and take care of yourself. It is OK to go outside and go for a walk, jog or bike ride, unless otherwise advised or mandated. It's a good idea to get some exercise and fresh air every day. But go by yourself or with a member of your household.
- ✓ Avoid crowds, and if you do see other people, make sure to stay at least 6 feet away.



What do I do if I get COVID-19?

If you develop a fever but are otherwise ok, stay at home but isolate yourself from your family. Unless you are severely ill, avoid going to the Emergency Room or doctor's office to limit exposure to other patients and healthcare workers. You do NOT need to go to the hospital if you just have fever, body aches and cough. Speak with your healthcare provider to get advice on whether you should be tested and before coming out of isolation.

- If you can, stay in a separate room and use a different bathroom.
- If you have to interact with your family, wash your hands and put on a mask.
- [Clean](#) and disinfect every surface that you contact.
- Family members should avoid sustained contact (over 15 minutes) and particularly avoid touching anything that has been in your mouth or anything you've coughed/sneezed on.

If you are living with a vulnerable person (elderly people or anybody who is immunocompromised, has cancer or chronic lung disease), that person should be completely isolated from the sick person. For more information about what you should do if you become infected [click here](#).



When do I go to the hospital or call 911?

[According to CDC](#), if you are concerned about your worsening symptoms, reach out to your doctor or seek medical attention. If you are having trouble breathing or any other symptoms that require immediate medical attention, you should call 911 or go to the emergency room. If you have access to an oxygen saturation monitor, you can check your saturation and seek medical attention if it falls below 92%.

If you do call 911, please notify the 911 operator that you believe you have COVID-19 and if possible, put on a mask before coming into contact with medical personnel.



Is it ok to take ibuprofen or other NSAIDs (Advil/Motrin, Aleve/Naprosyn)?

There is still some disagreement about the safety of NSAIDs with Coronavirus but until we know more it is probably best to use Tylenol/acetaminophen and avoid NSAIDs.

Additional Resources

- [CardioSmart](#)
- [AHA](#)
- [The ACC/AHA/HFSA statement](#)
- [The CDC website](#)

Protecting yourself during the COVID-19 outbreak

Wash your hands with soap and water frequently for at least 20 seconds. This is especially important in these situations:

- Before you touch your face (especially your eyes, nose, or mouth).
- After you touch your face (especially your eyes, nose, or mouth).
- After you touch a potentially contaminated surface (for example: elevator button, door handle, subway pole, toilet lever, cash, credit cards).
- Before you eat or put anything in your mouth.
- After you cover your mouth and nose because you have coughed or sneezed.

You can use an alcohol-based hand sanitizer like Purell or Germ-X with an alcohol content of at least 60% if you are unable to wash your hands, but handwashing is favored over sanitizer if a sink and soap are available. When washing your hands, make sure to rub all surfaces of your hands - front, back, and between your fingers – with soap and water for at least 20 seconds. Do NOT use your freshly washed hands to turn off the tap – leave the water running as you dry your hands with a paper towel, then use the paper towel to turn the tap off.

Avoid touching your face! You can easily acquire COVID-19 by rubbing your eyes, nose, or mouth (mucosal surfaces) with contaminated hands. If you are sick, you can easily make others sick by touching your face, then touching other surfaces commonly touched by many people like a doorknob. The average person touches their face at least once every 2.5 minutes – avoid doing it as much as you can, and at a minimum, wash your hands thoroughly before and after if you *must* rub your eyes or touch your nose or mouth.

Clean and disinfect high-touch surfaces in your environment regularly, including door handles and knobs, phone or tablet screens, computer keyboards, keys, faucet handles, toilet levers, countertops and buttons on appliances. You can use disinfecting wipes, 70% alcohol, or a 10% bleach solution to accomplish this. Once disinfected, handle these surfaces with clean hands as much as you can. Do not touch these surfaces with your hands if it can be avoided – use an elbow, knuckle, foot, or clean tissue/paper towel if possible.

Avoid close contact with anyone who might be sick. COVID-19 is mostly spread through droplets when people cough or sneeze, and through contaminated surfaces. Try to stay **at least 6 feet away** from people. As many as 80% of people with COVID-19 have minimal/mild symptoms. Many may not even know they are sick. Also, most people who are asymptomatic may not look sick.

Practice social distancing. Avoid crowds as much as possible (movie theaters, concerts, church services, conferences, airplanes, buses, subway cars) – ideally, stay at home if you can while the outbreak is ongoing. Avoid handshakes and other close personal contact during the outbreak, even with people who do not appear to be sick. Children should not have in person playdates.

Secure enough essential supplies for at least one month, or longer if possible. CDC now recommends that people over 60 years of age or with chronic medical conditions stock up on essential supplies, including enough medication and food, so they can “stay at home for a period of time.” Ideally, you would aim to have a 4-5-week supply of prescription medications, dried/frozen food on hand at a minimum, more if possible.

If YOU are sick or just coughing and sneezing a lot:

- Avoid close contact with other people – don’t get them sick either! Stay at least 6 feet away from them. No close personal contact with anyone. Stay at home from work or school.
- Cover your mouth and nose with a tissue when you cough or sneeze. Contain those droplets! Dispose of the tissue, then wash or sanitize your hands thoroughly. At a minimum, if you do not have a tissue, cough or sneeze into your elbow, then wash or sanitize your hands thoroughly.
- Wear a surgical or homemade mask if you must leave your home or come into contact with other people – these masks have limited ability to protect people from acquiring COVID-19, but they do contain the spray of droplets from people who are sick, reducing the risk of infecting others.
- Call your doctor’s office **before** going in for an appointment to let them know you are not feeling well – most offices have procedures in place to reduce the risk of patients getting exposed to those who may potentially have COVID-19 infections in the waiting room, in the clinic, or in the emergency room.