

Long COVID and heart conditions—even mild cases can cause long-term problems

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Chadwick Knight weathered a rough bout of COVID-19 back in January 2021 without being hospitalized, but he never bounced back to his former healthy self.

He got winded all the time. He experienced brain fog.

Then, well over a year since catching the coronavirus, the 47-year-old collapsed on his living room floor last month. He was rushed to an emergency room with a new, life-threatening post-COVID complication: a blood clot in an artery going from his heart to his lungs.

"You get sick, and you think you're pretty much better and then you are still having issues. And now, it just seems like more things on top of things, and you don't know what the future holds," said Knight, who lived in metro Atlanta for several years before recently moving to Dothan, Alabama. "It causes you to worry a lot and weighs you down a lot mentally."

Cardiac doctors are reporting a growing number of patients like Knight, who have lingering post-COVID cardiovascular symptoms or new, serious heart conditions. These patients may have a wide range of heart problems, including irregular or racing heartbeat, [blood clots](#), coronary disease and heart failure.

A new large study by the Centers for Disease Control and Prevention found 1 in 5 adult COVID survivors under the age of 65 in the United States has experienced at least one health condition that could be considered long COVID. Among those 65 and over, the number is 1 in 4.

Long COVID is the name given to symptoms of a coronavirus infection that linger for more than a month and can include problems in many different organs such as the heart, lungs and kidneys.

The extent of long COVID cardiac symptoms is coming into better focus.

"We've seen, since early on, patients come in with long COVID," said

Dr. Jeffrey Marshall, chief of Northside Hospital Cardiovascular Institute. "And the first thing that doctors have to do is decide does this patient have objective heart disease, or do they have this syndrome where they tend to be dizzy when they stand up—people who have a fast heart rate, fatigue, but they don't have anything structurally wrong with their heart based on our current knowledge?"

In a recent study of the health records of more than 150,000 people who were treated for COVID in Department of Veterans Affairs facilities before Jan. 15, 2021, researchers found that the patients had a "substantial" risk of developing cardiovascular problems for at least a year after a positive test for the virus.

Patients who were hospitalized with COVID faced the highest risk of serious heart or cardiovascular problems, especially those who were treated in the intensive care unit. But risks were elevated even among people who did not have severe cases and were never hospitalized.

Overall, researchers found when comparing those who never had the virus with those who had, in every 1,000 patients, 45 more developed at least one of 20 different heart conditions. That's equal to about 4%. Despite the that low percentage, the numbers can add up: With over 83 million people infected in the U.S., millions could potentially suffer cardiovascular complications.

Dr. Rajeev Singh, a Piedmont Heart Institute cardiologist, said the VA study's strengths are its massive size and rigorous statistical analysis. But he said the study also has limitations: Most of the participants were white men, and the data was collected before most were vaccinated and before the emergence of many variants, including omicron.

Even so, the study's findings have resonated with doctors.

"Any COVID is bad COVID and can have many downstream effects—neurological, cardiovascular," said Singh. "The best way to prevent long COVID is not to get COVID in the first place."

Even before the COVID pandemic, heart disease was the leading cause of death in the U.S. The Centers for Disease Control and Prevention estimates that every year about 659,000 people die of heart disease—or 1 in 4 deaths.

Doctors have identified several ways COVID can damage heart muscle and heart function. As the body's immune system fights off the virus, the inflammatory process can damage blood vessels and some healthy tissue, including the heart. But often [medical tests](#) don't find any obvious signs of heart damage in those who report cardiac symptoms.

One leading theory about long COVID cardiac issues suggests that, for some people experiencing a racing or skipping heartbeat, dizziness or shortness of breath, it may not be a new cardiac problem. Instead, it might be a neurologic one triggered by the virus. COVID can affect the autonomic nervous system, which controls involuntary bodily functions such as blood pressure, heart and breathing rates, body temperature, digestion and metabolism. When this system malfunctions, so do the processes that it regulates.

That's been the case with Adrienne Levesque, who has grappled with an array of debilitating symptoms since catching COVID for the second time in August 2020. She's had not only brain fog and fatigue but a racing heartbeat even when resting, elevated blood pressure and palpitations. The 49-year-old started seeing a cardiologist in late 2020 at a long COVID clinic and was diagnosed with dysautonomia, a malfunction of the autonomic nervous system.

Levesque started the Georgia COVID long haulers group on Facebook.

"Cardiac issues are huge. There are so many people in the Facebook group having the same things going on," said Levesque.

Doctors encourage former COVID patients who are experiencing irregular heartbeats, dizziness and other problems to discuss these symptoms with their health care providers. Medications and physical therapy can help alleviate some symptoms.

Doctors say there is good news for those patients who don't have damage to their heart: Most of them seem to get better over time.

Marshall of Northside said serious cardiac complications—such as myocarditis, an inflammation of the heart muscle that can lead to [heart failure](#)—are extremely rare in long COVID patients who don't have anything structurally wrong with their hearts. Far more common, he said, is "irregular heartbeat, dizzy standing up," he said. "Those people over time seem to be getting better."

Dr. Joel Rosenstock—medical director of AbsoluteCare in Buckhead, which now includes the Long COVID Clinic, agrees. He rarely sees serious, life-threatening cardiovascular complications. The majority of his long haulers have what he calls "the softer sides of long COVID."

"It's not soft to them, by any means," he continued. Symptoms, he said, often include "fatigue, people functioning 40% to 60% of their normal energy levels. People who used to go to the gym every day and now they can't go at all. They used to walk 2 miles every day. Now they can barely walk 500 feet. Brain fog is a gigantic problem."

Rosenstock, who develops individualized care plans to manage his patients' symptoms, said his goal is to help every long-haul patient get better, but the recovery can be slow and some people may never return to their former health.

"One of the things I always ask patients is what percent of normal are you? And, oftentimes, they will say 25%," said Rosenstock. "And when they come back weeks later, they may say they are at 40%. We celebrate that improvement."

After getting sick with COVID in October, Ashley Morris, a 42-year-old medical assistant, experienced a constellation of lingering symptoms, including "tachycardia," a medical term for a heartbeat of more than 100 beats per minute without exertion. Morris, who is a practice coordinator at Northside Hospital's Cardiovascular Institute, underwent a battery of tests, including an EKG to rule out blood clots and other heart problems. Her tests showed no measurable damage. She was prescribed an inhaler and a physical therapy program that was tailored for her COVID recovery.

"I'm better but not fully better," she said.

Morris also sees patients who are struggling with some of the same health problems.

"I feel for them, and some are kind of like me. Ever since I had COVID, I have had shortness of breath, and that's one of the biggest complaints I think," she said "Now, if I carry groceries to my car, I have to wait a few minutes in my vehicle to catch my breath."

Morris said she was unvaccinated when she fell ill and plans to get vaccinated soon.

Levesque is also better than she was in the fall of 2020, but said she is far from reaching a complete recovery.

Meanwhile, Knight, who caught the virus before becoming eligible for the vaccine, is now vaccinated and boosted. He is taking blood thinners

to prevent any more blood clots and continues to go to a long COVID clinic for help with other lingering problems. He will soon undergo a cardiac catheterization to take a closer look at his heart.

Lately, he worries his condition may be getting worse, not better.

Simply carrying his 15-pound Shih Tzu, Cooper, to the mailbox leaves him exhausted.

"I miss the pre-COVID days when you are living your life and not having any issues. I am hoping I won't get as short of breath. I am hoping no more blood clots and they won't find anything wrong with my [heart](#) and I can not be so anxious."

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