

COVID-19's Lingering Tail: Long COVID's Symptom Burden and Treatment Options

Episode 2 – Long COVID Symptoms and Treatment

The following transcript has been lightly edited for clarity.

Guest

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- Co-host of 5-star-rated podcasts, *The Week in Parasitism* and *This Week in Virology*
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Transcript

(SOUNDBITE OF MUSIC)

DR. DANIEL GRIFFIN, GUEST:

One of the most striking, one of the ones we see reported quite often, is fatigue. And this isn't just, I'm a little tired, I need a cup of coffee. This is, I go up a flight of stairs and I'm done. I have to now sit down. This is, you

just can't do normal things. I try to do a walk around the block. I've had triathletes that a flight of stairs is just enough to finish them for the day.

DR. DEBORAH MARTIN, HOST:

Welcome back. I'm Dr. Deborah Martin for Elite Learning, and you've just heard Dr. Daniel Griffin refer to one of the health issues frequently associated with the post-SARS-CoV-2 cluster of symptoms commonly known as long COVID. Debilitating fatigue is joined by other symptoms, including dyspnea, tachycardia, headache, joint pain, gastrointestinal upset, and cognitive impairment, not to mention the mental health effects of persistent illness, experienced by [tens of thousands of people](#) following COVID-19 infection.

Dr. Griffin is an internal medicine and infectious disease physician with expertise in COVID-19. He's the co-host of the highly rated podcasts, [This Week in Parasitism](#) and [This Week in Virology](#), in which he discusses developments in SARS-CoV-2 diagnosis and treatment, as well as post-infection sequelae. You can learn more about Dr. Griffin's background in the show notes for this episode. You'll find explanatory graphics and other helpful information in the show notes, too.

In this second episode of our two-part podcast, Dr. Griffin continued to explain the phases of COVID-19 infection and treatment of long COVID symptoms.

(SOUNDBITE OF MUSIC)

GRIFFIN: All right, so now it's been that first week. And now, you've spoken to your provider, maybe. They've talked about the time for monitoring. You're keeping track of things, but now, you're starting to have a little trouble breathing, or you're checking your finger every day, making sure that oxygen level is staying up and you start to notice the oxygen level starts to drop, starts to drop below 94, maybe starts to drop into the 80s.

This is when you want to start thinking about steroids, not that first few days, not that first, we used to say week with the others, but now, it might be a little shorter with Omicron. When your oxygen level starts dropping, that's when you want to be thinking about the steroids.

I will say, this may be what keeps people out of the hospital. There is a reduction in your chance of death here. We're not sure about the impact on long COVID, but something to think about there. Anticoagulation, do we start taking blood thinners? Do we take an aspirin every day? We've looked at that in people that are in the hospital. They're not moving around, clearly a benefit.

We've looked at it in people that were able to keep out of the hospital, able to keep them up and about, not helpful, potentially harmful. So we recommend holding back. A disease where doing nothing is better than doing something, that we're trying to help, but potentially harmful.

MARTIN: And that's difficult for healthcare providers to do, to sit back and do nothing or sit back and wait.

(LAUGHTER)

GRIFFIN: Yes. Less is more.

MARTIN: We're doers, we want to do things.

GRIFFIN: Less is more sometimes. Yeah, don't do something if it might harm our patients. We've got to step back and say, we're treating our patient, not ourselves. You may feel like you want to do something, but what you want to do is what's best for your patients. So know that I agree, that is hard. We want to do stuff.

Pulmonary, what do we do to help support these people if the individuals start having trouble? Sometimes, just positioning. I was talking to my patients, are you a person who likes to sleep on their back? How do you feel about sleeping on your belly? This is oftentimes when people might end up in the hospital. This is that time, we might give them that remdesivir.

How much does the remdesivir do? I'm not sure. If anything, I think the problem is, it's an IV medicine. We're probably giving it too late. So the most promising data, that actually they're acting on in certain places, like California, was giving this during that first week.

So the challenges of setting up centers. How do you how do you go ahead and do that?

So there we are. So now, the person is potentially in the hospital or not in the hospital, as we talked about, that critical second week. People start to get better. Most people will start to get better; but then sometimes we can start to see a setback. And what we call this period of the secondary infection phase or this later inflammatory.

This is when you're at risk of actually getting those bacterial infections, those fungal infections. This is when you may actually want to consider using antibiotics, using antifungals, but you want to have this diagnostically driven. This is also when people can have those clotting complications. So this is when you really have to start thinking it through. This is not just a connecting the dots.

MARTIN: What about people that are more at risk for clotting, such as a protein S deficiency? Has COVID impacted that in any way or are they not necessarily at more risk than the general population?

GRIFFIN: No, so there is something, we call it the IMPROVE score, I-M-P-R-O-V-E. And a nice publication came out looking at this. Because one of the challenges, if you get that person through the hospitalization, so when they're in the hospital, we're making a judgment, what's their risk of clotting?

Are we using low dose or high dose? If they have risk factors, we're recommending high dose. If they end up in the ICU, we'll say low dose, individualized.

But now they leave the hospital. If they have a high risk; or if they're at high risk of clotting, these might be people that go home on blood thinners, trying to prevent them from having clotting complications. And I guess that's what brings us into long COVID, or the tail phase.

Prior to vaccinations, we were seeing estimates of about 30% of individuals who were infected, who got COVID, most people are staying out of the hospital. So the larger number is people that never end up in the hospital. Four weeks go by, six weeks go by, eight weeks go by, and they are not feeling better.

Now, some of this is expected. People ended up in the ICU, there's a certain post-ICU syndrome. Some people may have actually had kidney or heart or lung damage, but other people just feel bad. And there's a number of long-term issues that we see.

One of the most striking, one of the ones we see reported quite often, is fatigue. And this isn't just, I'm a little tired, I need a cup of coffee. This is, I go up a flight of stairs and I'm done. I have to now sit down. This is, you just can't do normal things. I try to do a walk around the block. I've had triathletes that a flight of stairs is just enough to finish them for the day.

Cognitive impairment, and I have to say, for a lot of my friends and colleagues, the inability to be able to think properly. How is a pilot supposed to go back to work when they're having cognitive disturbances? How is a nurse supposed to take care of patients? I've had tenured college professors who have difficulty signing their name on a check. So brain fog is maybe an underestimation of just how profound the cognitive impact can be.

MARTIN: Are there assessments out there for assessing the cognitive ability for physicians, nurses, our other healthcare colleagues, or the pilots that are flying planes that we may be on again someday?

(LAUGHTER)

GRIFFIN: Yes, so there are, actually. And there are a number of studies where they've used these, they've looked at it, they've really documented that people with and without COVID, the comparison and the deficits. One of the challenges, and I think this is for clinicians that are listening, a lot of patients are very sensitive, are very defensive, and a little resistant to getting formal testing. As if, if you can deny it, maybe it will go away.

So this can often be bedside manner, having a conversation. A lot of times, if this person is going to have trouble returning to work and potentially, pursuing disability, having something objective, like that cognitive testing, can really help to document it. So as demoralizing, I know, as it can often be for someone who previously was high functioning to go through the testing, it often can actually be a really good and really valuable thing to do.

MARTIN: And I think that's important, that we help the patients be where they need to be. And it also brings another point to my mind about our role as the healthcare team and the ethics of helping each other. When we see the cognitive impact [in] a colleague, do you have any advice about that? How do you handle that?

GRIFFIN: Yeah, no, that's very challenging. That's one of the highest things because what the fear here is, you're saying that I can't do my job ... my livelihood is threatened. And that is very scary for anyone.

So that that's going to take very gentle, a lot of a dialogue, seeing if the person is open to discussing it. And very, very challenging. To be honest, personally, that's what devastates me the most is seeing my patients who just lost their ability to think.

The other trouble: breathing, pulmonary compromise. And the tough thing here, a lot of these individuals will have normal pulmonary function testing. They'll have normal chest x-rays, normal CAT scans, all the tests are normal. I sometimes wonder why so many tests are being done, so much radiation is occurring. And for some patients, it could be frustrating, and nothing was found.

So a lot of times, it helps if you can prepare patients. Talk to them ahead of time. Say, you know what? It is normal, it is typical to get all this testing done. And in most cases, we will not see the problem on a picture. We will not see the problem on one of these tests, but it does help because sometimes you will discover things on these tests that might impact therapy.

Cardiac issues, you could probably guess, we're starting to probably pull in some of our colleagues to help us if we're a primary care doctor. Sometimes we get a cardiologist involved to determine what can we do? What are these cardiac issues?

Sometimes there can be heart damage. Sometimes there can be rhythm disturbances. Sometimes there can be the devastating autonomic dysfunction. I have a 16-year-old gal that I just saw yesterday and when I first met her, she had, prior to COVID, been a very active, athletic dancer. And her mother showed me videos, same age as my son, Barnaby, who's 16 as well.

Now, after developing COVID, this little girl had gone on to develop vocal cord paralysis. She had such severe POTS disease, this autonomic dysfunction, that whenever she would go from being laying flat to just inclining the head, she would start vomiting. She would have a drop in her blood pressure.

So working with the cardiologist, there are, and I will say, things we can do. When I saw this young lady in our visit, she was sitting up during the entire visit, no vomiting, smiling, starting to get a little bit of her voice back because the vocal cord paralysis had been diagnosed.

So cardiac issues. There's a lot there and so we may be reaching out to our colleagues for help. We may be using medicines that we're not normally used to using for these individuals.

GI, I think that GI issues are underappreciated. Recently, we're hearing, oh, with Omicron, the symptoms have changed. We're hearing more back pain, more gastrointestinal. My comment was, were you talking to your patients for the last two years?

(LAUGHTER)

Because early on, if you went in the room, spent some time, the majority of people were having gastrointestinal issues. I mean, this is a virus that affects the whole body. And so some of those gastrointestinal issues, some of that really severe intractable heartburn, some of that loose stool and diarrhea, it does not go away. Sometimes it gets better. And then it comes back.

One of the things with these symptoms, they don't always appear during the acute phase. Sometimes people get better, and it's about six to eight weeks out when they first start to have the problems.

MARTIN: So we address those problems individually, from the GI tract perspective then, just as you would cardiology or respiratory issues?

GRIFFIN: So that's actually a lot of the way we're addressing these issues. We have ways of dealing with diarrhea. We have ways of dealing with the acid issues, with the reflux. We have ways of dealing with the tachycardia. We'll get into headaches in a moment. And what we do is, we use methods that work.

We focus at this point. We don't have a great understanding of the underlying mechanism that will allow us to go after that. So we focus on these as we would from all the other patients with that presenting symptom. And we're having success. We're actually able to improve these patients' experience.

MARTIN: Now, what about patients that lose their sense of taste and smell, are there strategies around how to address weight loss if that becomes an issue with long COVID?

GRIFFIN: Yes, actually, I think that's great that you bring that up. We think of, oh, you can't smell, you can't taste; but one of the big impacts that can have is people start losing weight. They're not eating. Eating is not enjoyable. Eating becomes a chore. And so that becomes a challenge.

Some people are trying to add extra spices to their food, just trying something so they can actually get some sort of an experience. It was actually a chef and that's part of how we realized he had COVID. People are like, what are you doing to the food? Because he was over-spicing it.

(LAUGHTER)

No, this is really a challenge. And, unfortunately, early on we had a lot of ideas about how we might treat the loss of smell, the impact on taste, but unfortunately, using nasal steroids [INAUDIBLE], we haven't really seen any good evidence that that's making a difference. It really just may be a matter of time, letting the support cells regrow and return after the damage.

MARTIN: What are you seeing as the time frame for the majority of those patients getting their sense of taste and smell back? And is it different with the various variants that are out there?

GRIFFIN: Yeah, I don't know if it's different with the different variants, I'll say that, but there is a little bit of a time course. In what we're seeing in the people who've been vaccinated, it's usually coming back quicker. So that's encouraging. We still are seeing it. We've definitely still seen loss of taste and smell and vaccinated tends to be shorter-lived.

The unvaccinated, I will say, here, we were actually seeing months and months. And then, one of the first things we would notice is smell would return, taste would return; but it would be described as metallic or foul or unpleasant, taking a while for it to return back to normal.

Into this pandemic now, who still have yet to get their taste and smell back. So for some people it's longer. There is an optimism that two years is going to be the limit on this, but we'll have to see. Time will tell.

MARTIN: Yeah, time will tell. And that is the thing with long COVID, it is a long-term disease. So a lot of studies need to happen yet.

GRIFFIN: Yeah, and they really do. I mean we keep talking about all these studies that are going to happen; we're still waiting. But to continue in the list of things, so insomnia, what about that? It's actually quite common.

I had a colleague; I don't think he realized he had insomnia - we'll get into the impact of vaccines - but he got vaccinated. He said, you know what, Dan? I didn't realize this, but a couple of weeks ago I got my vaccine and now, I'm [not] sleeping through the night. I used to always sleep through the night. And this was a long COVID symptom that he had developed but never made the connection until he got vaccinated and it went away.

The insomnia, sometimes we're using melatonin, which is surprisingly effective, but not in everyone. So it becomes, try the melatonin, about 5 milligrams, 30 minutes before you go to bed. Some individuals were using antihistamines, things like Benadryl, before they go to bed. Often going through. Some people, over time, will actually develop an anxiousness; they are traumatized by the fact that they try to go to sleep, and they can't.

But once you can actually address insomnia, this can often have an effect, a waterfall effect, on some of the other symptoms as well. So it's important to ask, do I have insomnia, do my patients have insomnia? And let's start trying to work through that.

And the mental health issues. How much of this is being driven by COVID itself? How much is being driven by the fact that you've been sick for months and months and not getting better? We actually think COVID itself has impacts on our emotional state, on anxiety, and depression, and others.

So a lot of times, you find you're working with mental health professionals who are overworked, overtaxed, in short supply. So a lot of times our primary care doctors are having to reach in and start working, treating anxiety, treating depression. But what goes a long way is validation.

If we as clinicians are aware, if we can have educated conversations with our patients, where they appreciate that we understand what they're going through, where they feel validated during this long recovery phase, I'm going to call it, hopefully, with my optimism, that can really be an important thing.

MARTIN: Have you found that virtual visits are helpful with mental health, especially during the COVID time with needing to have that physical distance, as well?

GRIFFIN: Yeah, I actually think that telehealth has really been helpful for a lot of patients, particularly ones with long COVID. They're exhausted, asking them to come out of the home, which maybe they're frightened about having gotten COVID, to wait in an office waiting room, going through that whole – a lot of them feel secure, a lot of them seem to really enjoy the telehealth experience.

I offer both opportunities. And most of them, actually, really enjoy the telehealth. So telehealth has actually been, really, a great way for a lot of people; but there certainly are times when you want to have an individual, you want to do a face-to-face, but boy, the telehealth has really been helpful for a lot of individuals.

MARTIN: Yeah.

GRIFFIN: And headaches, this can't be complete without headaches. An incredible amount of new onset, really migraine-type headaches after acute COVID, extending into the long COVID period. And here, we've really had a lot of success with our traditional migraine medications. So the short-acting sumatriptans, all our different triptan medicines, even some of the long-acting injectables, things like AJOVY and Aimovig, that have come out.

These people do not need to suffer. And a lot of times, you may get a neurologist involved who has experience with migraines and that training, that expertise, those therapeutics can actually cross over, which is great. All right, so I am going to go back to our case study.

MARTIN: I can see a lot of crossover between a lot of specialties.

GRIFFIN: It really is. Most places, they'll say, what we've done here on Long Island, a lot of our medical centers in the city have done as well, is set up COVID recovery centers, where you have a group of specialists and primary care providers who are interested, excited to keep up with the developments, really are wanting to take care of these patients and willing to work together with a lot of communication – because it does take communication.

So let's get back to that husband and wife that we talked about.

MARTIN: We left them sitting there.

GRIFFIN: They're still sitting there, but they've been listening the whole time. They're enjoying this whole discussion.

MARTIN: Good, good.

GRIFFIN: And what was their question? They had heard that, maybe, getting vaccinated was going to make a difference. So we actually had that discussion. We discussed the fact that I had made this observation, a number of us had seen this early on when people first started to get vaccinated, that a certain percent of people, not all, but a certain percent were improving after vaccination.

So the husband and wife decided to move forward, both getting two doses of an mRNA vaccine. Went ahead and saw them six weeks later. Why the six weeks? So get that first dose, get that second dose, we give it a little time to see what's going to happen.

What we're seeing, roughly, is maybe 30% are noticing significant improvement after the first dose. Picking up a few more, so we're up to about 50%, 60% after two doses, but then, not everyone, right? So checking in to see where we get.

So the wife reported full resolution of her symptoms. She said, I am 100%. I am back, this is great. So that was wonderful. The husband reported only some improvement, but his main thing, no real impact in improvement on his GI symptoms.

So sort of nice because you're getting the honest story here. Not everyone, we don't want to over promise and under deliver here. One of the first things that I usually discuss with my patients who come up with long COVID is getting vaccinated if they haven't. Seeing how they do. Getting that first shot, getting that second shot, maybe even getting that third shot.

Vaccines are clearly safe in an individual that was infected with COVID before. They may even also have this therapeutic benefit. There also is, potentially, the reduction in them getting a second infection, potentially having a bad consequence. So you've had COVID before, you're a little traumatized, you're even so traumatized you're not sure you want to go out to see the doctor because you might get COVID again. Getting vaccinated can help with that fear.

MARTIN: And that was going to be a question I had, is a patient that previously had COVID, are they able to get infected with COVID again and again and again? And I think, you may have alluded to, that with the vaccines, that they may be more frequent for us. And just like the flu, the flu shot, we may be getting a COVID shot, a vaccine on a routine basis. So we can get infected and infected and infected, is that what I'm hearing?

GRIFFIN: Infected, infected, infected, infected, yes.

(LAUGHTER)

GRIFFIN: So it really –I have to say, early on when we started seeing COVID, there was a lot of discussion. Certain viruses, you get infected once and your chance of getting reinfected is incredibly rare. Coronaviruses, as a group, they're characterized by an ability to reinfect. Your normal, common coronaviruses, it's about once a year you can actually get infected. And then the next year, reinfected. Same common coronavirus; doesn't even need to change.

It has some ability to thwart our ability to make an enduring immune system. So we started seeing the first reinfections as early as the spring of 2020. So it was pretty soon that we started to see the first few. Now, clearly, with Omicron, we are seeing lots and lots of reinfections. We're seeing a Delta infection in November. We're seeing Omicron December, January.

So I even, unfortunately, have some individuals that I took care of, April 2020, in the hospital, treated them with oxygen, got them through this, back in the hospital now. Back on oxygen because they didn't take the opportunity to get vaccinated. In the South African studies, we're seeing documentations of people with their fourth COVID infection. So, yep.

MARTIN: That's a shame. And especially if the vaccine could prevent that or, at least, prevent the hospitalization that goes along with it.

GRIFFIN: Yeah, no, and I think that's a big thing. I mean, people who've had COVID before can get reinfected. If you get vaccinated after that infection, you can significantly reduce that chance. So we recommend vaccines for everyone, whether you've been infected before or not, just to reduce your chance of getting COVID again.

MARTIN: And speaking of everyone, we haven't really touched on pediatrics much, and you're not a pediatrician, but do you have any information for us about pediatric patients – morbidity, mortality, across the US?

GRIFFIN: Yeah, I mean, so the last couple of months have been tough there. We have more children in hospital now than we ever have had during the entire pandemic, more kids getting infected. Some of our hospitals, 30%, 40%, 50% of the kids in there having COVID. Here at our local hospital, it's about 50%.

When children end up in the hospital, about a third of them end up in the ICU. We really try not to admit children to the hospital. It's rather traumatic for children to end up in the hospital. Age does impact your risk, but there isn't any age cutoff where people stop being at risk. So now, we have vaccine access going all the way down to 5 and up.

There were some concerns with the myocarditis in the 12 to 17. But in that younger, in that five to 12, with the lower dose, we're not seeing myocarditis. We're seeing it incredibly well-tolerated, incredibly effective in that age group. When we're seeing issues in the slightly older kids, we're talking about a little bit of discomfort, inflammation for a day or so. We're not seeing the long term.

So much different than the heart issues we have when a child ends up getting infected with COVID. But, no, unfortunately, we're seeing a lot of children end up in the hospital now that we have other viruses circulating as well, RSV, influenza. There was a study published just at the end of December, not really a study, I guess, it's an MMWR publication, and about a third of those kids have something else going on, too. So the double whammy getting those kids in the hospital.

MARTIN: So again, it's patients that are at risk for other reasons as well and then they succumbed to COVID.

GRIFFIN: Well, the interesting thing, I think this is really important, when they looked at all those children that got admitted to hospital with COVID, one third of them had no other medical problems.

MARTIN: Oh, interesting.

GRIFFIN:] Which I think – because we always think, oh, well. Oh, well, they have co-morbidities. Oh, well –

MARTIN: It won't happen to my child, right?

GRIFFIN: I think that's where we're going. It won't happen in my child because my child is so young and healthy. And this is devastating. A third of those children, there was no risk factor, there was no warning sign, there was no heightened concern; and they end up in hospital.

And I think, not only that, but children can get long COVID, as well. And I'm often involved in discussions, I will not go down to the youngest age and do pediatrics because I'm an adult infectious disease specialist, but I certainly have a lot of discussions on a regular basis with my pediatric colleagues. And they all have a number of young individuals who are struggling with long COVID.

And some of the long COVID, I have to say, for younger individuals, can be devastating. The 12-year-old girl who, three months out, all her hair fell out. I mean, that is devastating to a young lady, to lose her hair. The soccer player who can't compete on the team anymore because after COVID she just never got her ability to exercise.

And so it can be really devastating for these young kids, not just getting sick, not just hospitalization, not just the risk of death, but a chunk of them, just never getting back to where they were before. Cognitive issues: Johnny, who won't pay attention. Sarah, who can't play soccer anymore. This is really devastating for the kids.

MARTIN: And the descriptor of long COVID has a different connotation when you're 12 than when you're 80. And the impact on the rest of your life.

GRIFFIN: Yeah, I mean, it really does. If it's four weeks, if it's eight weeks, and you still can't go back and do what you want to do, that's devastating. Eight weeks when you're a child, that's your lifetime. That is so, so long.

MARTIN: Well, thank you for dipping into the pediatric piece there.

(LAUGHTER)

GRIFFIN: No, no, certainly, I always like to say, children are at risk of COVID, so we can't forget about them. And then even, I'll say the indirect effect, a lot of children get COVID, then a parent ends up getting sick, a parent has a bad outcome, oh my gosh, how devastating to that child.

So, yeah, on so many levels COVID has really impacted our children.

MARTIN: It certainly has.

(SOUNDBITE OF MUSIC)

MARTIN: Any other parting words for us?

GRIFFIN: No, if you have any more questions, I'm certainly here and let me know. And hopefully, we'll be back for more discussions in the future.

MARTIN: Great, great. Well, thank you, Dr. Griffin. We really appreciate the time you spent with us. And for those of you listening, keep your learning about long COVID going by exploring the references and resources for this course in this episode's show notes. And listen a few moments longer to learn how you can obtain CE credit for this podcast.

Thank you for listening. This is Deborah Martin for Elite Learning.

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