

# BRANDS KEY RESOURCE FOR 11M NEW-TO-THERAPY COVID LONG HAULERS

## COVID Long Haulers: The New Face of Chronic Disease?

**PM360:** Hi, I'm Andrew Matthius, Senior Editor with PM360, welcome to the first in new three series podcast with Adheris Health. My guest today is John Ciccio, President CEO of Adheris Health. John is a proven strategic growth leader who has worked in the healthcare life sciences industry for over 20 years. John is responsible for overseeing all U.S. Operations of Adheris Health, a MedAdvisor company that provides dynamic patient management solutions built on an intelligent platform that activates patients, improves outcomes, and elevates brand performance. Welcome to the series, John.

**John Ciccio:** Thanks Andrew. It's a pleasure to be here.

**Today, John is here to talk about a substantial new issue that has arisen from the pandemic—long-haul COVID. It is now estimated that approximately 33% of COVID patients experience long-term symptoms, which adds up to approximately 11 million people who are struggling to recover from COVID. John, for those who don't know, can you explain a bit more about what long-haul COVID is and the lasting symptoms that some patients are experiencing?**

Sure, the world has been gripped by a devastating pandemic for over a year now. And as strides are made toward vaccinations and treatments to keep hospitalizations and deaths down, there is another crisis arising from the landscape and that's COVID long haulers. These are patients who had either asymptomatic cases or mild cases of COVID they're now experiencing long-term and life-altering symptoms for at least three months with many reporting lingering symptoms up to a year after onset.

And just for clarification, long-haul COVID is also referred to as post-COVID syndrome, post-acute COVID syndrome and long COVID.

As you mentioned, Andrew, the size of the population impacted by this phenomenon is very large—11 million people and growing. In addition, it's believed that these numbers are likely conservative given that many patients either weren't able to get tested due to lack of test availability or potentially received false negative test results. The other concerning trend is that the age group being impacted by long-haul COVID is much younger than the typical demographic of acute COVID cases. Long haulers are typically between the ages of 20 and 50 years old.

**At this point, do researchers have any insights into why certain people are suffering from these long-term symptoms?**

Well, even though researchers are still investigating the exact causes of long-haul, COVID a few hypotheses are emerging. And the first is that there are viral remanence still circulating the body post-infection, which means either that the

virus has found reservoirs in the body that are well-protected such as the gut or the brain, or that there are viral components left behind such as RNA or protein fragments that continue to elicit an immune response, essentially turning COVID into more of a chronic infection and causing ongoing inflammation and symptoms.

The second hypothesis is that COVID awakens other previously dormant pathogens. Because the immune system is weakened by COVID, it could allow other pathogens that were previously kept in check by a previously robust immune system to now start replicating again and causing havoc. So for example, 95% of the U.S. Population has been infected by the Epstein-Barr virus at some point in their lives and we're now seeing reports that COVID long haulers are experiencing reactivated cases of Epstein-Barr.

Third, hypothesis is that the immune system is malfunctioning basically, meaning that COVID patients have now developed an autoimmune disorder post-infection where the body's immune system starts to attack itself. Fourth, is that the gut microbiome is being thrown out of balance. So the microbiome, which consists of trillions of microorganisms in the body is such an important part of health when it's in balance. However, when it's out of balance it can cause negative health effects. In fact, a recent study found that COVID patients had a dysbiotic gut microbiome, even after the virus had left their respiratory tract.

And finally, and yet another hypothesis suggests that the virus is causing long-term injuries to organs and body systems. The patients treated for COVID in the ICU can experience what's known as a post-intensive care syndrome and that results in extended symptoms and side effects after hospitalization. And for those who were not hospitalized, COVID could be causing scarring to organs, such as the heart or the lungs, as well as systemic inflammation also resulting in ongoing symptoms. Two recent studies show that 70% of patients had at least one organ impairment, four months after the onset of their initial COVID symptoms. Meanwhile, lung recovery studied over a month after hospitalization showed that 33% of patients had scars caused by tissue death.

**So, given the multiple hypotheses into the reasons for it, is there any standard of care or guidelines for how doctors or patients themselves can treat long-haul COVID?**

Unfortunately, not at the moment, many are anxiously waiting for the CDC to issue their guidance on how to treat long-haul COVID. And in parallel, researchers are racing to understand COVID and its long-lasting health impact. However long haulers are being faced with the daunting day-to-day reality of trying to manage endless and changing symptoms and potentially entering into multiple new chronic disease states, basically on their own. Many long haulers

report feeling marginalized by the healthcare system and they struggled to get the care and support they need to resolve their symptoms. So with no current standard of care, these patients are left unable to work or function as they had been pre COVID.

**What kind of impact is this having on the healthcare system? And are there any changes that need to be made to the system in order to better help these patients in the long term?**

Yeah, that's a great question. The U.S. is already grappling with the growth of chronic disease and its implication prior to COVID, right? So 90% of our three and a half trillion dollars in annual healthcare spend goes toward chronic and mental health conditions. And COVID is now adding to that burden and this highlights the need for more investment in better chronic care management, including prevention. It's also putting a spotlight on the shortfalls of our current healthcare system.

Patients are desperately seeking answers for conditions, ranging from brain fog and fatigue to stroke, heart attacks, hypertension, POTS, autonomic nervous system dysfunction, type 2 diabetes onset, and then even to the truly bizarre, we've seen reports of patients' teeth randomly falling out. And most of these, symptoms are not easily diagnosed and many times cannot be quantified on existing tests, which has led to patient frustration and a never-ending pursuit of finding the right doctor or the right specialist who might be able to help them. What they have found though, is a voice on Facebook in groups, such as Survivor Corps, where they can share insights and recommendations gleaned from specialists across the country. But most of all, they've built an online social community out of necessity that provides peer support.

All that said on a positive note, experts in leading healthcare systems have identified the need for post-COVID clinics that bring together interdisciplinary teams for integrative care. And several of these have opened their doors to patients and have seen some success with this approach. Part of the challenge for patients though, is that the prerequisite for an appointment is proof of a positive test, which a decent part of this population doesn't have. And so they're currently denied treatment as a result. And another challenge for these clinics is that they're overrun with cases and they reached their maximum case load very quickly. So it will be interesting to see how these clinics evolve for inclusion of all patient statuses, how they plan for expansion, and how they might bring this care approach to other puzzling chronic conditions, such as chronic fatigue syndrome, fibromyalgia, and Lyme disease, among others.

**So, given some of the challenges these patients are facing, is there anything those in the life sciences industry can do to better help COVID long haulers?**

So, while both patients and providers await the anticipated CDC guidelines for treating COVID long haulers, we need to marshal our existing collective resources to help these patients in the interim and beyond. Life sciences brands have great resources for new-to-therapy patients that could be so useful to this patient population and in many cases had no prior health issues. So, providing brand and condition education, connecting patients to patient assistance programs or support communities, and coordinating communication programs to include healthcare providers, which includes pharmacists as well as physicians, could go a long way in supporting these patients.

**Is there any kind of examples you can share of something that companies in life sciences space are already doing to help these patients?**

You know, honestly, we're not seeing too much today, but I think that taking all of the resources that these stakeholders have, right, that pharma manufacturers have, that the pharmacies have, and that groups like us have, we know that there's an opportunity to get the right education into patient's hands. I think it's just a matter of understanding the condition better and trying to follow the CDC guidelines to make sure that we can put together the appropriate treatment plan.

**Is there anything that can apply to other chronic diseases that patients face and do kind of have symptoms over a long period of time?**

Absolutely. I mean, you know, we've worked with lots of chronic conditions, pretty much runs the gamut, right? High cholesterol, hypertension, diabetes, asthma, you name it. And, what we see is a real deep understanding, not only of any medications you might be taking, but also the condition itself, what causes it, what symptoms to expect, how to treat side effects and manage side effects, the diet and lifestyle tips/exercise tips that can help you manage your condition from a more holistic perspective, right? Those are the types of education that can be most impactful and coupling that with bringing that information from a trusted source, such as a healthcare provider, like a doctor or a pharmacist, really gives it credibility and gets the patient's attention and takes advantage of that trusted relationship. And we've seen that work be very successful across many chronic conditions as I mentioned.

**Before we go, is there anything else you want to add about the impact of long-haul COVID and what else the industry can do to better support these patients moving forward?**

Sure. So COVID has left an indelible mark on society in so many ways, as we know. We'll continue to move forward every day toward a new normal, and what we need to do is to ensure that no one's left behind, that all COVID patient populations feel validated and that they're provided the best level of care and support. And for those suffering long-term effects, we need to focus on creating higher quality of life. So at Adheris Health, in particular, we're looking forward to being part of the solution by partnering with life science brands to get resources and information into the hands of patients and providers, delivering customized patient support to drive a positive patient experience is something we've done for almost 30 years now. And the time has never been more relevant for this type of support than it is now.

**Alright, John, thanks so much for joining us to talk about this topic.**

Thank you very much for having me.

**Once again, that was John Ciccio, President & CEO of Adheris Health, a MedAdvisor company, discussing long-haul COVID. In the next edition of our series, we will discuss the topic of paper sends its warm regards. Keep an eye out and thanks for listening.**