

# COVID's Link to a Sharp Increase in POTS

Analysis by [Dr. Joseph Mercola](#)

✓ Fact Checked

April 18, 2023

## STORY AT-A-GLANCE

- › Postural orthostatic tachycardia syndrome (POTS) is not a new diagnosis, but experts believe there are at least 1 million new patients with the condition as a result of COVID and the shots
- › The condition is a result of poor synchronization between several bodily systems. The primary symptoms are orthostatic intolerance, triggering low or high blood pressure, lightheadedness, fainting and trouble focusing
- › The debilitating autonomic nervous system symptoms are long-lasting, life-changing and can mimic anxiety, which makes getting an accurate diagnosis and treatment challenging
- › A group of leading critical care specialists started the Front Line COVID-19 Critical Care Alliance (FLCCC) and have developed an effective treatment protocol for COVID long-haul symptoms after infection and adverse events after the shot

Long COVID, also known as long-haul COVID, chronic COVID or long-haul syndrome, refers to symptoms that persist for four or more weeks after an initial COVID-19 infection.<sup>1</sup> Signs and symptoms of long COVID include<sup>2</sup> fatigue, shortness of breath, joint pain, memory, concentration or sleep problems, fast or pounding heartbeat, dizziness and depression or anxiety.

These symptoms result from damage to your lungs, immune system, mitochondria, heart and nervous system.

According to board-certified internist and cardiologist Dr. Peter McCullough, a paper presented by Dr. Bruce Patterson at the International COVID Summit in Rome, Italy, September 12 to 14, 2021, showed that in “individuals who’ve had significant COVID illness, 15 months later the s1 segment of the spike protein is recoverable from human monocytes.” He added:<sup>3</sup>

*“That means the body literally has been sprayed with the virus and it spends 15 months, in a sense, trying to clean out the spike protein from our tissues. No wonder people have long COVID syndrome.”*

Another symptom of long-haul COVID-19 is postural orthostatic tachycardia syndrome (POTS) for which there is no cure and one- to two-year waiting lists to see physicians who have experience treating the condition.<sup>4</sup>

## **POTS Is Not a New Diagnosis**

In a paper<sup>5</sup> published in March 2021, just one year after the World Health Organization declared the COVID-19 pandemic, scientists recognized that the number of doctors with experience caring for patients with POTS was insufficient for the patient volume that existed before COVID-19.

At that time, the waiting lists could be as long as 12 months or longer and integrated multidisciplinary care was rarely available. Lauren Stiles, president of Dysautonomia International, spoke with a reporter from The Washington Post,<sup>6</sup> estimating that the number of people with POTS had at least doubled since March 2020, yet the number of physicians with experience treating the condition had stayed the same.

“They were overwhelmed and flooded long before COVID. We need to increase the amount of experts in this because it wasn’t enough before COVID, and it’s certainly not enough now,” she told the Post.

## **Incidence of POTS Rises Significantly After Infection**

According to McCullough, the disorder is the result of poor synchronization between several systems in the body that triggers a variety of symptoms.<sup>7</sup> Before COVID-19, doctors knew that POTS could be triggered by other conditions, most commonly Type 2 diabetes.<sup>8</sup>

Other conditions that increase the risk of secondary POTS include amyloidosis, sarcoidosis, lupus, chemotherapy, alcoholism and heavy metal poisoning. The primary symptom is orthostatic intolerance. When an individual has been lying down or sitting and rises to stand there is a lower volume of blood that returns to the heart, which results in lightheadedness or fainting.<sup>9</sup>

The condition affects mostly women and, according to the National Institute of Neurological Disorders and Stroke, the cause is still unknown. The symptoms are not limited to lightheadedness and fainting and in many cases are initially confused with anxiety.<sup>10,11</sup>

<b>Brain fog or trouble focusing</b>	<b>Heart palpitations</b>
<b>Racing heart rate</b>	<b>Severe or long-lasting exhaustion or fatigue</b>
<b>Nervousness or anxiety</b>	<b>Nausea and vomiting</b>
<b>Shakiness</b>	<b>Excessive sweating</b>
<b>Shortness of breath</b>	<b>Headaches</b>
<b>Feeling sick</b>	<b>Exercise intolerance</b>
<b>Pale face and purple discoloration to limbs lower than the level of the heart</b>	<b>Chest pain</b>
<b>Bloating</b>	<b>Disrupted sleep</b>

These autonomic nervous system symptoms are long-lasting and life changing. As cardiologist and POTS specialist at Rochester Regional Health, Dr. David R Fries, described to The Washington Post, “When the autonomic nervous system is not functioning properly, any or all of those things can go a little haywire.”<sup>12</sup>

*“There’s an element of dismissiveness and misogyny in the room. The POTS demographic is women who, for the most part, look pretty well,”* said Satish Raj, a cardiac sciences professor and POTS expert at the Libin Cardiovascular Institute at the University of Calgary.<sup>13</sup> *“They complain that their heart is racing, and I think that gets dismissed as anxiety a lot.”*

Cardiologist and professor of medicine at UC San Diego School of Medicine, Pam Taub, is researching post-COVID POTS for the National Institutes of Health. She believes there are at least 1 million or more new patients because of COVID.<sup>14</sup> Although the condition has been recognized for the last two decades, there is little funding from the National Institutes of Health.

An analysis<sup>15</sup> published before COVID-19 found, on average, POTS received \$1.5 million for research each year while other conditions commonly found in women received much more. For example, multiple sclerosis received \$118 million, and lupus received \$127 million in research dollars.

## **Study Shows Vaccination Also Increases Risk of POTS**

A study<sup>16</sup> published in Nature Cardiovascular Research in December 2022 demonstrated that the spike protein from the COVID-19 jab can also increase the risk of POTS. The researchers began with the understanding that POTS had been described after infection with SARS-CoV-2, but there was limited data on the relationship between POTS and the COVID-19 shot.

The researchers studied a cohort of 284,592 individuals who had been vaccinated and found that the odds of the participants developing symptoms of POTS were higher in the 90 days after receiving the experimental shot than in the 90 days before exposure.

In a second cohort of 12,460 people who had documented SARS-CoV-2 infection, data showed that the incidence of POTS was five times higher after infection than after receiving the COVID-19 jab.<sup>17</sup> Although the incidence of POTS was lower after vaccination than after infection, in the cohort that received the shot, researchers found it was the third highest adverse event after the shot.

These adverse events included, in descending order, myocarditis, dysautonomia, POTS, Mast Cell Activation Syndrome and urinary tract infection. The data showed 62% of the participants received the Pfizer-BioNTech shot, 31% received Moderna and 6.9% received Johnson & Johnson. Less than 0.1% received other vaccines including Novavax and AstraZeneca.

In the vaccinated cohort of 284,592 individuals, 1,924 developed POTS-associated diagnoses. The data showed these patients had a similar demographic and shot types when compared to the overall population. In those that received a POTS-associated diagnosis, 59% received the Pfizer vaccine, 35% received Moderna and 6% received Johnson & Johnson. McCullough noted:<sup>18</sup>

*"The spike protein on SARS-CoV-2 and flooding the system after vaccination damages neurological tissue, the adrenal glands, and the heart. The end result can be inappropriately elevated heart rate and either low or high blood pressure causing dizziness. I have seen cases of syncope with facial trauma as a result of this bothersome condition.*

*Since most children and adults in the US have recovered from COVID-19, there is no reason to take additional vaccines and risk POTS, myocarditis, or both."*

## **Athletes Sidelined and Told They Suffer From Anxiety**

Even though the diagnosis has been recognized for nearly two decades, many health care providers are still unaware and dismiss the symptoms as anxiety. Unfortunately, the number of patients whose symptoms have been dismissed and who have not been

heard has only grown in the last two years as the number of people with POTS has exploded.

Most visible are the elite athletes who have suffered from adverse events and permanent damage following the COVID-19 shot. In June 2021,<sup>19</sup> professional mountain bike racer Kyle Warner was 29 years old and at the peak of his career when he received his second dose of Pfizer's COVID-19 injection. The reaction was so severe that by October he was still spending most of his days in bed, overwhelmed by mental and physical exertion.

Warner shared the details<sup>20</sup> of his experience with John Campbell, a retired nurse educator based in England. In November 2021, he headed to Washington to get the word out that people are being misled, and the COVID shots are not as safe as people have been led to believe. In his 20s and in peak physical form, he was severely harmed.

*"I believe where there is risk, there needs to be choice," he said. "People are being coerced into making a decision based on lack of information versus being convinced of a decision based on total information and transparency."*

His symptoms began after the second shot, including a heart rate spike to 160 beats per minute, which didn't come down. Also experiencing weakness and nausea, he went to the emergency room and expressed concern about myocarditis as a side effect of the MRNA injection. Instead, he was told he was having an anxiety attack.

After waiting for 3.5 hours, he was given a shot of nonsteroidal anti-inflammatory drugs to treat reactive arthritis. His heart rate had dropped to 110 beats per minute, nearly double his average heart rate. However, the doctor told him he was doing better and referred him to a psychiatrist for a "psychotic episode."

Warner is not the only athlete to suffer injury. There have been a slew of professional and amateur athletes that have collapsed and died on the field, yet mainstream media appear to take it in stride as if what is happening is completely normal.

But, as described by sports commentator Matt Le Tissier, this is far from normal. Le Tissier was a soccer legend<sup>21</sup> (a sport called football in the U.K.). His prowess on the field earned him the nickname "Le God" before leaving the sport to become a sports commentator, most recently with Sky Sports.

As he describes in an interview, he lost that job for speaking out and bringing attention to the large number of unexplained sudden cardiac deaths happening to professional and amateur athletes around the world.<sup>22</sup> They are opinions that one of his colleagues says are "better left unsaid."

Jeremy Chardy is a 34-year-old professional tennis player who also had a severe reaction to the COVID-19 shot. Unable to engage in training and intense activity, he expressed his frustration to The COVID World, saying:<sup>23</sup>

*"It's frustrating because I started the year really well. I was playing very good and then I went to the Olympic Games where I also felt very good. It's frustrating, especially that I don't have ten years left to play. I regret having the vaccine, but I could not have known that this would happen."*

While health officials remain silent about COVID-19 injection reactions, the growing number of reports of adverse reactions cannot be silenced forever. Websites like C19 Vax Reactions,<sup>24</sup> started by former Green Bay Packers offensive lineman Ken Ruettggers, whose wife Sheryl suffered a severe neurological reaction to Moderna's COVID-19 shot, exist online for people to share their stories.

## **Tips to Help Recover From Spike Protein Injury**

One group of leading critical care specialists started the Front Line COVID-19 Critical Care Alliance (FLCCC) in March 2020 to help prevent and treat COVID-19 as well as help patients take control of other areas of their health.<sup>25</sup> As part of that mandate, they developed the I-Recover program to help patients recover from long haul COVID symptoms and damage from the COVID shots.

According to the FLCCC, up to 80% of patients can experience prolonged illness after infection and many of those same symptoms are common in people who are injured by the vaccine. Both long-haul symptoms from the infection and vaccine injury “are considered manifestations of “spike protein-related disease,” with a significant overlap in symptoms, pathogenesis, and treatment.”<sup>26</sup>

Unfortunately, the combination of the COVID-19 shot and infection complicates the issue since the symptoms of injury are exacerbated by an acute infection. According to the FLCCC,<sup>27</sup> treatment for post-vaccine syndrome is complex and should be individualized to the presenting symptoms and disease syndromes.

Early treatment is essential and not all people will respond equally to the same intervention. If treatment is delayed, the response can be weaker. Because there are no published reports detailing treatment, the approach developed by the FLCCC is based on principles of pharmacology, clinical observations and feedback from patients. The approach is constantly being updated as new data emerges.

The core issue is long-lasting immune dysregulation, so the goal is to restore a healthy immune system and help the body to heal itself. The program for post-vaccine treatment is based on autophagy to help rid the cells of the spike protein and interventions that limit the pathogenicity of the protein. The FLCC website<sup>28</sup> has information to help, including the treatment protocol and a list of doctors who use it and can help guide you through this journey.

## Sources and References

---

- <sup>1</sup> [Centers for Disease Control and Prevention, Long COVID or Post-COVID Conditions](#)
- <sup>2</sup> [Mayo Clinic, COVID-19 Long Term Effects](#)
- <sup>3</sup> [YouTube, February 10, 2022, min 6:05](#)
- <sup>4, 6, 12, 13, 14</sup> [The Washington Post, February 27, 2023](#)
- <sup>5</sup> [Clinical Autonomic Research, 2021;31\(3\) Section Health system impacts of Long-COVID POTS](#)
- <sup>7, 18</sup> [Courageous Discourse, December 15, 2022](#)
- <sup>8</sup> [Cedars-Sinai, Postural Orthostatic Tachycardia Syndrome](#)
- <sup>9</sup> [National Institute of Neurological Disorders and Stroke, Postural Tachycardia Syndrome](#)
- <sup>10</sup> [Cleveland Clinic, Postural Orthostatic Tachycardia Syndrome, What are the symptoms?](#)



- <sup>11</sup> Johns Hopkins Medicine, Postural Orthostatic Tachycardia Syndrome, What are the symptoms
- <sup>15</sup> Autonomic Neuroscience, 2021;235(102836) Section 8: Research Funding
- <sup>16</sup> Nature Cardiovascular Research, 2022; 1
- <sup>17</sup> Nature Cardiovascular Research, 2022; 1 Abstract
- <sup>19</sup> The Defender, November 5, 2021
- <sup>20</sup> YouTube, October 21, 2021
- <sup>21</sup> YouTube, July 17, 2019
- <sup>22</sup> Mirror, September 23, 2022
- <sup>23</sup> The COVID World, September 24, 2021
- <sup>24</sup> C19 Vax Reactions
- <sup>25, 26</sup> FLCCC, I-Recover - Long COVID Treatment
- <sup>27</sup> FLCCC, I-Recover Post Vaccine Treatment Protocol
- <sup>28</sup> FLCCC