

Long-COVID Autonomic Dysfunction

Do you know someone who had COVID-19 who has not fully recovered? Do they have one or more of these symptoms? If so, they may have recovered from COVID-19 but are suffering with Long-COVID Autonomic Dysfunction.

WHAT IS LONG-COVID AUTONOMIC DYSFUNCTION?

Long-COVID, also known as Post-Acute COVID Syndrome, is the development of chronic and potentially debilitating symptoms which may include fatigue, cognitive impairment, weakness, headache and dizziness among many others. Symptoms of Long-COVID occur in multiple organ systems and present heterogeneously following an acute COVID-19 infection. Several scientific studies have hypothesized the virus may be causing dysfunction of the autonomic nervous system¹²³.

"While most people with COVID-19 illness recover completely, others continue to experience chronic and diverse symptoms including autonomic manifestations," conclude members of the American Autonomic Society in a consensus statement⁴. Individuals with Long-COVID have continued symptoms after more than 12 weeks following an acute infection⁵. In a report of 20 patients with Long-COVID Autonomic Dysfunction 60% were unable to return to work 6-8 months following the initial illness⁶. Importantly, most individuals who were properly diagnosed and treated for autonomic symptoms reported some degree of improvement.

THE PROBLEM: POTENTIAL FOR A SECOND PUBLIC HEALTH CRISIS

Prior to the COVID-19 pandemic, medical centers specializing in autonomic medicine were already short on resources with wait times varying from 6-12 months. With the emergence of Long-COVID Autonomic Dysfunction, a large number of new patients are currently being referred to the same autonomic specialty centers. There is now enormous pressure put on these organizations as well as community-based healthcare professionals to recognize, diagnose and treat the growing number of patients. Long-COVID Autonomic Dysfunction has the "potential to produce a second public health crisis on the heels of the pandemic Reports of Long-COVID Autonomic itself."7 Dysfunction are being published across the globe including research from North America, the United Sweden⁹, Malaysia,¹⁰ Kingdom⁸, Argentina,¹¹ Czech Republic¹² and Oman¹³. Developing a greater understanding of Long-COVID Autonomic Dysfunction including research investments about the progression, pathophysiology and treatments will be imperative in coming months and years.

EDUCATION IS THE SOLUTION: YOU CAN HELP!

Resources to educate community-based healthcare professionals and their patients/families about Long-COVID Autonomic Dysfunction will be crucial to reduce the growing burden on our health care system. The Dysautonomia Project has created a portal on our website to help healthcare professionals learn more about this growing patient population.

We recommend all healthcare professionals be equipped to do 3 things:

- 1 Understand and recognize Long-COVID Autonomic Dysfunction
- 2 Appreciate the, sometimes, disabling symptom burden felt by patients and their families
- 3 Diagnose and manage cases at the local level

We also recommend that all healthcare professionals including nurses and therapists familiarize themselves with Long-COVID Autonomic Dysfunction to provide supportive care.

You can help by spreading the word about Long-COVID Autonomic Dysfunction with anyone you know who provides healthcare in your community. Encourage them to visit our website at www.TheDysautonomiaProject.org/LCAD.

For more information about Long-COVID Autonomic Dysfunction including links to scientific articles on the topic visit:

www.TheDysautonomiaProject.org/LCAD.

DO YOU KNOW SOMEONE SUFFERING WITH THESE SYMPTOMS?

- Fatigue Cognitive Impairment Weakness
- Headache Dizziness Shortness of Breath
- Palpitation
 Chest Discomfort
 Sleep

Disturbance • Difficulty Standing • Abdominal

Pain • Nausea • Diarrhea • Joint and Muscle Pain

- Anxiety or Depression Skin Rashes Pins &
- Needles Feeling Earache or Ear Ringing

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³ Goldstein, David S. The Extended Autonomic System, Dyshomeostasis, and COVID-19. Clin Auton Res. 2020 Jul 22: 1-17.

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5 National Institute for Health and Care Excellence (NICE) (2021) COVID-19 rapid guideline: managing the long-term effects of COVID-19.

6 Blitshteyn S. and Whitelaw S. Postural Orthostatic Tachycardia Syndrome (POTS) And Other Autonomic Disorders After COVID-19 Infection: A Case Series Of 20 Patients. Immunol Res. 2021 Mar 30: 1-6.

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8 Mondelli, Valeria and Pariante, Carmine M. What can neuroimmunology teach us about the symptoms of long-COVID? Oxf Open Immunol. 2021 Feb 10.

9 Johansson, Madeleine, et. al. Long-Haul Post-COVID-19 Symptoms Presenting as a Variant of Postural Orthostatic Tachycardia Syndrome. JACC Case Rep. 2021 Apr 3(4): 573-580

10 Yong, Shin Jie. Persistent Brainstem Dysfunction in Long-COVID: A Hypothesis. ACS Chem Neurosci. 2021 Feb 17; 12(4): 573-580.

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12 Stefano, George B. Historical Insight into Infections and Disorders Associated with Neurological and Psychiatric Sequelae Similar to Long COVID. Med Sci Monit. 2021 Feb 26.

13 Al-Jahdhami, Issa, et. al. The Post-acute COVID-19 Syndrome (Long COVID). Oman Med J. 2021 Jan; 26.