

# Long COVID and Dizziness

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## Provider Fact Sheet

Produced by



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### Overview:

Long COVID is a range of symptoms that can last weeks to months after first being infected with the COVID-19 virus.<sup>1</sup> Symptoms can also appear weeks after the infection. Long COVID can happen to anyone who has had COVID-19 despite the ranges in severity of their symptoms.<sup>1</sup> There is an increasing relationship between Long COVID complaints and dizziness, especially when upright. The diagnosis of POTS requires excessive orthostatic tachycardia (heart rate increase of > 30 beats per minutes in adults [ $> 40$  beats per minute in patients age 12–19 years] within 10 minutes of assuming upright posture) in the absence of orthostatic hypotension, with associated symptoms of orthostatic intolerance, for at least 3 months.<sup>2</sup> At this time we do not need to wait 3 months to recognize dysautonomia as the cause of symptoms post COVID. The emerging situation is consistent with evidence of immunological injury to the brain, which has been described as a resulting “brain fog.”<sup>3</sup> POTS patients can present with a myriad of symptoms most commonly including lightheadedness (99%), tachycardia (97%), presyncope (94%), headache (94%) and difficulty concentrating (94%).<sup>4</sup> These symptoms are familiar to physical therapists as they are similar to the symptoms treated post-concussion, brain injury, and neurologic injury or illness.

### Symptoms:<sup>2</sup>

- Shortness of Breath
- Fatigue
- Exercise Intolerance
- Cognitive deficits (brain fog)
- Headache
- Dizziness on standing / Lightheadedness
- Racing heart / Heart palpitations
- Peripheral neuropathy
- Change in menstrual cycle
- Change in smell or taste

### Prevalence of Dizziness and Long COVID

Research is ongoing for the prevalence of dizziness and Long COVID but early studies estimate a prevalence of dizziness in 12% of patients who experience COVID-19 infection.<sup>5</sup>

### Management of Long COVID and dizziness<sup>6</sup>

1. Assess for the cause of dizziness. Physical therapy evaluation should include a screen for BPPV, vestibular hypofunction, oculomotor deficits, postural

orthostasis, motion and visually provoked dizziness, as well as static, dynamic, and reactive balance.

2. Use planning and pacing for neurologic fatigue with a multidisciplinary team.
3. Recommend lifestyle modifications for symptoms management.
4. Nervous system regulation techniques to include breath-work, yoga, tapping, visual drills.

### Vestibular Physical Therapy for Long COVID Dizziness

Treatment should be individualized based on examination findings. Key principles to incorporate include are:

1. Patient Education: Confirm that the patient understands the purpose of the interventions as well as the importance of lifestyle modifications to maximize brain health during rehabilitation.
2. Exercise Intolerance Training: Should include monitoring of heart rate and heart rate variability during exercise. It is recommended to start with swimming, cycling, or rowing programs if POTS is suspected.
3. Dual Task training: Can include balance and dynamic gait activities, sensory integration, and oculomotor and functional vision activities.
4. Evidence shows that vestibular PT is highly effective in various populations; therefore, it is likely that similar interventions will be successful with Long COVID individuals with dizziness and imbalance as long as other common comorbidities are addressed.

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