

# Persistent Postural Perceptual Dizziness (PPPD)

PPPD is described as a perception of dizziness, commonly described as a feeling of spinning, swaying, rocking, tilting, unsteadiness, or imbalance that is present for most days for at least 3 months. The diagnosis is under-recognized and can be difficult to describe. It can take many months and the correct specialist such as an Ears, Nose and Throat Specialist (ENT) or a Neurologist with vestibular training to diagnose the condition. The condition typically (but not always) develops after an event such as an upper respiratory infection (e.g., COVID infections) or head trauma.

The nervous system processes sensory information and sends billions of signals along the nerves in the body to communicate and control the coordination of the balance system. PPPD is understood as a disturbance between the body's awareness of its position and posture in relationship to the environment and interferes with smooth movements when walking or difficulty processing the interaction with the environment visually. The complex balance system made up of visual, brain, and the inner ear signals seems to stay on high alert and the sensation of dizziness evokes a strong physical and emotional reaction that is poorly understood.



Due to the either episodic or constant dizziness or feeling off balance, a common complaint is fatigue, which contributes to a difficulty playing or participating in activities typical for one's age. Symptoms may worsen or be provoked from motion and busy environments (e.g., in the hallways at school, grocery stores, or malls), smells or fumes, and complex visual stimulation (e.g., phones or screens). Because of the constant dizziness, children can complain of difficulty concentrating or experience a decrease in school performance.

The persistence of symptoms can have a significant effect on mood, with complaints of embarrassment, feeling tense, overstimulation and feelings of frustration, unhappiness, and anxiety with difficult or symptom-provoking activities like standing, walking, or riding a bike.

## Long Covid and PPPD

Long Covid or (PASC) Post-Acute Sequelae of Covid-19 is defined as a wide range of symptoms that can develop 4 to 12 weeks after initial SARS-CoV-2 infection. It is now understood that an individual could have multiple symptoms that affect different body parts or could have a single symptom. PPPD has been identified in about 6% of children with Long Covid and about 5% in the general pediatric population. Dizziness can present in multiple ways and is a symptom that is under recognized and widely misunderstood.

### Triggers of the dizziness or imbalance:

Position changes   Standing Quickly   Smells   Motion  
Menstrual Periods   Exertion   Fast Moving Images

### Management:

After a thorough history and assessment, the treatment may include a combination of medication, supplements, vestibular physical therapy, cognitive behavioral therapy, and a supportive community and school environment. Recovery progress is sometimes slow and in many cases function (i.e., the individual can do more activities) returns before symptom resolution (i.e., dizziness resolves).

## Top Takeaways of School Accommodations for Children with PPPD



Make a school response plan with guardian/parent/student/nurse/teacher to be aware of the students' personal signs and symptoms of distress and make an action plan for when they feel (or experience worsening) dizzy or off balance.



Check in with support person regularly.



Validate and support the student.



Allow extra time to transition in hallways to reduce overstimulation from a crowded environment and the noise/smells which may trigger worsening symptoms.



Develop either a nonverbal or verbal signal (that the teacher and student agree upon) when support or a break is needed or to indicate symptoms have worsened.



Flash pass to nurse.



Identify a safe area for a break or reduced stimulation to reset.



During breaks reduce sensory input from lights and noise, if able.



Encourage utilization of coping skills: deep breathing, grounding, re-centering, and distraction if symptoms emerge.



Discuss the need for a flexible schedule and testing accommodations as symptoms can emerge and be disruptive to the school day.

- Flare-ups can happen when ill or under stress or even without an identifiable trigger.
- Symptoms can be constant or come and go.

How is PPPD different than Postural Orthostatic Tachycardia Syndrome (POTS)? POTS symptoms are orthostatic in nature (occur and worsen with standing and improves with lying down) whereas PPPD tends to be more constant and triggered by busy environments. PPPD is less position-dependent although there can be fluctuation in symptoms with different positions. While PPPD is a separate diagnosis from Postural Orthostatic Tachycardia Syndrome (POTS) and Vestibular Migraine there can be overlap between these conditions and a patient may experience multiple types of dizziness.

**Work with your team to make a school plan for your unique symptoms.**