

When Conditions Overlap: PPPD, Vestibular Migraine, and Other Comorbidities

Vestibular disorders rarely exist in isolation. Many patients eventually discover that their dizziness, imbalance, or sensory sensitivities are linked not to a single diagnosis but to several overlapping conditions. This complex reality was the focus of a session at the Vestibular Disorders Association's Life Rebalanced Live virtual conference titled "When Conditions Overlap: PPPD, Vestibular Migraine, and Other Comorbidities."

The conversation brought together neurologists, Dr. Shin Beh, and Dr. Kristen Steenerson, for a discussion about diagnosis and treatment, followed by a patient panel sharing firsthand experiences navigating multiple conditions. Together, the session highlighted both the scientific complexity of overlapping vestibular disorders and the real-life challenges patients face when symptoms don't fit neatly into one diagnostic category.

Why Vestibular Disorders Often Occur Together

One of the first questions addressed during the session was why conditions such as persistent postural-perceptual dizziness (PPPD) and vestibular migraine so often occur together.

From a clinical perspective, diagnosing these conditions starts with careful attention to patient history and symptom patterns. The timing of symptoms, triggers, and associated features often provide the most important clues.

Vestibular migraine and PPPD share many symptoms but are typically distinguished by their pattern:

Vestibular migraine usually occurs in episodes that can last minutes to hours or even days. These episodes are often accompanied by migraine-related sensitivities, such as light sensitivity, sound sensitivity, or nausea.

PPPD, in contrast, tends to produce persistent or chronic dizziness, present most days and often triggered by an initial event such as a vestibular illness, panic attack, or migraine episode.

Although the diagnostic criteria attempt to separate these disorders, experts acknowledged that real patients frequently fall somewhere in between. In fact, the neurological pathways involved in migraine and PPPD overlap significantly, which helps explain why both conditions can appear in the same person.

The brain circuits involved in balance, threat detection, and sensory processing are deeply interconnected. When these networks become dysregulated, symptoms can spread across multiple systems.

The Role of Genetics, Hormones, and Brain Pathways

Another important theme in the discussion was biological predisposition.

Some individuals appear more vulnerable to developing migraine or PPPD because of genetic factors. Early clues may include:

- Motion sickness in childhood
- Anxiety sensitivity
- Strong sensory responses to movement or environments

Hormonal influences may also play a role. Vestibular migraine and related disorders occur more often in women, and many patients notice

symptoms emerging or worsening during periods of hormonal change, such as perimenopause.

Neurologically, migraine and PPPD share overlapping brain pathways involving sensory processing, neurotransmitters such as serotonin and dopamine, and the brain's fight-or-flight response system. When vestibular symptoms trigger the brain's fear response, the nervous system can become locked in a heightened state of vigilance that perpetuates dizziness and sensitivity.

Stress: Trigger, Amplifier, or Both?

Stress often enters the conversation when discussing vestibular disorders, and patients frequently feel frustrated when symptoms are dismissed as "just anxiety."

Experts in the session emphasized that stress is not the root cause of these disorders. However, it can act as both a trigger and an amplifier.

A helpful way to think about this is through the concept of a threshold. Each person's nervous system has a certain tolerance for sensory and emotional stimuli. When multiple factors lower that threshold—poor sleep, hormonal changes, illness, or existing vestibular problems—stress can push the system past its limit and trigger symptoms.

Importantly, stress itself is not inherently harmful. In fact, it can build resilience. The challenge arises when stress exceeds the brain's ability to regulate it effectively.

When Other Vestibular Conditions Enter the Picture

The discussion also explored two additional disorders that often overlap with migraine and PPPD: Meniere's disease and benign paroxysmal positional vertigo (BPPV).



Meniere's disease is characterized by episodes of vertigo accompanied by hearing symptoms such as fluctuating hearing loss, ear fullness, and tinnitus. Diagnosis requires objective evidence of hearing changes on a hearing test.

BPPV, on the other hand, is a mechanical problem caused by tiny crystals in the inner ear becoming displaced. This condition produces brief episodes of spinning vertigo triggered by specific head movements.

Both disorders can coexist with vestibular migraine. In fact, research suggests that people with vestibular migraine are two to three times more likely to develop BPPV, and approximately half of people with Meniere's disease also have migraine.

Understanding these relationships is critical because each condition requires different treatment strategies.

Treating Multiple Conditions at Once

Managing overlapping diagnoses requires a multifaceted treatment approach.

Clinicians emphasized that when patients have both episodic conditions (like BPPV or migraine) and chronic conditions (like PPPD), the first priority is often controlling the episodic triggers. Repeated attacks can keep the nervous system in a heightened state and prevent recovery from chronic dizziness.

Treatment plans typically begin with a broad assessment of "brain health" fundamentals, including:

- sleep quality
- nutrition
- hydration
- exercise

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- stress management

From there, therapies may include vestibular rehabilitation, behavioral strategies to regulate the nervous system, and medications when needed.

One key takeaway was that there is no single solution. Successful treatment often involves addressing multiple factors simultaneously.

Lifestyle Factors That Influence Symptoms

Lifestyle adjustments can play an important role in managing vestibular disorders, particularly migraine.

Regular sleep patterns are especially important. Rather than focusing on a specific number of hours, experts recommend maintaining consistent sleep schedules and avoiding irregular patterns that can trigger migraine attacks.

Diet can also influence symptoms. While migraine trigger foods vary widely between individuals, common recommendations include:

- limiting caffeine
- moderating alcohol intake
- reducing processed foods

Patients who choose to follow a structured diet often benefit from evidence-based patterns such as the Mediterranean diet.

However, clinicians cautioned against overly restrictive diets that can create unnecessary stress and reduce quality of life.

The Importance of a Multidisciplinary Care Team

Because vestibular disorders intersect with many body systems, treatment often involves a multidisciplinary team.



Core members typically include:

- vestibular neurologists or neuro-otologists
- vestibular physical therapists

Additional specialists may become involved depending on the patient's needs, including cardiologists, psychologists, psychiatrists, nutritionists, and exercise specialists.

Conditions such as postural orthostatic tachycardia syndrome (POTS), Ehlers-Danlos syndrome, and fibromyalgia can further complicate the picture, requiring collaboration across specialties.

When Medication Becomes Part of the Plan

While lifestyle changes and therapy can help many patients, medications are sometimes necessary.

Experts emphasized that needing medication is not a failure. Some conditions are strongly influenced by genetics or brain chemistry, and medication may be essential for controlling symptoms.

Migraine treatments may include several medication classes, such as:

- antidepressants
- anticonvulsants
- blood pressure medications
- CGRP-targeting therapies
- Botox injections

For PPPD, medications that influence serotonin and norepinephrine pathways are often used.

Treatment decisions are highly individualized, and doctors typically start with very low doses to minimize side effects.

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Supplements and Alternative Approaches

For patients who prefer to try non-prescription approaches first, several supplements have research supporting their use in migraine prevention.

Common options include:

- magnesium
- riboflavin (vitamin B2)
- coenzyme Q10

Vitamin D may also play a role, particularly in preventing recurrent BPPV.

However, clinicians cautioned that supplements in the United States are not tightly regulated, so patients should choose reputable sources.

Living with Overlapping Conditions: Patient Perspectives

The second half of the session featured patient panelists, Judi Rosenthal and Kayla McCain, sharing their personal experiences navigating multiple diagnoses.

Judi described a decades-long journey beginning in childhood with unexplained visual and balance disturbances. Over the years, she received numerous diagnoses—including Meniere’s disease, TMJ disorders, and autoimmune conditions—before eventually learning that systemic inflammation was underlying many of her symptoms.

Despite facing severe medical challenges, she described vestibular symptoms as the most difficult aspect of her illness.

Kayla recounted a sudden onset of dizziness in her twenties that initially led to emergency room visits and misdiagnoses. Eventually she was diagnosed with vestibular migraine and later discovered she also had

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PPPD after experiencing persistent visual bouncing and dissociation sensations.

Both stories illustrated a common theme in the vestibular community: diagnosis often unfolds gradually, and symptoms can evolve over time.

Why Fatigue and Brain Fog Are So Common

Fatigue was another topic that resonated strongly with patients.

Experts explained that when the vestibular system is impaired, the brain must devote far more energy to tasks that normally happen automatically—such as standing, walking, and navigating environments.

This shift from automatic processing to conscious monitoring can be mentally exhausting. Anxiety, poor sleep, medication effects, and other health conditions can further contribute to fatigue and cognitive difficulties.

Looking Ahead: Hope for the Future

Although vestibular medicine still has many unanswered questions, researchers are making progress.

New clinical trials are exploring treatments specifically for vestibular migraine, and emerging therapies—such as neuromodulation devices and CGRP-targeting medications—are showing promise.

Researchers are also investigating new biological pathways involved in migraine, including a signaling molecule called PACAP, which may lead to future treatments.

Perhaps most encouraging is the growing recognition that vestibular disorders are complex conditions requiring integrated care.

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Moving Forward with Understanding

The Life Rebalanced Live session on overlapping conditions underscored an important message: dizziness rarely has a single explanation.

For many patients, understanding their symptoms requires looking at the bigger picture—how migraine, chronic dizziness, nervous system regulation, and other health conditions interact.

While this complexity can feel overwhelming, it also opens the door to more personalized and effective care.

And for patients navigating these challenges, hearing both expert insights and patient stories can provide something equally important: the reassurance that they are not alone on this journey.

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