Perceptual and sensory dysfunctions in M.E. can include problems with processing sensory information and maintaining spatial orientation. Patients may experience spatial instability, disorientation, difficulty judging distance or movement, balance problems, dizziness, visual disturbances, hypersensitivity to light, sound, touch, or motion, and a sense of feeling “detached” from their surroundings. These symptoms reflect neurological and autonomic dysfunction and can worsen significantly after exertion or sensory overload.

Key Perceptual & Sensory Dysfunctions in ME/CFS

*Spatial Instability & Disorientation: Patients frequently experience feelings of being unsteady on their feet, disorientation, and spatial instability, which are often reported as feeling as though they are swaying or falling.

*Vision Dysfunction: Inability to focus vision, difficulty adjusting focus between near and far objects (sluggish accommodation), poor depth perception, and blurred vision are common.

*Sensory Overload & Sensitivity: Hypersensitivity to environmental stimuli is common, including light (photophobia), sound, touch, taste, smell, and temperature (poor temperature control).

*Perceptual Distortions: Some patients report difficulty navigating familiar spaces or distinguishing objects, sometimes experiencing the world as overwhelming or "too loud" and "too bright," which can trigger a "crash" or [Post-Exertional Neuroimmune Exhaustion] (PENE).

Physiological Basis

*Brainstem/Neurological Dysfunction: These symptoms are believed to be rooted in abnormalities of the brainstem and other regions that manage sensory input, motor control, and autonomic function.

*Orthostatic Intolerance: Spatial instability and dizziness often worsen when standing or sitting upright, suggesting a link to low cerebral blood flow (orthostatic intolerance).

*Neuroinflammation: Potential neuroinflammation (activated microglia/astrocytes) might contribute to these sensory changes.

Management and Mitigation Strategies

Managing sensory overload is essential, as these symptoms can directly trigger PEM—a severe, delayed worsening of symptoms after minor physical or mental effort.

*Sensory Environment Control: Utilize earplugs, noise-canceling headphones, and sunglasses (or darkened rooms) to manage light and sound sensitivity.

*Pacing: Avoiding sensory-rich environments (shopping centers, loud events) and breaking up activities to avoid overloading the nervous system.

*Vision Aids: Using eyeglasses with specific coatings or engaging with specialists for reduced visual focus issues.

*Occupational Therapy: A functional approach focusing on energy management and adapting to spatial/visual limitations.

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