Functional Dizziness

Physiotherapy Approaches — Behavioural Assessment, Graded Exposure, and CBT Integration

Vestibular Physiotherapy for Clinicians

Topic 08 of 12

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How to Use This Review

This literature review is part of the Vestibular Medicine for Physiotherapists series. It is written for physiotherapists with a special interest in vestibular rehabilitation. The review distils current evidence into a structured clinic-ready resource — read in a single 20-30 minute sitting, or use as a topic-specific reference. Body sections progress from mechanism and assessment through to rehabilitation and outcomes; callout boxes highlight pearls, pitfalls, snapshots, notes and cautions for rapid retrieval.

Five callout types appear throughout the document — Pearl (clinical insight), Pitfall (common mistake), Note (definition or framing), Caution (safety or red flag), Snapshot (quick summary). Each is colour-coded for visual scan-ability.

Callout Box Guide

Pearl: Pearls capture clinical insights worth memorising — they appear throughout the body of the review next to the most useful evidence for the clinic.
Pitfall: Pitfalls flag common mistakes — read these first if you have only five minutes with the document.
Note: Notes provide definitions or framing for key terms used in the section that follows.
Caution: Cautions flag safety concerns or red flags that demand immediate clinical action or onward referral.
Snapshot: Snapshots crystallise the section above into one or two memorable lines — useful for revision.

Contents

Functional dizziness is a common, treatable, and often missed cause of chronic dizziness [1,2]. Patients present with disabling symptoms despite normal vestibular testing, and the diagnostic delay frequently exceeds two years. Modern reframing as a network-level brain disorder — not a diagnosis of exclusion — has transformed both prognosis and rehabilitation strategy [2,10].

I. Introduction and Scope

Functional neurological disorder affects two to ten per hundred thousand and accounts for up to one third of dizziness clinic presentations [4,5]. Modern neuroimaging shows altered connectivity between sensorimotor, attention, and limbic networks [10,12]. Functional dizziness is no longer considered a diagnosis of exclusion but a positive-sign clinical entity in its own right [1,2].

This review is structured around four practical axes — distinguishing functional from structural and PPPD presentations, running the positive-sign assessment, structuring graded exposure with symptom-provocation titration, and measuring outcomes that drive both patient and referrer confidence.

Figure 1. Functional vs Structural Decision Tree

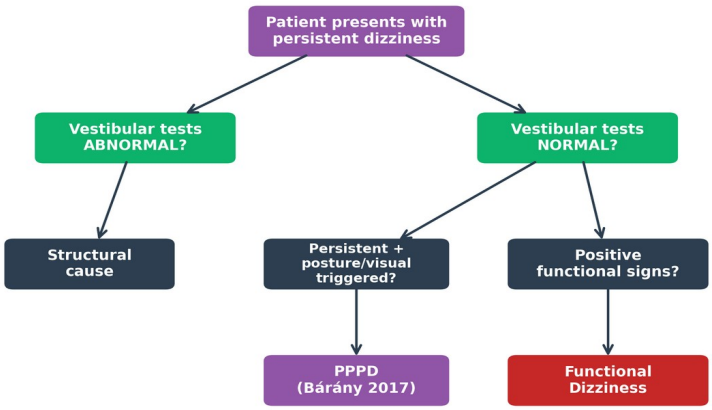

Figure 1. Functional vs Structural Decision Tree.

Source: Australian Dizziness Clinics, 2026.

II. Terminology and Communication

Avoid the term psychogenic — it implies mind-over-matter and immediately damages the therapeutic alliance [1,15]. Use functional — your nervous system is misinterpreting sensory signals — to convey both legitimacy and reversibility. Demonstrating positive signs to the patient at the point of diagnosis is therapeutically valuable [15].

Pearl: Use the traffic-light analogy — a malfunctioning traffic light on a safe road causes hypervigilance; fixing the light solves the problem. Patients respond to externalised mechanism descriptions far better than diagnoses of exclusion.

III. Predictive-Coding Mechanism

The brain generates predictions about expected sensory input from head and body movement, and updates those predictions when sensory reality matches. In functional dizziness, the predictive model is biased toward expecting threat — the system over-weights internal somatic signals and under-weights actual sensory feedback [6]. The result is persistent perception of imbalance even when peripheral vestibular function is intact.

This model has direct rehabilitation implications — exposure with attention away from the soma drives recalibration of the predictive model; somatic-attention exercises reinforce the maladaptive pattern [3,11]. Treatment must therefore engage motor activity while redirecting attention externally.

Figure 2. Predictive-Coding Mechanism Loop

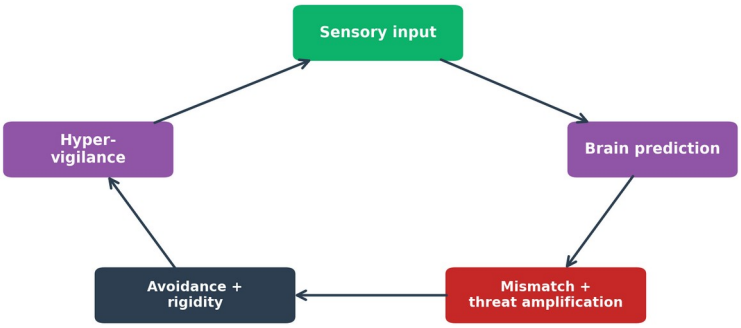

Figure 2. Predictive-Coding Mechanism Loop.

Source: Australian Dizziness Clinics, 2026.

IV. Clinical Features and Positive Signs

Functional dizziness presents with dramatic symptom variability, give-way patterns, and often striking dissociations between what the patient reports and what the examination demonstrates [1,13,14]. These are positive features of the disorder, not absence of pathology, and form the diagnostic backbone.

Pitfall: Continuing to exclude structural causes after multiple positive signs are present delays effective treatment and reinforces uncertainty for the patient.

V. Assessment Battery

Run a structured positive-sign battery — give-way weakness with preserved isolated strength, midline-crossing difficulty, distractibility on dual-task, functional tremor entrainment, and Hoover sign [3,8,15]. Each sign below relies on the same principle — a dissociation between voluntary effort and the automatic motor system that does not occur with structural disease. Demonstrating that dissociation to the patient at the bedside is itself part of the therapeutic intervention.

Give-way weakness with preserved isolated strength. The limb resists initial muscle testing then collapses suddenly under load — yet full strength returns when the same muscle group is recruited incidentally during a functional task (for example, the patient who cannot lift the foot to command but ambulates without foot drop). The collapse is intermittent, inconsistent on repeat testing, and does not follow any pyramidal, nerve root, or peripheral nerve distribution.

Midline-crossing difficulty. With the patient seated, ask them to touch your finger then their nose, then repeat the same task with the hand crossing the body's midline (right hand to left ear, left hand to right ear). A functional pattern shows hesitation, abortion, or disproportionate effort specifically at the midline crossing. Cerebellar or sensory ataxia, by contrast, produces uniform incoordination throughout the movement rather than a midline-specific failure.

Distractibility on dual-task. Functional tremor, sway, or unsteadiness diminishes or disappears when the patient is given a competing cognitive task — counting backwards from 100 in 7s, naming animals beginning with each letter of the alphabet, or sustained conversation about an unrelated topic. Structural movement disorders intensify under dual-task because cognitive load reduces compensatory attentional control. The functional pattern requires conscious top-down attention to remain present, so removing that attention removes the sign.

Functional tremor entrainment. Ask the patient to tap a specific rhythm with the contralateral hand at a frequency clearly different from their tremor (for example, tap once per second when the tremor is at five hertz). A functional tremor will entrain to the new frequency, pause, or change character mid-task. Parkinsonian, essential, and cerebellar tremors maintain their own frequency and waveform independent of voluntary contralateral movement, because they are generated by oscillator circuits that the contralateral motor task does not engage.

Hoover sign for functional leg weakness. With the patient supine, place your hand under the heel of the unaffected leg while the patient attempts to raise the affected leg against gravity. In organic weakness the unaffected heel presses firmly down into your hand — the involuntary synergistic contralateral hip extension that accompanies voluntary ipsilateral hip flexion is preserved. In functional weakness the unaffected heel does not press down during the attempted lift, yet pushes strongly down when the patient is then asked to lift the unaffected leg directly. The dissociation between absent voluntary effort and intact involuntary synergy is pathognomonic for a functional component.

Document the positive findings explicitly in the clinic note. They become the evidence base the patient can return to when symptoms flare and a structural diagnosis re-enters their thinking [15].

Figure 3. Positive-Sign Assessment Battery

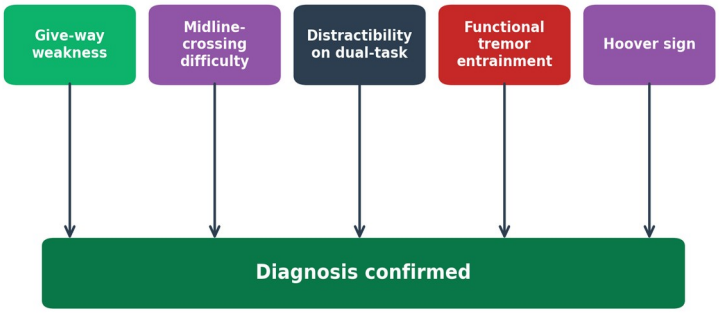

Figure 3. Positive-Sign Assessment Battery.

Source: Australian Dizziness Clinics, 2026.

VI. Communication and Diagnosis Delivery

The diagnosis conversation is therapeutic. Open with the neurobiology rationale — predictive miscalibration with threat amplification — and frame retraining as the path to recovery [2,15]. Avoid hedging language; explicit, confident communication of the diagnosis is itself part of treatment.

Snapshot: Diagnostic delivery determines engagement. Patients who hear the predictive model in plain language at session one are dramatically more likely to engage with exposure-based exercise than those who hear it after multiple negative tests.

VII. Movement-Based Rehabilitation

Engage the motor system in challenging functional activity without somatic-attention focus [3,11]. Distraction redirects attention away from threat detection and allows the predictive model to recalibrate from accurate sensory feedback. Sport, music, and dual-task activities work better than slow careful balance work for many patients.

Pearl: One functional win at session one — usually a task the patient feared and now completes — produces dramatically higher home-program adherence at week two.

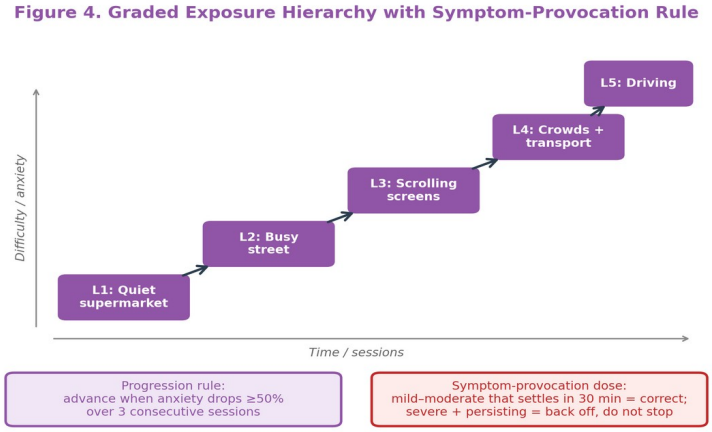

Figure 4. Graded Exposure Hierarchy with Symptom-Provocation Rule.

Source: Australian Dizziness Clinics, 2026.

VIII. Graded Exposure Protocols

Build a hierarchy with the patient — name the activities, score baseline anxiety zero to ten, progress when scores fall by half on three consecutive sessions [3,11]. Begin with contracted contexts and expand outward — household, neighbourhood, supermarket, public transport, work.

Symptom rule — mild-to-moderate settling within minutes is the dose; severe-and-persisting past thirty minutes means back off, not stop [11]. No symptoms means no signal — push the next item up the hierarchy.

IX. Multidisciplinary Collaboration

Refer to psychology when significant comorbid trauma, dissociation, depression, or anxiety are present [4,5,12]. Combined care almost always outperforms physiotherapy alone in published cohorts. Cognitive behavioural therapy has the strongest evidence base for adjunctive treatment in functional disorders [9].

Caution: Persistent severe avoidance, deteriorating mood, or emergent suicidal ideation are immediate triggers for psychiatric or psychology referral — do not continue physiotherapy in isolation.

Figure 5. Outcome Battery and MCID Thresholds

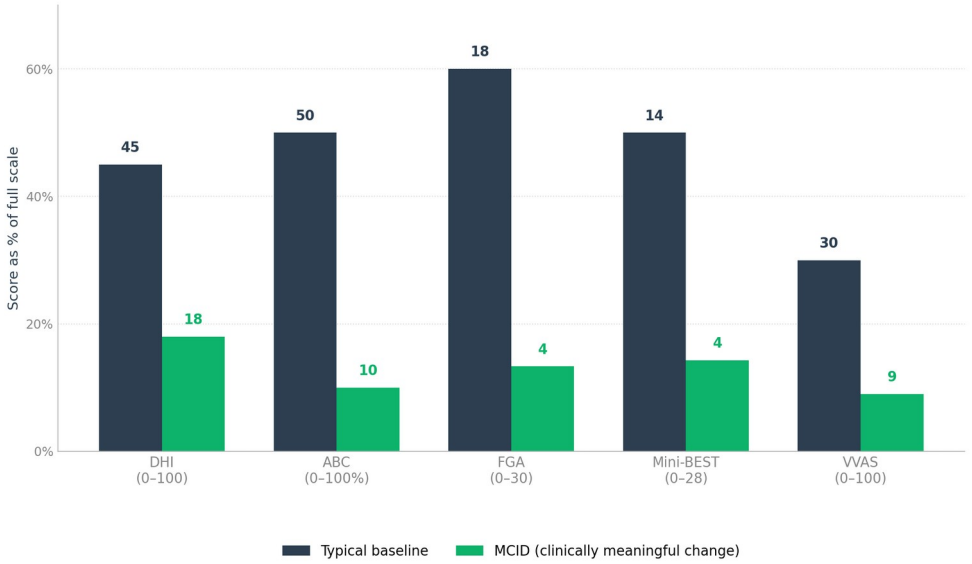

Figure 5. Outcome Battery and MCID Thresholds.

Source: Australian Dizziness Clinics, 2026.

X. Outcomes and Maintenance

Re-test every four to six weeks with DHI, ABC, and a brief mood screen [7]. Eighteen-point DHI drop and ten-point ABC gain define meaningful improvement. Plateaus call for review of distraction strategy, hierarchy pacing, or escalation to combined care.

Fifty to seventy percent show significant improvement or resolution with physiotherapy-led rehabilitation [3,11]. Numbers drive both patient and referrer confidence; share these data at diagnosis to set realistic expectations and counter therapeutic nihilism.

11. References

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Accuracy and Currency

While every effort has been made to ensure the accuracy and completeness of the information contained in this document at the time of publication, the field of vestibular medicine is rapidly evolving. Readers are encouraged to consult primary literature and current guidelines.

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