UNWINDING VERTIGO

A practical guide to dizziness, peripheral vertigo, and referral decisions

CONTINUING MEDICAL EDUCATION • PRIMARY CARE

Three learning objectives

01

Recognize the common otogenic patterns

Distinguish BPPV, Ménière’s disease, and vestibular neuritis/labyrinthitis.

02

Choose effective initial treatment

Use repositioning, vestibular rehabilitation, and timely specialty referral.

03

Recognize common non-ear mimics

Identify vestibular migraine, orthostasis, cardiac disease, and central neurologic causes.

Rogers et al., 2023; Edlow et al., 2023

DIZZINESS is not a diagnosis.

VERTIGO

False sensation of movement.
Classically: “the room is spinning.”

Can be peripheral OR central.

IMBALANCE/ATAXIA

Unsteady stance or gait.

May arise from vestibular, visual, sensory, or musculoskeletal deficits.
Ataxia is a warning sign for neurologic issues.

DIZZINESS

Lightheadedness, dizziness without vertigo, “fogginess,” pressure inside the head are all typically not otogenic.

Clinical pearl: “Vertigo” is not a diagnosis—ask what the patient actually feels.

Rogers et al., 2023; Strupp et al., 2022

The balance system is a four-legged chair

EAR / VESTIBULAR

BRAIN / CNS



MUSCULOSKELETAL

VISION

When any leg weakens, stability suffers. Multiple small deficits can add up.

When vertigo is an emergency

Any of these findings warrants urgent emergency / stroke assessment:

NEW ATAXIA	Cannot walk unaided; severe truncal instability
FOCAL NEUROLOGY	Diplopia, dysarthria, unilateral weakness/numbness
CENTRAL OCULAR SIGNS	Vertical or direction-changing gaze-evoked nystagmus
VASCULAR CONCERN	Acute severe continuous vertigo ± new headache/neck pain

HINTS is for trained examiners with continuous acute vestibular syndrome and nystagmus—not an all-purpose screen.

Edlow et al., 2023; Rogers et al., 2023

Three common otogenic vertigo syndromes

BPPV	Seconds to minutes; position-triggered	**Epley / vestibular PT**
MÉNIÈRE'S	Recurrent 20 min–12 h; transient hearing loss and plugged ear	**Audiogram + ENT; dietary discussion**
NEURITIS / LABYRINTHITIS	Continuous for days; ± acute hearing loss	**PT / time; urgent ENT if sudden hearing loss**

The same complaint ("dizzy") can require three very different treatment pathways.

Rogers et al., 2023; Strupp et al., 2022; Basura et al., 2020

History is everything – how you ask questions is everything.

01

TIMING

Seconds, minutes–hours, or continuous for days?

02

TRIGGERS

Head position? Standing? Spontaneous spells? Triggered by movement in the visual field?

03

ASSOCIATED SYMPTOMS

New hearing loss, tinnitus, headache, double vision, prodrome or mirgainous symptoms, weakness or ataxia?

Patient descriptions vary; timing and triggers are more diagnostically useful.

Rogers et al., 2023; Edlow et al., 2023

History is everything – how you ask questions is everything.

- Without using the terms dizzy or vertigo, can you describe how you feel?
- When you feel this way, how long does the spinning actually last?
- To make sure I'm correct: you're saying the room spings every second of every minute of that time?
- Does anything seem to trigger these episdoes? Does anything make them better or worse?
- Do you notice any worsened hearing or plugged ear that is NOT present when the dizziness is gone?
- Noteworthy symptoms: prodrome, light/sound sensitivity, headache or neck pain, personal history of migraine, childhood motion sickness, preceding head trauma, symptom recurrence.

Rogers et al., 2023; Edlow et al., 2023

Timing reveals the likely syndrome

PATTERN	DURATION	CLUE	CONSIDER
Triggered	Sec - Min	Rolling in bed; head positioning	**BPPV**
Episodic	20 min – 12 h	**Fluctuating** hearing or plugged ear	**Ménière**
Episodic	Seconds to days	Migraine history; photo/phonophobia	**Vestibular migraine**
Continuous	Hours – days and not recurrent	Spontaneous; nystagmus; ± hearing loss	**Neuritis / stroke / SSNHL**

Durations are typical and reliable, not absolute; neurologic danger signs override the pattern.

Edlow et al., 2023; Rogers et al., 2023; Lempert et al., 2022

Hearing loss changes the plan

NO NEW HEARING LOSS

If the pattern and examination support uncomplicated peripheral vertigo—and no red flags—manage in primary care.

- BPPV → Epley / vestibular PT
- Neuritis → supportive care / PT

SUDDEN NEW HEARING LOSS

Labyrinthitis

- Urgent ENT / audiologic evaluation
- Consider SSNHL treatment pathway
- If acute vertigo + central red flags → ED/stroke workup

Presence of hearing loss does NOT exclude a central cause.

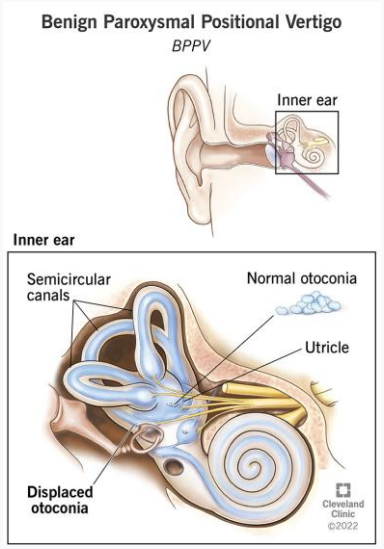
Newsted et al., 2025; Kitoh et al., 2024; Edlow et al., 2023

BPPV: displaced canaliths, predictable symptoms

CLASSIC STORY

- Rolling over in bed
- Head position
- Abrupt spinning that lasts sec-min
- No persistent focal neurologic deficit

WHAT IS HAPPENING?



Displaced otoconia enter a semicircular canal.

Saishoji et al., 2023; Rogers et al., 2023

Diagnose BPPV at the bedside

1

Start sitting

Turn head 45° toward the tested side

2

Lower to supine

Extend neck if safe; observe eyes. Do not need to slam the patient back

3

Look for response

Brief vertigo with rotational geotropic nystagmus

4

Repeat other side

If first test negative and suspicion remains

Cervical instability / morbid obesity/ severe neck mobility limits? Use modified testing or vestibular PT.

Edlow et al., 2023; Rogers et al., 2023

Treatment: canalith repositioning (Epley)

1

START

Sitting; head 45° to affected side

2

BACK

Lie back; head slightly extended

3

TURN

Rotate head to opposite side

4

ROLL & SIT

Roll onto shoulder; return upright

Perform when trained, or refer to vestibular physical therapy. Avoid routine meclizine for BPPV.

Saishoji et al., 2023; Edlow et al., 2023

Treatment: canalith repositioning (Epley)



Saishoji et al., 2023; Edlow et al., 2023

BPPV: treat, reassess, and know when to refer

PRIMARY CARE CAN

- Confirm the positional pattern
- Perform Epley if competent / appropriate
- Provide Brand-Daroff home instructions
- Refer to vestibular physical therapy
- Recheck persistent or recurrent symptoms

REFER OR RECONSIDER

- Significant cervical neck disease
- Persistent symptoms despite maneuvers
- Mobility / neck contraindications
- New hearing or neurologic symptoms

Big Mimic: Cervical Vertigo and Orthostatic Hypotension

Saishoji et al., 2023; Rogers et al., 2023

Orthostatic and cardiac dizziness: ask about standing

ORTHOSTATIC HYPOTENSION

Clue: lightheadedness or vertigo after standing—not classic brief positional spinning.

Check supine-to-standing BP / HR and volume status; review diuretics and antihypertensives.

Address reversible causes and fall risk.

CARDIAC DISEASE

Clue: presyncope, loss of consciousness, blackout episodes, palpitations, exertional symptoms, chest pain or syncope.

Check vitals, ECG and focused cardiac history; determine need for rhythm monitoring.

Emergency referral for high-risk syncope / ischemic symptoms.

Ménière’s: recurrent vertigo + fluctuating ear symptoms

CLINICAL PATTERN

- Spontaneous attacks: 20 minutes to 12 hours
- Fluctuating sensorineural hearing loss
- Aural fullness
- 90% unilateral; may progress over time
- Requires audiometric assessment
- Frequently “burns out”

Big Mimic: Vestibular Migraine

Variable duration, prodromal symptoms, history of migraine, headache, initiated by changes in visual field, other mirgrainous symptoms, decades of symptoms with no low frequency hearing loss

Think Migraine instead.

Basura et al., 2020; Rogers et al., 2023

Ménière's treatment: common practice ≠ strong evidence

COMMON INITIAL APPROACH

- Discuss sodium reduction – consider diuretic
- Explain trial data are sparse / very uncertain
- Order audiogram and refer to otolaryngology
- Use brief symptomatic treatment during attacks only (meclizine, valium)

EVIDENCE CHECK

2023 Cochrane review:

No placebo-controlled trial of commonly recommended salt or caffeine restriction was identified.

Referral opens additional options for refractory disease.

Webster et al., 2023; Basura et al., 2020

Vestibular migraine: an important non-ear mimic

CLUES

- Recurrent episodes lasting 5 minutes to 72 hours
- Migraine history, photophobia / phonophobia or aura
- Headache may be absent during vertigo episodes
- A leading cause of recurrent vertigo in adolescents and adults

PRIMARY CARE RESPONSE

Identify migraine pattern

Discuss sleep, hydration, trigger management

Use migraine treatment framework; refer to neurology when atypical/refractory

Lempert et al., 2022; Saniasiaya & Salim, 2023

Neuritis and labyrinthitis are not interchangeable

VESTIBULAR NEURITIS

Vertigo

NO new hearing loss

Supportive care + vestibular PT

No routine steroids indicated

LABYRINTHITIS / ACUTE AUDIOVESTIBULAR LOSS

Vertigo

NEW hearing loss / tinnitus

Urgent ENT + audiometry; exclude stroke

SSNHL steroid pathway

Strupp et al., 2022; Newsted et al., 2025

Vestibular neuritis: time, movement, rehabilitation

ACUTE DAYS

Hydration + nausea control when needed; use vestibular suppressants **only briefly** if severe.

EARLY RECOVERY

Mobilize as tolerated. Explain gradual central compensation over days to weeks.

IF PERSISTENT

Refer to vestibular physical therapy for gaze stabilization and balance exercises.

Routine steroids are NOT recommended for uncomplicated neuritis without hearing loss.

Strupp et al., 2022; Hall et al., 2022; Rogers et al., 2023

Sudden hearing loss + vertigo

1. **LOOK** — Check ear canal / tympanic membrane; assess hearing, neurologic exam and gait. Acute otitis media very rarely causes vertigo.
2. **REFER** — Urgent ENT / audiometry for suspected sudden sensorineural hearing loss.
3. **TREAT** — Early steroids may be offered in the SSNHL pathway, ideally coordinated with ENT.
4. **ESCALATE** — New ataxia, focal signs, severe continuous acute vestibular syndrome → ED / stroke evaluation.

The goal is to protect hearing while also ruling out central / vascular emergencies.

Newsted et al., 2025; Kitoh et al., 2024; Edlow et al., 2023

Neurologic mimics: recognize ataxia and stroke

NEW BALANCE DISORDER ≠ “JUST AN EAR PROBLEM”

Look for other neurologic or cardiac symptoms. Ask about preceding head trauma. Consider polypharmacy. Is this a balance issue or vertigo?

Posterior circulation stroke

Acute vestibular syndrome; may lack obvious weakness

Cerebellar disease

True incoordination, broad-based gait, persistent findings

Other neurologic disease

Demyelination, mass, medication / toxic effects

Edlow et al., 2023; Rogers et al., 2023

Primary care vs ENT vs emergency: a quick referral map

MANAGE IN PRIMARY CARE

Typical BPPV → Epley / PT

Likely neuritis with normal hearing + reassuring neuro exam → supportive care / PT

Migraine, orthostasis → targeted care

REFER TO ENT

Suspected Ménière's → audiogram + ENT

Sudden new hearing loss → URGENT ENT

Persistent (despite vestibular therapy) / atypical BPPV or ongoing vestibular symptoms

ED / STROKE PATHWAY

New severe ataxia

Focal neurologic signs / central nystagmus

Acute vestibular syndrome with vascular concern

High-risk syncope / chest pain

Edlow et al., 2023; Newsted et al., 2025; Rogers et al., 2023

Case 1: the room spins when I roll over

A 57-year-old reports 15-second spinning spells when turning to the right in bed. No hearing change, headache, ataxia, or neurologic deficit.

A. Head CT and meclizine

B. BPPV -> Epley

C. Immediate ENT referral

Saishoji et al., 2023; Edlow et al., 2023

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Case 2: I feel dizzy all of the time.

An 82 year old patient with a history of TIA two years ago, HTN, afib, cervical and lumbar spinal degenerative disease, cataracts, and peripheral neuropathy complains of feeling as if they're going to fall when they walk.

A. ENT referral: consider vestibular disoder

B. Multifactorial disequilibrium – consider PT

C. MRI to evaluate for stroke

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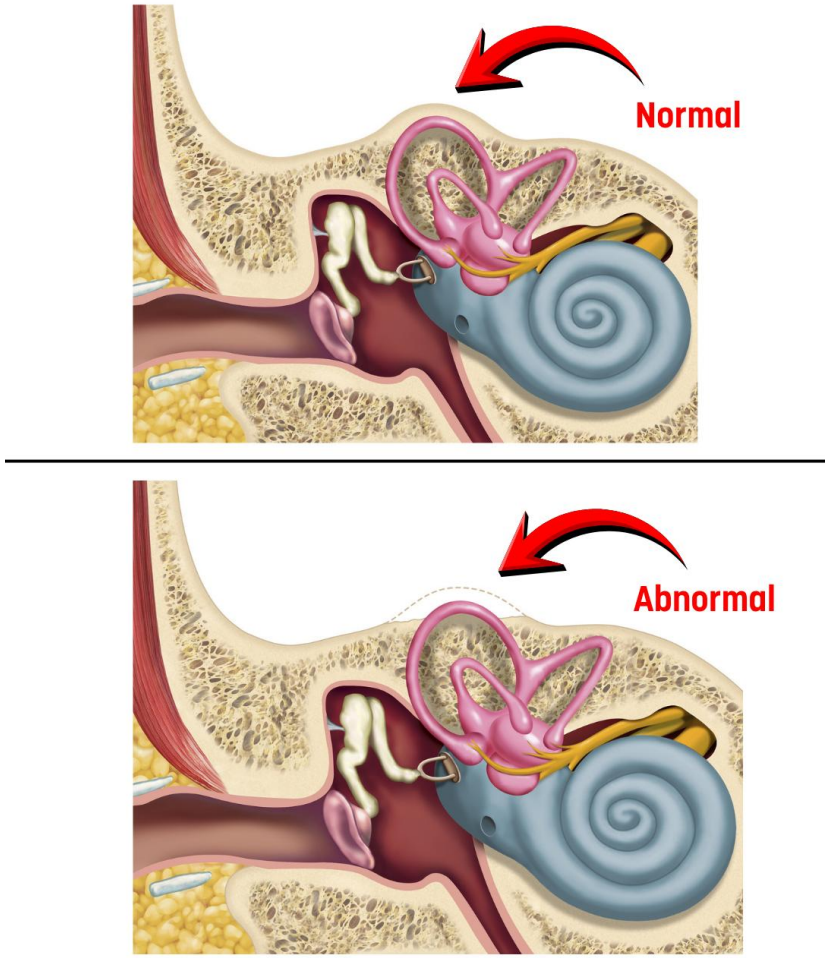
Unwinding vertigo: five actions that matter

1. Describe the symptom: spinning, imbalance, or difficulty walking.
2. Use timing + triggers instead of the words “dizzy or vertigo.”
3. BPPV: reposition, or refer for vestibular PT.
4. Ménière: audiogram + ENT; low sodium is customary, evidence weak.
5. **New hearing loss or central findings: urgent action—not routine follow-up.**

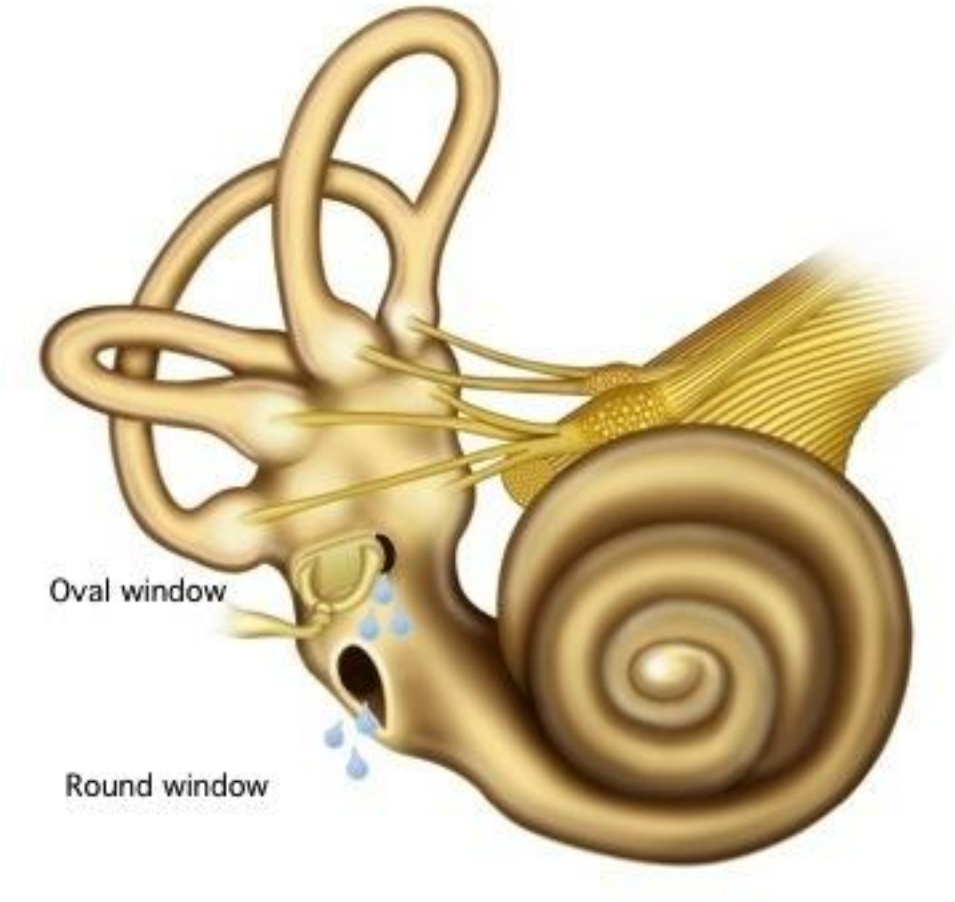
Carefully selected patients can be managed confidently in primary care.

Rogers et al., 2023; Edlow et al., 2023; Webster et al., 2023

Rare Causes: Superior Semicircular Canal Dehiscence Syndrome



Rare Causes: Perilymphatic Fistula



Questions?

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