Understanding Vestibular Migraine, Otologic Migraine & Ménière's Disease

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Part 1: The Key Points

- **Migraine is a brain sensitivity condition, not just a headache.** Your brain is more sensitive than average to everyday triggers. Many people with migraine never get a bad headache.
- **Triggers add up.** Poor sleep, stress, skipped meals, certain foods, alcohol, caffeine, weather changes, and hormone changes all add to a "bucket." When the bucket overflows (your threshold), symptoms start.
- **Your threshold is partly genetic.** You cannot change your genes, but you can lower your trigger load and, if needed, use medicine to raise your threshold.
- **Otologic (ear) migraine** happens when the sensitive brain affects the nerves of the ear. It can cause ear fullness, ringing, dizziness or unsteadiness, sound sensitivity, and ear pain or tenderness, often with a normal ear exam.
- **Ménière's disease** involves the inner ear itself. Classic attacks include spinning vertigo, hearing loss, ringing, and fullness in one ear, lasting hours.
- **These conditions overlap.** Many patients have features of both. Controlling migraine triggers often reduces Ménière's flares too.
- **Treatment has two steps:** (1) understand the condition and find your triggers; (2) if symptoms are frequent or constant, take a daily preventive medicine.
- **A sudden drop in hearing is urgent.** Call the office the same day. Early treatment gives the best chance of saving hearing.

Part 2: Understanding the Condition

Key Points

> - The migraine brain is a "sensitive alarm system."
> - Triggers stack up until they cross your personal threshold.
> - Symptoms can appear anywhere the brain's sensory signals go, including the ear.

More detail: What is migraine?

Migraine is a common condition in which the brain is in a state of increased sensitivity. A sensitive brain reacts more strongly to normal changes in the body and the environment. These changes are called **triggers**.

Think of a **bucket**:

- Each trigger adds water to the bucket.
- Your **threshold** is the height of the bucket. It is set mostly by your genetic makeup.

- When the water overflows, symptoms begin.

Most people do not have one single trigger. It is usually the **combination** of several triggers on the same day or days (for example, a poor night of sleep + a stressful day + a skipped meal + a weather change).

Once the threshold is crossed, the over-sensitized brain sends abnormal signals outward. This can produce:

- **Classic migraine symptoms:** headache, light sensitivity, sound sensitivity, nausea.
- **Other symptoms many people do not realize are migraine:** dizziness, motion sensitivity, brain fog, neck tension, and ear symptoms.

Many patients with vestibular or ear migraine have never had a "classic" migraine headache. This is normal and does not rule out the diagnosis. Many do have a family history of migraine, motion sickness as a child, or "sinus headaches" that were really migraine.

Common triggers

Category	Examples
Sleep	Too little, too much, irregular schedule, jet lag
Stress	Stress itself, and also the "let-down" after stress ends (weekends, vacations)
Diet	Skipped or late meals, dehydration, aged cheeses, cured/processed meats, MSG, artificial sweeteners, chocolate, citrus (varies by person)
Alcohol	Especially red wine and dark liquors
Caffeine	Too much, and also withdrawal when you miss your usual amount
Hormones	Menstrual cycle, pregnancy, perimenopause, hormone medicines
Weather	Barometric pressure changes, storms, heat
Sensory	Bright or flickering lights, screens, loud or busy environments, strong smells
Physical	Neck or jaw tension, teeth grinding, overexertion, illness
Medicines	Frequent use of pain relievers (see "Rebound" below)

Part 3: The Spectrum: Migraine, Otologic Migraine, and Ménière's

Key Points

> - These conditions exist on a **spectrum** and often overlap.
> - **Otologic migraine:** the nerves to the ear are affected by the sensitive brain.
> - **Ménière's:** the inner ear itself is affected, which can cause measurable hearing changes.

More detail

1. Migraine (classic): Headache, light and sound sensitivity, nausea.

2. Vestibular migraine / otologic migraine: The sensitive brain affects the balance and ear nerves. Symptoms may include:

- Ear fullness or pressure (often with a normal eardrum and normal pressure testing)
- Ringing or buzzing (tinnitus)
- Dizziness, often hard to describe: lightheaded, "off," rocking, floating, or unsteady, and sometimes true spinning
- Sensitivity to motion, busy visual environments (grocery stores, scrolling screens)
- Sensitivity to sound (normal sounds feel too loud or uncomfortable)
- Sensitivity to touch on or around the ear, or discomfort from otherwise harmless sensations such as cold air, wind, eyeglasses, or brushing the skin (**allodynia**)
- Pain or tenderness around the ear, jaw, or side of the head

Episodes can last minutes to days. Some people have a constant, low-level background of symptoms with flares on top.

3. Ménière's disease: The inner ear itself becomes involved. The inner ear contains both the hearing organ and the balance organ. A classic Ménière's attack includes:

- Spinning vertigo, typically lasting 20 minutes to several hours
- Hearing loss, usually in one ear and often in the low tones
- Ringing and fullness in the affected ear

Not every attack has every symptom. Some people get mainly hearing loss and fullness; others get mainly vertigo. Hearing changes and fullness can linger for hours to days after the vertigo settles. Over years, repeated attacks can cause lasting hearing loss in the affected ear, which is why we monitor hearing with hearing tests (audiograms).

How they connect: Many people with Ménière's also have migraine, and many people meet the criteria for both. Researchers believe the two share some of the same nerve and chemical pathways. In our experience, managing triggers and migraine sensitivity often greatly reduces Ménière's flares.

Note on terms: "Otologic migraine" is a practical term we use in the office to describe ear-centered migraine symptoms. The formal medical diagnoses you may see in your records are "vestibular migraine" and "Ménière's disease."

Neck tightness, stiffness, and occipital pain

Neck tightness and pain at the base of the skull are common with migraine. Sensory pathways from the upper cervical and occipital nerves connect closely with trigeminal pain pathways in an area called the **trigeminocervical complex**. Because these pathways share signals, migraine can be felt as neck pain or stiffness, and neck muscle pain can sometimes contribute to an attack. Massage, gentle stretching, and physical therapy aimed at the neck may help. However, when migraine is the main driver, neck symptoms often improve as migraine becomes better controlled. Not every neck problem is migraine; new severe neck stiffness, especially with fever or a new severe headache, needs urgent evaluation.

Ear pressure and TMJ (jaw joint problems)

Ear fullness or pain with a normal ear examination is sometimes attributed to temporomandibular joint (TMJ) dysfunction. **Migraine-related ear pressure can resemble TMJ symptoms**, so patients may receive a TMJ diagnosis when migraine is contributing to their symptoms. At the same time, TMJ problems are real and can coexist with migraine or act as a trigger through jaw pain, clenching, and muscle tension. Pain with chewing, jaw clicking or locking, or tenderness over the jaw joint may suggest a TMJ component. The two conditions are not mutually exclusive, and a normal ear examination does not by itself establish either diagnosis.

Allodynia: why wind, cold, or light touch may hurt

Allodynia means pain or marked discomfort from a sensation that normally would not be painful. During a migraine flare, some patients become unusually sensitive to wind or cold air touching the ear or face, wearing glasses, brushing their hair, or touching the skin around the ear. This can occur because the nervous system has become sensitized. It is a recognized migraine-associated phenomenon, although these sensations can have other causes as well.

Other conditions that sometimes occur with migraine

Migraine is associated with several other symptom patterns, including **irritable bowel syndrome (IBS)**, **postural orthostatic tachycardia syndrome (POTS)** or orthostatic intolerance, and **burning mouth or burning tongue symptoms**. Some patients also experience **visual migraine aura**, such as temporary shimmering lights, zigzag patterns, or blind spots; this is sometimes casually called "ocular migraine." These conditions and symptoms can coexist with migraine, but migraine does not explain every case. Improving migraine control may help some patients, while each condition may still require its own evaluation and treatment. New vision loss in one eye or a first-time visual disturbance should not simply be assumed to be migraine.

Part 4: Step 1: Understanding and Finding Your Triggers

Key Points

- When symptoms start or worsen, **look back over the past 12 to 24 hours.**
- Look for what was **different or unusual**, not just what you do every day.
- Expect to find **several** triggers adding up, not one.
- Keep a simple diary.

More detail: How to do a "look-back"

When you notice a flare, ask yourself about the previous 12 to 24 hours:

- How did I sleep the last night or two?
- Was I unusually stressed, or did a stressful period just end?
- Did I skip a meal, eat late, or eat something unusual?
- Did I drink alcohol? More or less caffeine than usual?
- Where am I in my menstrual cycle?
- Did the weather change?
- Was I in a loud, bright, or visually busy place? Lots of screen time?
- Was I sick, or did I overexert myself?

Write it down. After several flares, patterns usually appear. Bring your diary to visits; it makes appointments faster and more useful.

Simple daily habits that raise your "margin"

- **Regular sleep:** same bedtime and wake time, even on weekends.
- **Regular meals:** do not skip meals, especially breakfast.
- **Hydration:** drink water through the day.
- **Steady caffeine:** keep it moderate and consistent (or taper off slowly). Do not stop suddenly.
- **Regular exercise:** walking, cycling, swimming, or yoga, starting gently.

- **Stress management:** relaxation, mindfulness, counseling, or cognitive behavioral therapy can help.
- **For Ménière's:** many providers also recommend limiting salt and spreading salt intake evenly through the day.

Screen-related light sensitivity: FL-41 lenses

If screens, fluorescent lighting, or bright indoor lights worsen your symptoms, consider trying **FL-41 tinted lenses**, a rose-colored filter designed to reduce certain wavelengths of light associated with migraine-related photophobia. FL-41 lenses are available with or without a glasses prescription and may be helpful for computer use or bright workplaces. They are different from ordinary blue-light-filter glasses, and not everyone benefits. Adjusting screen brightness, reducing glare, taking visual breaks, and treating underlying migraine may also help. Avoid keeping your surroundings excessively dark all the time, as this may increase sensitivity to normal light.

Treating an attack early: rescue medicines

Preventive medicines reduce attacks over time, but **acute (rescue) medicines** are taken when a recognizable migraine attack begins. For migraine headache or familiar migraine-related head/ear pressure, treatment generally works best when taken **early in the headache phase**, rather than waiting until symptoms become severe. Follow your individualized treatment plan; a new or unusual headache or sudden hearing loss needs assessment rather than being assumed to be migraine.

- **Over-the-counter options** include ibuprofen (Advil/Motrin), naproxen (Aleve), acetaminophen (Tylenol), and combination products such as Excedrin Migraine (acetaminophen, aspirin, and caffeine). Read labels to avoid taking overlapping ingredients. NSAIDs such as ibuprofen or naproxen are not suitable for everyone, particularly those with kidney disease, stomach bleeding or ulcers, certain blood thinners, or pregnancy-related restrictions. Caffeine-containing products can trigger symptoms in some people.
- **Triptans** are prescription migraine-specific rescue medicines. One option we frequently prescribe is **rizatriptan (Maxalt)**, taken as needed according to the prescription. Triptans are not appropriate for some patients with cardiovascular disease, prior stroke, or uncontrolled high blood pressure.
- **Gepants** are another prescription option for acute attacks, including **rimegepant (Nurtec ODT)** and **ubrogepant (Ubrelvy)**. They may be alternatives when triptans do not work or are not appropriate. Nurtec may also be prescribed on a separate preventive schedule; follow your specific instructions.

These medicines are most established for **migraine headaches**. Their effectiveness for isolated ear fullness, tinnitus, or vertigo without headache is less certain. Keep track of how often you use rescue medication and let us know if attacks are frequent; excessive use of some acute medicines can worsen headache frequency.

Avoid "rebound" from pain relievers

Using over-the-counter or prescription pain relievers (ibuprofen, naproxen, acetaminophen, combination headache pills) or triptans on more than about 10 to 15 days per month can make migraine **more** frequent. Let us know if you are using these often.

Dizziness medicines: short-term only

Medicines such as meclizine or diazepam can help during a severe vertigo attack, but using them daily can slow your brain's natural ability to adapt and recover balance. Use them only for bad attacks unless we tell you otherwise.

Vestibular (balance) therapy

A physical therapist trained in balance problems can help your brain re-calibrate, especially if you have constant unsteadiness or motion sensitivity. Ask us if this is right for you.

Part 5: Step 2: Preventive Medicines

Key Points

> - Preventive medicines are taken **every day** to raise your threshold. They are not taken only during an attack.
> - They give you more "room" in your life while you work on triggers.
> - Most take **6 to 8 weeks at the target dose** to show full benefit. Do not judge a medicine after a few days.
> - Most of these medicines are used **"off-label"** for vestibular migraine, meaning they are FDA-approved for other conditions. This is common and accepted practice.
> - **Do not stop a preventive medicine suddenly** without talking to us (especially propranolol and topiramate).
> - **Tell us if you are pregnant, planning pregnancy, or breastfeeding** before starting any of these.

Once symptoms have been well controlled for several months, we often discuss slowly tapering the medicine.

Nortriptyline

What it is: An older medicine first used for depression and anxiety. For migraine we use a much lower dose (usually 5 to 10 times lower than depression doses).

How to take it: 10 mg at bedtime for 1 week, then 20 mg at bedtime. We may adjust from there.

Why the side-effect list is so long:

1. It is an old medicine, and the list includes everything patients have reported over many decades. A side effect on the list does not mean you will get it.
2. Many reports came from the much higher depression doses.

Most common at low doses:

- **Tiredness**, which is why we have you take it at night. Many patients find it helps their sleep.
- **Dryness:** dry mouth, constipation, and occasionally mild difficulty urinating.

Use caution and tell us if you:

- Have a history of heart rhythm problems or are seeing a cardiologist. Please discuss with your cardiologist before starting, especially if your heart condition is being actively treated or is not stable. We may check an ECG (heart tracing).
- Have glaucoma (narrow-angle type), an enlarged prostate, or trouble emptying your bladder.
- Take other antidepressants, tramadol, triptans, or other medicines that affect serotonin.
- Have bipolar disorder, depression, or any thoughts of self-harm. Antidepressants carry an FDA warning about mood changes and suicidal thoughts, mainly in people under 25. **Call us right away if you notice worsening mood or thoughts of self-harm.**
- Are older or at risk of falls (it can cause drowsiness or lightheadedness when standing).

Keep this medicine out of reach of children; it is dangerous in overdose.

Topiramate

What it is: A medicine originally developed for seizures, also FDA-approved for migraine prevention.

How to take it: Start 25 mg at bedtime. Increase by 25 mg each week until you reach 50 mg in the morning and 50 mg at bedtime.

Week	Morning	Bedtime
1	—	25 mg
2	25 mg	25 mg
3	25 mg	50 mg
4 and after	50 mg	50 mg

Common side effects:

- Numbness or tingling in the fingers, toes, or around the mouth (often improves with time)
- Taste changes (especially carbonated drinks tasting flat)
- Decreased appetite and weight loss
- Brain fog, word-finding difficulty, or slowed thinking (about 1 in 5 patients)

Important safety information:

- **Pregnancy:** Topiramate increases the risk of birth defects (such as cleft lip/palate). If you could become pregnant, use reliable birth control and tell us immediately if you become pregnant or plan to.
- **Birth control:** Topiramate can make estrogen-containing birth control pills less effective, especially at higher doses. Discuss your birth control method with us.
- **Eye emergency:** Rarely, topiramate causes a sudden rise in eye pressure, usually in the first month. **Stop and seek emergency care for sudden blurred vision, eye pain, or eye redness.**
- **Kidney stones:** Drink plenty of water. Tell us if you have a history of kidney stones.
- **Mood:** Tell us about any depression or mood changes.
- Reduced sweating can occur; take care in hot weather and during exercise.

Stopping: Do not stop suddenly. Reduce by 25 mg per week, or call the office with any serious concerns.

Propranolol

What it is: A blood pressure and heart rate medicine (beta-blocker), FDA-approved for migraine prevention.

How to take it: Usually an extended-release capsule once daily (commonly 60 to 120 mg; we may increase if tolerated).

Side effects: tiredness, cold hands and feet, lower exercise tolerance, vivid dreams, lightheadedness from lower blood pressure or slow pulse, and occasionally low mood.

Do not use or tell us first if you have: asthma or COPD, a very slow heart rate or heart block, low blood pressure, or diabetes treated with insulin or sulfonylureas (propranolol can hide warning signs of low blood sugar).

Stopping propranolol: Some patients taking it only for migraine may tolerate discontinuation without symptoms, but stopping abruptly can cause a rebound fast heart rate and, in some people, chest pain or other serious heart problems. **Contact our office before stopping so we can advise whether a taper**

is needed. If you have already stopped and notice a racing heart, call us to discuss a short taper or other next steps; do not restart or change the dose on your own. Seek emergency care for chest pain, fainting, or severe symptoms.

Diltiazem

What it is: A blood pressure medicine (calcium channel blocker), used off-label for migraine prevention.

How to take it: Usually 120 mg extended-release once daily; may be increased if tolerated.

Side effects: constipation, ankle swelling, headache or flushing, lightheadedness, slow pulse.

Tell us first if you have: heart failure, a slow heart rate or heart rhythm problems, low blood pressure, or if you take other heart or blood pressure medicines (especially beta-blockers such as propranolol). Diltiazem interacts with many medicines, including some cholesterol medicines (simvastatin, lovastatin), so please make sure every provider and your pharmacist know you take it. Avoid large amounts of grapefruit juice.

CGRP medicines

What they are: Newer medicines designed specifically for migraine. CGRP is a chemical messenger involved in migraine.

- **Injections** (once monthly or every 3 months), such as erenumab (Aimovig), fremanezumab (Ajovy), galcanezumab (Emgality); eptinezumab (Vyepti) is given by IV.
- **Pills** (gepants), such as atogepant (Qulipta) and rimegepant (Nurtec).

When we use them: Usually after the traditional medicines have not worked or were not tolerated (insurance usually requires this too). In our experience they work best for pressure and pain symptoms and are often less effective for purely balance or dizziness symptoms.

Side effects are usually mild: injection-site reactions and constipation are most common. Some can raise blood pressure. Not recommended during pregnancy.

Part 6: Ménière's Flares and Sudden Hearing Changes

Key Points

> - **A sudden change in hearing, or a new severe vertigo attack, needs a prompt visit with a hearing test.** Call the office the same day.
> - Untreated inner ear flares can lead to **permanent hearing loss.**
> - Treatment is usually **steroids**, by mouth or by injection through the eardrum.

More detail: What happens at a flare visit

1. **Hearing test (audiogram)** to measure how much the inner ear is involved.
2. **Treatment decision** based on the results:
    - **Oral steroids** (such as prednisone) for a short course, or
    - **Intratympanic steroid injections:** after numbing the eardrum, steroid medicine is placed through the eardrum into the middle ear so it can reach the inner ear. This can be a single injection or a series of 3 injections over 3 weeks. Injections may be used first or if oral steroids do not work.
3. **Repeat hearing test** after treatment to check the response.

Oral steroid side effects (short courses): trouble sleeping, increased appetite, mood changes or irritability, stomach upset, and raised blood sugar. **If you have diabetes, check your blood sugar more often and let your diabetes provider know.** Tell us if you have diabetes, glaucoma, stomach ulcers, or a history of mood disorders. Take steroids in the morning with food.

Intratympanic injection side effects: brief dizziness or burning, a small risk of a persistent hole in the eardrum, and rarely ear infection.

Ménière's-specific medicines

Some medicines act only on the inner ear and are used only for Ménière's (not for ear migraine):

- **Hydrochlorothiazide** (a "water pill"): may reduce inner ear fluid pressure. Side effects include frequent urination, low potassium or sodium, dizziness on standing, sun sensitivity, and gout flares. Tell us if you have a sulfa allergy, kidney disease, gout, diabetes, or take lithium. Discuss any need for laboratory monitoring with the clinician who manages your other medications.
- **Fludrocortisone:** used less often, off-label, as an inner ear stabilizer. Can raise blood pressure and lower potassium, and can cause swelling. Blood pressure and electrolyte changes may require follow-up with your primary care clinician or prescribing physician.

We use these less often because managing triggers and migraine usually reduces Ménière's flares significantly.

Part 7: When to Call or Seek Emergency Care

Call the office the same day if:

- You notice a sudden drop in hearing in one or both ears
- You have a new or severe vertigo attack, or your usual attack pattern clearly changes
- You have side effects from a new medicine that concern you

Go to the emergency room or call 911 if dizziness comes with any of these (these can be signs of a stroke or other serious problem, not migraine):

- Weakness, numbness, or drooping of the face, arm, or leg
- Slurred speech, trouble understanding speech, or confusion
- Double vision or loss of vision
- Inability to walk or stand, or severe clumsiness
- The worst or most sudden headache of your life
- Fainting, chest pain, or a racing or irregular heartbeat
- Sudden blurred vision with eye pain while on topiramate
- Thoughts of harming yourself

Part 8: Symptom Diary (copy as needed)

Date/time	Symptoms (dizziness, fullness, ringing, hearing, headache, sensitivity)	Severity (0–10)	How long	Sleep last night (hrs/quality)	Stress	Meals/foods/ alcohol/caffeine	Menstrual cycle day	Weather/ environment	Medicines taken

Questions for my next visit:

Office phone: [ ] **After-hours line:** [ ]