

Dizziness

Epidemiology: 5% of primary care clinic visits. Final diagnosis only found in 20% of cases

History: *Most important.* Ask about: symptoms / severity, timing, onset, alleviating / aggravating factors, medications, drugs / EtOH / tobacco, trauma.

Main Categories of Dizziness

CATEGORY	DESCRIPTION	PERCENTAGE OF PATIENTS WITH DIZZINESS
Vertigo	False sense of motion, possibly spinning sensation	45 to 54
Disequilibrium	Off-balance or wobbly	Up to 16
Presyncope	Feeling of losing consciousness or blacking out	Up to 14
Lightheadedness	Vague symptoms, possibly feeling disconnected with the environment	Approximately 10

I) Vertigo: BPPV, Meniere's, vestibular neuritis, labyrinthitis, vestibular migraines, toxins

BPPV: Episodic positional vertigo w/o hearing loss 2/2 otolith in semicircular canal, (+) Dix-Hallpike

Meniere's: Episodic vertigo with hearing loss 2/2 increased endolymphatic fluid.

Vestibular neuritis: persistent vertigo without hearing loss 2/2 viral infection of vestibular nerve

Labyrinthitis: persistent vertigo with hearing loss

Vestibular migraine: Dx of exclusion in periodic vertigo with h/o migraine Has, photophobia, phonophobia, aura.

Toxins: EtOH, heavy metals (Cu, Me, Fe), carbon monoxide, anticonvulsant medications (phenytoin, carbamazepine, barbiturates), NSAIDs, aminoglycosides

(vestibulopathy)

II) Disequilibrium: PD, diabetic neuropathy, TIA/CVA, musculoskeletal disorders, medications (narcotics, TCAs, benzos)

III) presyncope: medication effects, orthostasis

orthostatic hypotension: SBP decrease 20 mmHg or DBP decrease 10 mmHg or HR increase of 30 bpm 2/2 CV disease (esp. SVT), medications, dehydration, electrolyte imbalance

medications causing orthostatic hypotension: α -blockers, B-blockers, diuretics, nitrates, antipsychotics, TCAs, narcotics, muscle relaxants, PGE-5 inhibitors

IV) lightheadedness / vague symptoms: psychogenic, depression, anxiety, somatization, conversion, hyperventilation.

Psychogenic dizziness: Sx worsen with stress / fatigue.

Phobic postural vertigo: Sx worsen when looking at moving objects

Physical Exam:

1. Blood pressure; check orthostasis
2. Dix-Hallpike maneuver: 50-90% sensitive for BPPV

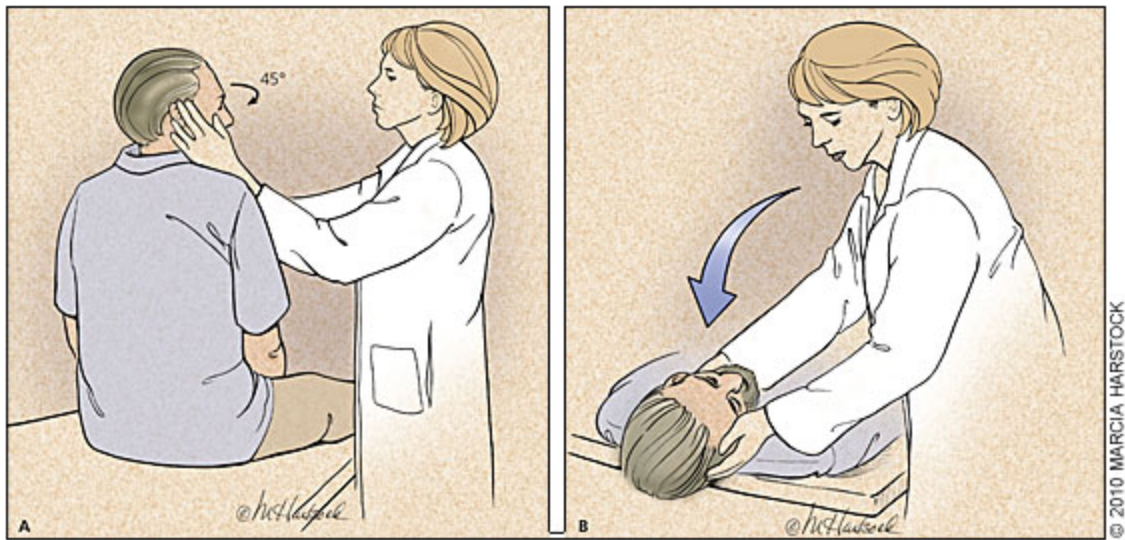


Figure 1.

Dix-Hallpike maneuver. While the patient is in a seated position, the physician (A) turns the patient's head 45 degrees to one side, then (B) rapidly lays the patient into a supine position with the head hanging about 20 degrees over the end of the table, observing the patient's eyes for approximately 30 seconds. The maneuver is repeated for the opposite side. Nystagmus is diagnostic of vestibular debris in the ear that is facing down, closest to the examination table. A video demonstration of this maneuver is available at <http://www.youtube.com/watch?v=vRpwf2ml3SU>.

3. Neuro testing: : concern for tumor (vestibulocochlear or labyrinthine lesions), PD, peripheral neuropathy, CVA
 - a. Cranial nerves
 - b. spontaneous nystagmus
 - c. Romberg / gait testing
4. Hyperventilation to induce Sx

Labs/imaging: Labs / imaging not very important; may consider CBC, BMP, TSH though all very low yield. Labs not indicated if no neuro deficits (C evidence). May consider electronystagmography though rarely changes management.

Tx:

BPPV: Epley maneuver, vestibular rehabilitation

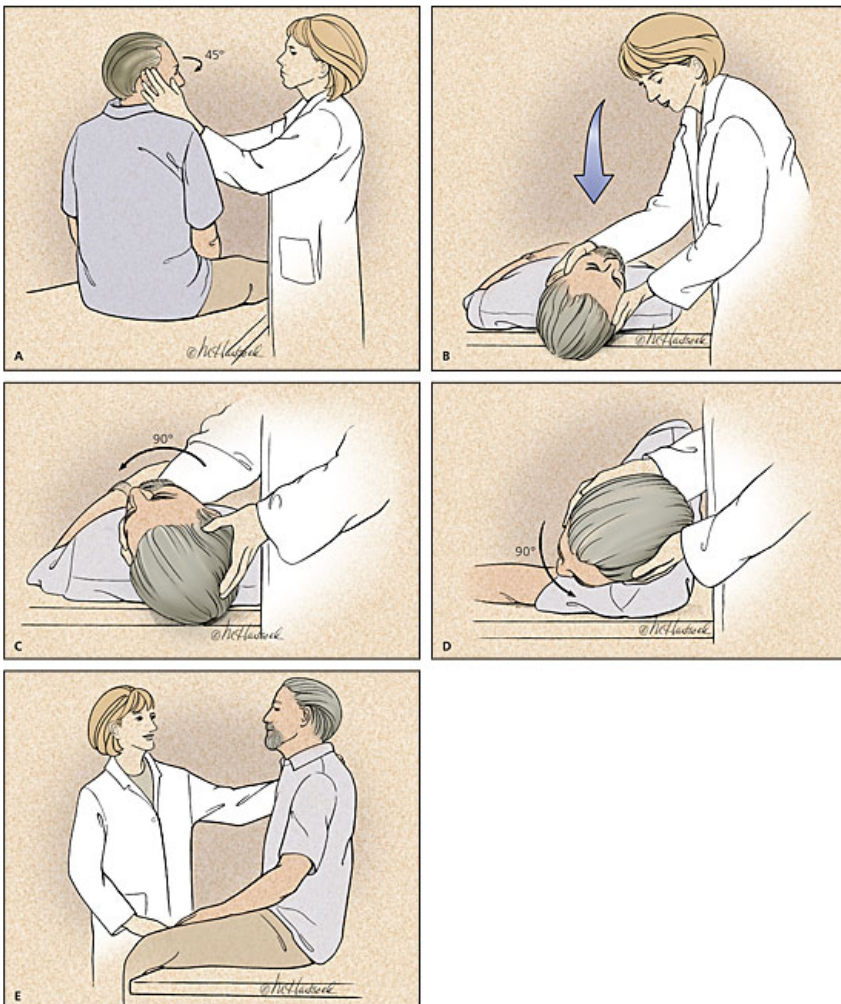


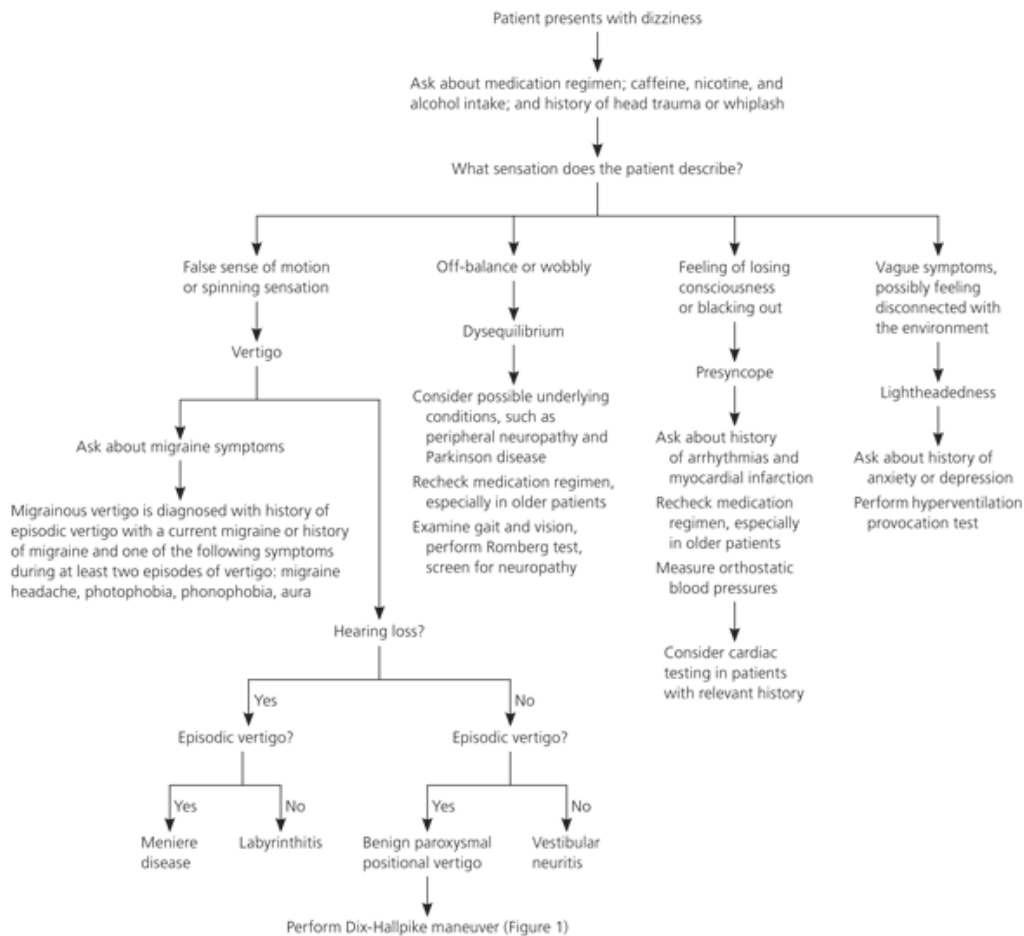
Figure 3.

Epley maneuver (canalith repositioning). The technique involves a series of movements. (A) The maneuver begins with the patient sitting with the head rotated 45 degrees to the right. (B) The physician lays the patient into a supine position with the head hanging over the end of the table. (C) The head is then rotated 90 degrees to the left, (D) and the head and body are rotated together an additional 90 degrees until the patient is 135 degrees from the initial supine position. (E) The patient is brought to a sitting position while the head remains tilted. Finally, the head is brought forward and downward to an angle of 20 degrees. The physician should pause at each position until nystagmus resolves, and the whole series should be repeated until no nystagmus is present at any position. The maneuver can also begin with the patient in the supine position. A video demonstration of this maneuver is available at <http://www.youtube.com/watch?v=ZqokxZRbJfw&NR=1>.

Meniere's: intratympanic dexamethasone / gentamycin

Vestibular neuritis: steroids

Orthostatic hypotension: α -agonists, mineralocorticoids, discontinuation of



Med Clin North Am. 2010 Sep;94(5):989-1002. doi: 10.1016/j.mcna.2010.05.011.

Mukherjee A, Chatterjee SK, Chakravarty A. Vertigo and dizziness--a clinical approach. J Assoc Physicians India. 2003 Nov;51:1095-101.

Karatas M. Central vertigo and dizziness: epidemiology, differential diagnosis, and common causes. Neurologist. 2008 Nov;14(6):355-64.