

BPPV (Benign Paroxysmal Positional Vertigo)

A plain-English guide for you and your family

WHAT IS HAPPENING

Inside each inner ear sit three tiny loops filled with fluid, standing in different directions like miniature hula hoops. At the base of these loops is a small pouch lined with gel that holds thousands of microscopic crystals made of calcium carbonate—think of them as grains of sand glued onto a sticky pad. These crystals normally stay put and help you sense which way is up and whether you're tilting. In BPPV, a few crystals break loose—often because of a bump to the head, an ear infection, long bed rest, or simply getting older and the glue weakening—and tumble into one of the three loops (usually the back one, because it hangs lowest when you lie down). Now, every time you move your head in a certain way—rolling over in bed, lying flat, bending forward, or looking up at a high shelf—the loose crystals roll through the fluid like pebbles sliding down a tube of water. That rolling makes the fluid swirl when it should be still, and the swirl bends a tiny motion sensor inside the loop, which sends a false alarm to your brain: 'We're spinning fast!' Your brain believes the message and jerks your eyes back and forth automatically to try to steady your vision during the 'spin,' which is why you suddenly feel like the room is whirling around you. The spinning lasts only ten to sixty seconds—just long enough for the crystals to settle at the bottom—but it can be intense and often makes you feel sick to your stomach. The good news is BPPV does not damage your hearing, your brain, or your balance nerves; it is simply crystals sitting in the wrong spot. A doctor, physical therapist, or audiologist can guide your head through a careful sequence of positions (the Epley maneuver is the most common) to roll the crystals back into the pouch where they belong, and once they're out of the loop, the dizziness stops.

What you might feel

- Sudden spinning feeling when you move your head
- Dizziness triggered by rolling over in bed
- A spinning sensation (Vertigo) when looking up or bending down
- Nausea or vomiting during a spinning episode

- Brief episodes that last less than one minute
- Unsteadiness or feeling off-balance between spinning episodes
- Rapid, jerking eye movements during the spinning (nystagmus)
- Sudden hearing loss or ringing in one ear during the a spinning sensation (vertigo)

Call the doctor right away if...

- New severe headache or the worst headache of your life with the a spinning sensation (vertigo)
- Weakness, numbness, or trouble moving one side of your face, arm, or leg
- Double vision, slurred speech, or difficulty swallowing
- A spinning sensation (Vertigo) that lasts hours without stopping or keeps getting worse
- Loss of consciousness, confusion, or trouble staying awake during the spinning episode

What the care team will do

- Keep the patient safe from falls by staying close, using the call bell, and helping with all movement.
- Help position the patient comfortably and teach them to move slowly, pausing between position changes.
- Give anti-nausea medicine as ordered and offer small sips of clear fluids or bland crackers.
- Prepare for and assist with the Dix-Hallpike test and repositioning maneuvers like the Epley maneuver.
- Teach the patient what BPPV is, why it happens, and that it is not dangerous or a sign of stroke.

Medicines you may be given — and why

Meclizine

Meclizine blocks histamine signals in the balance centers of your inner ear and in the part of your brainstem that triggers throwing up. When those histamine messages are turned down, your brain gets fewer spinning signals, which calms the dizzy feeling and stops the sick-to-your-stomach urge.

Dimenhydrinate (Dramamine)

Dimenhydrinate works almost the same as meclizine: it blocks histamine signals in your inner-ear balance system and brainstem to quiet the spinning sensation and calm nausea. The drug

is actually a combination of diphenhydramine (an antihistamine) and a caffeine-like molecule, but the antihistamine part does the real work for dizziness.

Promethazine (Phenergan)

Promethazine blocks histamine receptors in the balance centers and also blocks dopamine receptors in the vomiting center of your brainstem. This double block makes it especially strong at stopping severe nausea and vomiting that can come with intense a spinning sensation (vertigo). It calms the spinning feeling and settles your stomach.

Where this information comes from

- American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS) Clinical Practice Guideline: Benign Paroxysmal Positional Vertigo (2017)
- American Academy of Neurology
- Cochrane Database of Systematic Reviews
- UpToDate

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