ENThealth℠
POWERED BY AMERICAN ACADEMY OF OTOLARYNGOLOGY–HEAD AND NECK SURGERY

BENIGN PAROXYSMAL POSITIONAL VERTIGO (BPPV)

Do you get a spinning vertigo or dizziness sensation in certain head positions? For example, turning to a particular side when you're lying in bed, or lying flat on your back without any pillows to support you, or tilting your head back to look up, or tilting your head down as if to tie your shoes? Is it severe, feeling like it lasts several minutes when it probably only lasts a few seconds?

If so, there's a good chance you have benign paroxysmal positional vertigo, or BPPV (commonly known as "having rocks in the head"). BPPV is the most common inner ear problem and cause of vertigo, or false sense of spinning. It can occur just once or twice, or it can last days or weeks, or, rarely, for months. BPPV is a specific diagnosis and each word describes the condition:

Benign—It is not life-threatening, even though the symptoms can be very intense and upsetting.

Paroxysmal (par-ek-siz-muhl)—It comes in sudden, short spells.

Positional—Certain head positions or movements can trigger a spell.

Vertigo—You feel like you are spinning, or the world around you is spinning.

What Happens in the Inner Ear with BPPV?

The way we maintain balance when we move about is by the complex interactions of both inner ears, the eyes, the muscles down your back, and soles of the feet, and how all of these get processed in the brain. In the inner ear, we have balance canals that detect movement, and balance organs that detect gravity. The gravity organs have tiny calcium carbonate crystals in them, which are often referred to as "rocks."

In BPPV, a rock or two gets dislodged from the organ and falls towards the balance canals. This usually affects the posterior of the three balance canals on that side, because that's the lowest one and the rock follows the rules of gravity. So, when you turn your head into those certain positions, the rock pushes on the canal, and the brain thinks you are whirling around. If you stay in that position and open your eyes, within a few seconds the brain figures it out and you stop "whirling." But this is a scary feeling, so most people with BPPV don't stay in that position or open their eyes.

WHAT ARE THE SYMPTOMS OF BPPV?

BPPV is the most common cause of vertigo. Vertigo is the unpleasant (often, very frightening) sensation of the world rotating, often associated with nausea and sometimes even with vomiting. What distinguishes BPPV from other causes of vertigo include:

- Vertigo that is experienced after a change in head position such as lying down flat, turning over in bed, tilting back to look up, or tilting down to stoop
- No associated hearing loss or fullness feeling in the ear
- Some nausea, but usually not severe and usually not associated with vomiting
- Vertigo stops as soon as you turn your head away from the provoking position and back to where it was

WHAT CAUSES BPPV?

BPPV can occur spontaneously, that is, without a real cause. It is commonly seen in the elderly without an underlying cause identified. It can also occur after any type of even minor head trauma, even as small as a violent sneeze or hitting your head on a cabinet, and with major head trauma or after a concussion. It can also occur a long time after another inner ear problem such as labyrinthitis or Ménière's disease.

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How Will My Doctor Know If I Have BPPV?

Your doctor or other healthcare professional will ask you questions about your dizziness and vertigo, and, with careful listening, can often distinguish between BPPV and other types of dizziness. After a thorough examination of your ears, nose, throat, and neck, the doctor will perform a test on you that is called a Dix-Hallpike Maneuver.

You will be seated on a flat surface and then brought down into positions that can provoke the vertigo experienced in BPPV. Another test that looks for BPPV of the horizontal (and not posterior) balance canal is the supine roll test, where you are already lying on your back and your head is moved from side to side. Once the side of the vertigo is identified, the doctor may either immediately offer you a treatment, or may refer you to a specialist (otolaryngologist or vestibular physical therapist) who can offer you that treatment.

WHAT ARE THE TREATMENT OPTIONS?

The treatment for BPPV involves moving those misplaced rocks or crystals from the active portion of the inner ear to the inactive portion of the inner ear, where they won't cause dizziness. These treatments are office procedures called Canalith Repositioning Procedures, or CRP. They may be called Epley or Semont maneuvers as well. These are done either in your doctor's office or by the physical therapist, and involve putting you into a position that causes vertigo, allowing it to pass, and then turning your head carefully to move those tiny crystals in your inner ear to a portion of the inner ear where they won't do any harm.

The success rates for these office treatments, which take only several minutes, are very high. Most people are "cured" after one or two treatments, but some may need additional "repositioning" treatments. Rarely, people need surgery to close off the posterior canal because there are so many rocks or so much "sludge" that the CRP treatments do not work. The surgery is very effective with minimal risks.

What Is the Wrong Treatment for BPPV?

Many times, patients go to the emergency room or urgent care setting with vertigo that is BPPV, but they are given a vestibular suppressant like meclizine or benzodiazepene instead of being offered CRP. The problem with taking the medication is that it does not address the cause of the problem, and it delays your brain's ability to compensate and recover.

WHAT QUESTIONS SHOULD I ASK MY DOCTOR?

1. Do I need a CT scan or an MRI scan?
2. Do I need to keep my head in a certain position after CRP?
3. Do I need any other testing of my balance system?
4. Is it possible that my BPPV will go away by itself?
5. What about these self-remedies I see on the internet such as the "half somersault," etc.?
6. Is there anything about my medical condition in particular that would warrant more aggressive treatment?

References:

Bhattacharyya N, Gubbels SP, Schwartz SR et al. *Clinical Practice Guideline: Benign Paroxysmal Positional Vertigo (Update). Otolaryngol Head Neck Surg 156 (3) suppl, S1-S47.*

https://www.entnet.org//content/clinical-practice-guideline-benign-paroxysmal-positional-vertigo-bppv

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