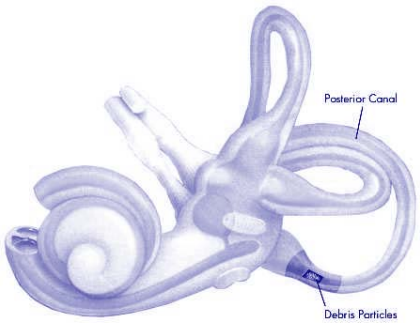
Benign Paroxysmal Positional Vertigo (BPPV)

First described by R. Barany in 1921, and further defined by R. Dix and C. S. Hallpike in 1952, BPPV is characterized by brief attacks of vertigo and concomitant positioning rotary nystagmus that are precipitated by rapid head extension and lateral head tilt toward the effected ear.[1]

- **Benign** - Not malignant or life threatening
- **Paroxysmal** - Response gradually builds and then fades
- **Positional** - Response provoked by change in head or body position
- **Vertigo** - Sensation of movement such as spinning or turning.

The presumd etiology is canalithiasis (free floating otoliths/debris within the endolymphatic space) or cupulolithiasis (otoliths/debris attached to the cupula of the semicircular canal)[2]. BPPV is thought to be the most common cause of dizziness in patients over the age of 40 - representing 20% of vertigo cases presenting at ENT offices, with a female to male ratio of 1:1. Often this form of dizziness occurs following a minor blow to the head (e.g. traffic accident), or in patients with micro-vascular issues (e.g. diabetic patients).



CANALITHIASIS

A diagnosis of BPPV can be made utilizing the Hallpike Maneuver, whereby a patient is moved from sitting to supine with the head at 45^{o} to one side or the other. Recordings are made using the infrared camera on a Videonystagmography (VNG) vestibular diagnostic system.
The Classic BPPV response requires the following characteristics:

- A latency of 10-30 seconds
- Is paroxysmal in nature
- Rotary/torsional nystagmus is observed
- Nystagmus has a duration of less than 1 minute
- Response fatigues with repetition.
- Response may reverse when returned to the upright position.

Differential diagnosis includes cervical vertigo resulting from vascular insufficiency with head movements, central positional vertigo, perilymphatic fistulas, drug or alcohol intoxication, Meniere's disease, neurovascular cross-compression, Waldenstrom's disease, and psychogenic vertigo.[1]

Once identified, BPPV management options include: **Canalith Repositioning Maneuver** (Epley or Semont) - A quick and simple postural treatment with successful outcomes reported at near 90%.
Nothing - Symptoms are not life threatening, 90% experience spontaneous resolution in weeks to months.
Surgery - canal occlusion or singular neurectomy, used only in severe cases that are not responsive to physial therapy.

[1] JACOBSON, G., NEWMAN, C, and KARTUSH, J. Handbook of Balance Function Testing, Singular Publishing Group, San Diego, 1997.

[2] GOEBEL, J.A. Practical Management of the Dizzy Patient, Lippincott, Williams, and Wilkins, Philadelphia, PA 2001

PHYSICIANS HEARING SERVICES
Caring, Competence, and Credentials ™

1351 E Spruce, Fresno, CA 93720
559-432-5973