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## The Bell Method™ *A Fresh Perspective*



### **Dizziness and Vertigo: From Irrelevant to Emergency in an Instant!**

#### **Objectives: Participants will be able to...**

- 1) Identify circumstances that require emergency intervention or urgent care.
- 2) Implement three coaching tips for clients who get dizzy when standing up.
- 3) Instruct strategies to reduce vertigo symptoms with lying down or rolling in bed.
- 4) Make appropriate referrals for differential diagnosis and treatment of dizziness and vertigo.
- 5) Utilize professional medical terminology for vestibular versus non-vestibular causes of dizziness and vertigo.

#### **Short Definitions of Medical Terminology:**

**Dizziness** - lightheadedness, about to pass out

**Vertigo** - false perception of movement, usually spinning, tilting or swaying

**Dysequilibrium** - "off balance"

#### **Fill in the blank:**

1. Most people use the general term \_\_\_\_\_ for all three feelings listed above, unless they have deeper knowledge of this subject.
2. This general term is very similar to the complaint of \_\_\_\_\_, in that the term is non-specific about its origin and indicates that further evaluation is needed.

#### **Overview:**

- The **multi-factorial nature** of these complaints is the reason patients lack a proper, comprehensive root cause evaluation and targeted treatment plan.
- All dizziness, vertigo and dysequilibrium should be reported to the Primary Physician.
- Specify **Onset, Duration and Trigger** when reporting symptoms to a provider.
- Medications may help with symptoms, but often do not resolve root cause and have side effects, including dizziness and blurry vision. Long term use of medications is only recommended for people with a poor prognosis for recovery.
- Consultation with a Vestibular Specialist is highly recommended for differential diagnosis and treatment of the vestibular system (Physical Therapist for Vestibular Rehab). Direct Access to PT or Physician Referral are both options in California.
- Other Specialists may be needed for non-vestibular causes, such as a Cardiologist or Ophthalmologist.

#### **SEEK EMERGENCY CARE IF:**

- Suddenly cannot sit unsupported (with or without dizziness)
- Suddenly cannot stand or walk without assistance (with or without dizziness)

- Sudden hearing loss (with or without dizziness)
- Severe vomiting (with or without dizziness)
- New neurological signs are present **with dizziness** such as:
  - double vision,
  - numbness in arms or legs,
  - difficulty moving one or more limbs,
  - slurred speech, etc.

### **How can I coach my clients if they get dizzy when they stand up?**

- Dizziness with standing is often caused by a drop in blood pressure due to the force of gravity with standing and a lack of sufficient cardiovascular response, causing “Orthostatic hypotension.” This symptom can also have other causes.
- You can say something like, “This dizziness may go away quickly or it may last the whole time you are up. Use these strategies to prevent falling if you feel dizzy after standing up.”
- **Pump your ankles** and **clench your fists** ten times before you stand to get your blood pressure up before you stand up.
- Once you stand up, **stay in front of the chair** or bed while you **march in place** or **raise your heels** for a few minutes.
- **Spread your feet wide** for better balance with standing and walking.
- **Use a walker or cane** for safety when you feel dizzy with standing or walking.

### **What should someone do if they get vertigo while lying down or rolling over in bed?**

- Sit on a chair or lie down propped up on at least two pillows, if possible.
- Keep their head still.
- Concentrate on points of contact between their skin and the supportive surface.
- Either stare at a vertical line, or close their eyes if the eyes are bouncing around, whichever feels better.
- Take slow deep breaths to try to remain calm.
- Avoid any “provoking positions” or triggering motions until evaluated and instructed by a Vestibular Specialist (BPPV expert).
- Note: This is most commonly caused by BPPV, but it can also have other causes.
- For more information and a video link, check out this author’s blog post at [BetterBalanceInLife.com](http://BetterBalanceInLife.com) called “FAQ: How Can I Manage an Episode of Vertigo?”

## Dizziness

Dizziness: a vague lay-term commonly used by patients as a description of symptoms. This complaint does not indicate anything clinically specific but warrants a detailed history and a thorough examination by a medical professional.

According to the Barany Society (a Sweden-based International society of vestibular experts), “dizziness” is defined as the “sensation of disturbed or impaired spatial orientation WITHOUT a false or distorted sense of motion.”

Patients often complain of lightheadedness, floaty feeling or general fogginess in the brain.

Dizziness can be caused by many different problems – e.g., medication side effects, drug interactions especially with alcohol, medication errors, diabetes, blood pressure issues, dehydration, anxiety, panic attacks, irregular heart rate, etc.

Dizziness is the #1 complaint to physicians from patients over 75 and is usually multi-factorial.

45 – 50% of cases of dizziness in older patients have a vestibular component.

Vestibular problems are often unrecognized, especially in elderly and can lead to devastating falls, fear of falling and ultimately deterioration of quality of life.

Therefore, ALL OLDER ADULTS who are complaining of dizziness, vertigo or having unexplained repeated falls should be evaluated by a Vestibular Specialist to discover the ROOT CAUSE of their complaints.

## Dysequilibrium

Dysequilibrium: a general feeling of being “off balance” or unable to right oneself and move through space with confidence.

May also be described by patients as “weak in the knees” or “knees feel like they will buckle,” in the absence of quadricep muscle weakness.

People commonly interchange “imbalance,” “disequilibrium,” and “dysequilibrium.” They are synonymous terms.

## Vertigo

Vertigo: a false perception of motion (spinning, tilting or translating) while at rest OR a distorted perception of otherwise normal motion

### Who gets vertigo? What phase of life does it commonly present?

- Most commonly, vertigo presents in the 6th and 7th decade of life (50's and 60's)
- Women in this age group experience vertigo seven times more often than men.
- Ratio of Women: Men who get vertigo = 7:1 in middle age and 3:1 at puberty

### What causes Vertigo?

There are many causes of vertigo and anyone can get it at anytime, but the most common Inner Ear or Vestibular cause of Vertigo is BPPV, Benign Paroxysmal Positional Vertigo.

# BPPV

BPPV (Benign Paroxysmal Positional Vertigo): Most common vestibular disorder, or inner ear condition.

- “Benign” means it is not related to any disease process or pathology. This can be misleading because the effects of injuries caused by unresolved BPPV can be severe.
- “Paroxysmal” means it comes and goes, not constant.
- “Positional” means it is related to certain positions.
- “Vertigo” means a false sense of spinning, translating or tilting movement while the person is at rest or during otherwise normal head motion.

This is a bio-mechanical problem in the inner ear that occurs when one or more otoconia dislodge from the utricle and travel via endolymphatic fluid into one of the semi-circular canals.

There are two types of BPPV and it can occur in any combination of six total semi-circular canals (SCCs) in the inner ears or vestibular system, so a skilled assessment is recommended.

There are three fluid-filled semi-circular canals in the inner ear on each side of the head.

In order to be certain that an older adult does not have BPPV, all six canals must be screened and cleared.

Good News: If properly assessed, simple BPPV in one canal can be successfully treated in 1-2 sessions 85-90% of the time.

So why are patients suffering with BPPV for months to years, or never being treated properly?

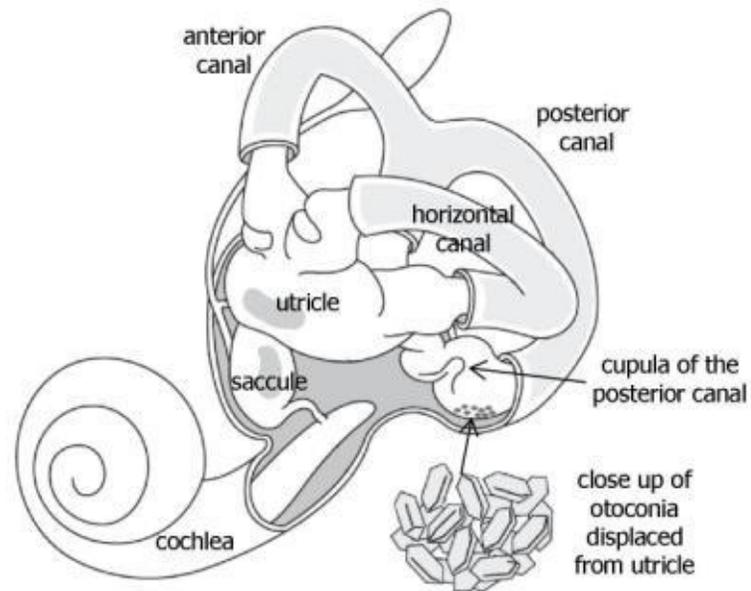
Because the most common treatment, the Epley maneuver was invented in 1992. Vestibular Rehabilitation is an emerging field and not widely known or practiced in modern medicine.

Author’s Goal: To empower ALL geriatric providers with the knowledge, skills and confidence to recognize BPPV and make appropriate referrals.

## **What common complaints are associated with BPPV?**

- Vertigo when lying down or rolling in bed, triggered by change in head position
- Symptoms worse in the morning
- Complaints of intermittent OR constant dizziness
- Loss of balance, blurry vision or falls with head turns
- Feelings of unsteadiness or imbalance
- Difficulty walking
- Foggy Brain
- Unexplained repeated falls without feelings of vertigo
- Difficulty with short term memory and concentration
- Difficulty reading
- Fear of falling
- Blurred vision, wavy patterns or illusion of movement of objects otherwise known to be stationary with high speed or unpredictable head motions (oscillopsia)

## What causes BPPV?



*Image provided courtesy of Vestibular Disorders Association (vestibular.org)*

## Common Positions that Trigger BPPV Symptoms

- Lying down flat on back
- Looking up (Ex. putting in eye drops)
- Looking down
- Rolling side to side
- Quick head turns

## What is BPPV Commonly Associated with?

- Normal Aging!
- Osteoporosis and osteopenia
- Vitamin D deficiency
- Head trauma (car accident, whiplash injury, sports concussion, falls with hitting head, blast injuries from road side bombs in war veterans, etc)
- Sinus infections
- Seasonal Allergies
- With hormonal changes (puberty, pregnancy and menopause)
- Diabetes (microvascular changes in small capillaries affect the inner ear too!)
- Cardiovascular risk factors (high cholesterol, high blood pressure, tobacco smoker due to poor circulation)

- Occupations that have a repeated vibration or impact with the head at an angle (jackhammering, plumber, construction worker, mechanic, bike repair, high impact athletes)
- Migraines
- Meniere's Disease
- Vestibular Hypofunction
- Neck pain / Clenching jaw
- Stress
- Dehydration
- Anxiety issues (due to holding the breath or hyperventilating with panic attack)
- Genetic Predisposition (runs in family)
- History of chronic ear infections in childhood

For more information about BPPV, watch FAQ video called "What is the most common vestibular disorder? BPPV" on YouTube channel, Kimberley Bell.

**BPPV Comprehension Check: Answer the following questions.**

How is BPPV like a hula-hoop?

How is BPPV like a sand bracelet?

How is BPPV like a snow globe?

How is BPPV treatment like a pinball game?

## What are the Key Points in the Literature?

### 1. Undiagnosed Vestibular Problems and Sub-Clinical Vestibular Problems cause Falls.

One epidemiological study found that:

- 1/3 US adults over 40 years old had a Vestibular Deficit upon clinical exam, with or without complaints of dizziness or vertigo.
- Dizziness in US adults over 40 had 12 x increased risk of falling within a year.
- Patients with sub-clinical vestibular dysfunction still had 6x increased risk of falling with NO complaints of dizziness.
- Sub-clinical means they are not actively complaining of dizziness or vertigo but show a vestibular deficit when examined.

### 2. All Older Adults should be Screened for BPPV during a Clinical Exam due to Normal Aging of Vestibular System.

“Even if the older adult physical therapy patient does not present with a vestibular diagnosis or complaints consistent with it, it is recommended that the older adult always be assessed for BPPV during the clinical examination because of its prevalence.” (Oghalai, 2000)

### 3. Specialized Physical Therapy is Recommended prior to Diagnostic Testing for people with dizziness and vertigo, due to the success of Vestibular Rehab.

Evidence-based BPPV Clinical Practice Guidelines published by the American Academy of Otolaryngology recommend a referral to a Vestibular Specialist for BPPV evaluation and treatment, prior to diagnostic testing for patients with vertigo and dizziness due to the prevalence of BPPV and the success rate of this conservative approach. (BPPV Guidelines, revised in 2017)

### 4. Vestibular Rehab improves balance even in people without Vestibular Deficits.

Researchers have shown that balance and fall risk will improve with exercises to strengthen the vestibular system EVEN IN THE ABSENCE of a specific vestibular dysfunction. (Research findings by Courtney Hall, et al.)

### 5. There is a strong body of evidence supporting vestibular rehab physical therapy.

*Therefore*, a consultation with a Vestibular Physical Therapist is HIGHLY recommended for older adults with dizziness, vertigo, imbalance or unexplained repeated falls.

**Find a Vestibular Specialist in your geographical area using the Provider Directory at the Vestibular Disorders Association website: [vestibular.org](http://vestibular.org).**

Be sure to find someone who claims they can perform “particle repositioning maneuvers” which are required to resolve the most common vestibular disorder, BPPV.

Sometimes, people need 6-8 weeks of Vestibular Rehab Exercises after BPPV is ruled out or resolved for a full recovery, depending on the root cause of symptoms.

**After consultations are completed with the Vestibular Specialist and other needed providers, how can I coach my client if he/ she still feels better or worse on different days?**

**Coaching On Good Days (create a challenge):**

- Walk as fast as you can safely and practice turning your head while you walk.
- Stand with your feet close together while you brush your teeth or wash dishes.
- Look around while riding in the car.

**Coaching On Bad Days (minimize discomfort and prevent falls):**

- Spread your feet wide apart as you walk for better balance.
- Keep your head still while you walk. If you have to turn, stop walking then turn slowly.
- For riding in the car, keep your eyes inside the vehicle, on the dashboard or your lap.

**For more information on dizziness, vertigo, imbalance or unexplained repeated falls, visit:**

[BetterBalanceInLife.com](http://BetterBalanceInLife.com)

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**Bell Method E-Courses:**

Foot Therapy Program for Fall Prevention  
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