

Figure 2 - Patient self-rating of lifestyle improvement for BPPV and central compensation issues.

Audiology Associates' Rehabilitation Protocol for Uncompensated Lesions

The ten-year retrospective study demonstrated that the following home-based program is effective in treating central compensation issues. This program is provided to patients that reveal caloric, positional or visual abnormalities at the time of the diagnostic ENG/VNG procedure. The protocol and exercises are as follows:

- Body swing
- Head shake (if found to be positive)
- Visual movement (for those patients with visual stimulation issues)

These exercises are to be performed twice a day for 6-8 weeks. Within two weeks, patients will begin to notice their dizziness is less intense and has a shorter duration. Following the 8-week program, patients will report their dizziness is resolved. The patient is then placed on a maintenance schedule.

For more information, schedule an appointment at the nearest office.
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Vestibular Rehabilitation

Treatment and Outcomes

Diagnosis and Treatment by a Doctor of Audiology

Balance disorders are uniquely evaluated by a Doctor of Audiology through an extensive case history and various test procedures which may include, electronystagmography (ENG) or videonystagmography (VNG), rotational chair testing, vestibular evoked myogenic potentials (VEMP), electrocochleography (ECoChG), posturography and head impulse testing (HIT). ENG/VNG procedures electronically measure the type of eye or body movement that provoke a patient's dizziness to help determine whether or not their symptoms are related to an inner ear dysfunction. VEMP is also an electronic recording of responses from other organs in the inner ear, in response to auditory stimuli. Posturography can help to determine particular weaknesses in imbalance when the visual, vestibular and proprioceptive senses in the body are isolated. All of these procedures help to develop a "road map" for the treatment and/or further recommendations to address abnormal findings.

Who does dizziness affect?

Dizziness affects nearly 1 in 10 individuals that visit a primary care physician. Dizziness can be secondary to many conditions and disorders making it difficult to diagnose. Continuing efforts to best manage the dizzy patient has led to many medical and non-medical treatments for balance disorders.

Vestibular Rehabilitation Treatment

Treatment for benign paroxysmal positional vertigo (BPPV), sometimes referred to as "loose crystals" has been standardized for a few decades. BPPV diagnosis accounts for 20% of dizziness treatment. Whereas treatment for central compensation issues for those exhibiting positional vertigo, unilateral weakness or visual stability issues account for 80% of vestibular cases.

Historically, central compensation cases have been treated by physical therapists whose treatment has been guided by the Cathway-Hawthorne exercises that were first reported in 1945. These exercises consist of 27 different therapeutic movements. The complexity of these exercises requires an office based treatment protocol. These exercises can require a significant number of visits that can last for several hours each day.

In addition to these issues, there has been a dearth of outcome data to document the ineffectiveness of the Cathway-Hawthorne approach. Therefore, there is a need for a widely accepted central compensation treatment protocol to provide unanimity among healthcare professionals in the treatment and followthrough for dizzy patients.

The Audiology Associates Treatment Outcomes for Central Compensation

Audiology Associates recognized these issues surrounding the treatment of patients with central compensation issues. In 1999, the group embarked on developing a treatment protocol that would resolve these issues. This effort led to a ten-year retrospective study analyzing results of 940 balance patients. Information regarding diagnosis and management recommendations was collected from six offices within the practice. The purpose of the study was to review the efficacy of well defined, home-based exercise regiment for the treatment of uncompensated lesions.

Figure 1 shows the mean improvement of patient's subjective rating of their dizziness following treatment. This figure compares the results with BPPV vs. central compensation treatment. The rating was based on a patient reporting very significant dizziness as a 5 versus a 1 as minimal. The data demonstrates that both BPPV and central compensation improvement was equivalent.

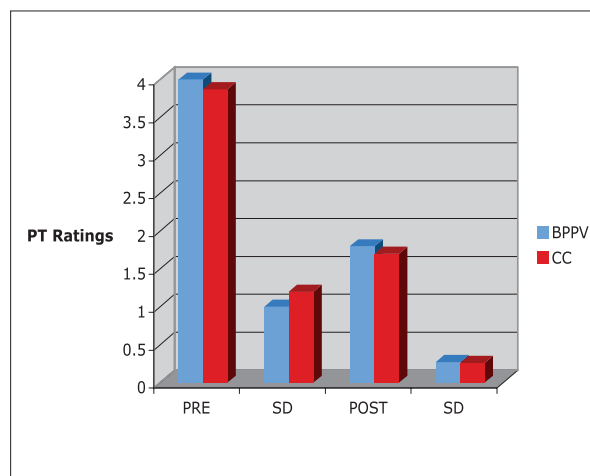


Figure 1 - Patient rating of dizziness showing the pretreatment along with its standard deviation (SD) in conjunction with the post-treatment data and its standard deviation (SD).

The study also took into account a patient's feelings of their lifestyle improvement. Patients were instructed to rate their subjective improvement from 1 to 3 with 1 representing no improvement, 2 indicating significant improvement and 3 indicating no impact in their lives from dizziness. Figure 2 reveals that over 80% reported a significant improvement in their lifestyle.