

EAR, NOSE AND THROAT ASSOCIATES OF CHESTER COUNTY

Alexander C. Keszeli, D.O. **Alfred J. Mauriello, II, M.D.**
Michael A. Picariello, M.D. **Joseph L. Smith, II, M.D.**
Daniella D. Benson, PA-C
Nicole A. Walstein, PA-C

FREQUENTLY ASKED QUESTIONS **Regarding Vestibular (Balance) and Auditory (Hearing)** **Tests of the Inner Ear**

The inner ear is a complex sense organ that is responsible for hearing and balance. Traditional hearing tests only look at a small portion of the hearing part of the ear. When patients have problems such as ringing in the ears, unexplained fullness, imbalance and/or dizziness more complicated tests may be required to diagnose what is causing these symptoms.

What is a VNG?

VNG stands for “videonystagmography.” This test looks at how the balance system connects to eye movement. The patient wears a pair of video recording goggles while the audiologist records the eye movements. It is a very easy test to perform. The first part of the tests records eye movement while a light moves around a screen. The second part records eye movements during and after head and body movements. The final part records eye movements while stimulating the inner ear. This is accomplished by briefly putting cool then warm air into each ear canal.

What is an ABR?

ABR stands for “Auditory Brainstem Response.” This test measures the timing of the cranial nerve that transmits information from the inner ear up into the brainstem. The Audiologist inserts earphones into each ear and attaches recording electrodes on the patient’s head. The patient’s only requirement is to lay still and quiet on a comfortable table. The patient will hear loud clicks in both ears. Then the audiologist measures the response of each ear on a computer. The audiologist is then able to determine if there are any auditory nerve problems that your physician should be aware of.

What is a VEMP?

VEMP stands for “vestibular evoked myogenic potential.” This study takes approximately 45 minutes and evaluates a different part of the inner ear balance system not tested by the VNG or ABR tests. The balance part of the inner ear is stimulated through loud clicking sounds and is measured through recording electrodes placed on the patient’s neck. The patient lies on a table and is asked to contract a muscle in the neck by lifting and turning his/her head. Each side is measured separately.

Will I get dizzy during these tests?

Some people feel a small amount of motion while the ears are being stimulated in the VNG. This is normal and completely temporary. The tests will not make your symptoms worse or provoke an attack. It is normal to feel a little bit “off” after the tests are complete. But again this is temporary. Dizziness does not typically occur after an ABR or VEMP test.

How long does each test take?

VNG approximately 1 hour

ABR approximately 30 minutes

VEMP approximately 45 minutes

Do I need to have every test performed?

In some instances, all three tests will be necessary to come to a better diagnosis of what is causing a patient’s symptoms. In other instances a VNG is sufficient to accurately diagnose the problem. It is important to remember that with a more complete picture of the balance system your physician is better able to make appropriate recommendations for treatment. Traditionally a VNG is requested first by your physician. Depending on those results, a VEMP and/or ABR may be necessary to complete the testing and will be performed at a subsequent appointment.