

Vestibular Function Testing

Policy Number: PG0323

Last Reviewed Date: 01/01/2025

Revised Date: 01/01/2025

HMO AND PPO

ELITE (MEDICARE ADVANTAGE)

MARKETPLACE

GUIDELINES:

- This policy does not certify benefits or authorization of benefits, which is designated by each individual policyholder terms, conditions, exclusions, and limitations contract. It does not constitute a contract or guarantee regarding coverage or reimbursement/payment. Self-Insured group specific policy will supersede this general policy when group supplementary plan document or individual plan decision directs otherwise.
- Paramount applies coding edits to all medical claims through coding logic software to evaluate the accuracy and adherence to accepted national standards.
- This medical policy is solely for guiding medical necessity and explaining correct procedure reporting used to assist in making coverage decisions and administering benefits.

SCOPE:

☒ Professional

☒ Facility

DESCRIPTION:

The vestibular system is the system of balance and equilibrium. Maintenance of balance is a complex physiologic process, requiring interactions of the vestibular, visual, and proprioceptive/somatosensory systems along with central reflex mechanisms. The vestibuloocular reflex (VOR) is a reflex that acts at short latency to generate eye movements that compensate for head rotations in order to preserve clear vision during locomotion. The VOR is the most accessible gauge of vestibular function and forms the basis for many of the clinical tests used to evaluate balance function. Balance is additionally influenced by the general health of the patient (i.e., muscle tone, strength, range of motion).

Vestibular function testing are tests of an individual's balance and equilibrium. The tests are used to determine potential causes of balance disturbances and help to determine if there is a problem with the vestibular portion of the brainstem and inner ear. The balance system depends on the inner ear, the eyes, and the muscles and joints to send information related to the body's movement and orientation in space. When there are problems with the inner ear or other parts of the balance system, the patient may present with symptoms of vertigo, dizziness, imbalance, or other symptoms.

Methods for the evaluation of chronic vertigo include, not all-inclusive:

Spontaneous nystagmus testing involves observing the patient's eyes as they are asked to look straight ahead, 30 degrees to 45 degrees to the right and 30 degrees to 45 degrees to the left. No electrodes are used, and no recording is made.

Caloric vestibular test requires each ear to be separately irrigated with cold water and warm water, for a total of four (4) irrigations, to create nystagmus in the individual. The patient is observed for any difference between the reaction of the right and the left sides. This testing can be performed with or without recording.

Dynamic or head shaking visual acuity testing involves the patient looking at an eye chart in the distance wearing their customary distance vision eyeglasses, the patient is asked to read the eye chart while their head is shaken continuously over a small range. Then, the patient reads the chart again while their head is still. A computerized system may be utilized as well to test for dynamic visual acuity.

Head impulse or head thrust testing requires the patient to wear their usual prescription eyeglasses and is instructed to keep their eyes on a distant target, while the head is then turned quickly and unpredictably by the examiner. The normal response is that the eyes remain on the target.

Optokinetic nystagmus testing involves a rotating drum made of alternating light and dark vertical stripes, which is placed in front of the patient where the patient stares at the drum without focusing on any one stripe. The eyes are observed for nystagmus while the drum is rotated in one direction. The direction of the drum is reversed. No electrodes are used.

Electronystagmography (ENG) is used to assess patients with vestibular disorders (e.g., dizziness, vertigo, or balance dysfunction). It provides objective testing of the oculomotor and vestibular systems. With electronystagmography (ENG), eye movements are recorded and analyzed via small electrodes placed on the skin around the eyes. The testing is generally the same as the caloric vestibular test, optokinetic nystagmus test, positional nystagmus test and/or spontaneous nystagmus test; however, in this variation, the results are recorded in addition to being observed.

Positional nystagmus testing (Barany or Dix-Hallpike maneuver) involves the patient rapidly moving from the sitting to the lying position while the head is tilted downward off the table at 45 degrees and rotated 45 degrees to one side determining whether the eyes can maintain a static position when the head is in a different position.

Videonystagmography (VNG) is a technology for evaluating inner ear and central motor functions and is similar to electronystagmography, but eye movements are recorded by an infrared video camera mounted inside goggles that the patient wears instead of sticky-patch electrodes. The testing is generally the same as the caloric vestibular test, optokinetic nystagmus test, positional nystagmus test and/or spontaneous nystagmus test; however, in this variation, the results are recorded in addition to being observed.

Rotary chair testing involves sitting in a rotational computerized chair with a seat belt and security head strap. A pair of infrared video goggles are worn to record eye movements in response to movements of the chair. This test is usually an addition to ENG and videonystagmography (VNG) testing.

Vestibular evoked myogenic potential (VEMP) testing, also known as click evoked neurogenic vestibular potential testing, is a noninvasive, neurophysiological test used to determine the function of vestibular organs in the inner ear, specifically the utricle and saccule. Headphones are placed over the ears and small electrodes are attached with an adhesive to the skin over the neck muscles. When sound is transmitted through the headphones, the electrodes record the response of the muscle to the vestibular stimuli. VEMP testing has been investigated in the diagnosis and management of several disorders, including superior canal dehiscence, benign paroxysmal positional vertigo, Ménière's disease, vestibular schwannoma, vestibular neuritis, otosclerosis, and multiple sclerosis. The test measures a muscle reflex evoked by stimulation of the vestibular organs and recorded from electrodes placed on the skin over tensed sternocleidomastoid muscles in the neck (cervical VEMP) or over extraocular muscles beneath the eyes (ocular VEMP). Vestibular stimulation is performed using a loud sound or vibration. Variations in the response of the muscle to the vestibular stimulation, such as absent or decreased electrical activity in the muscle has been associated with certain disorders. The U.S. Food and Drug Administration (FDA) has not approved specific devices for VEMP testing. Commercially available auditory brainstem response (ABR) equipment can be adapted to perform VEMP testing.

Vestibular autorotation test (VAT) is a high frequency, active head rotation (AHR) test to subjectively evaluate the VOR and its function. Patients wear a lightweight head-strap with a velocity sensor on the back. During this test, the patient is instructed to rotate the head from side to side horizontally or vertically to an auditory cue at frequencies ranging from 2 to 6 Hz. Eye movements are recorded using EOG that records the direction, amplitude, and velocity of eye movements; and head movements are recorded by the velocity rate sensor attached to the head.

Vibration induced nystagmus testing (VIN), skull vibration induced nystagmus testing (SVINT), bone conduction vibration testing involves a vibrating tuning fork or a battery-operated vibration device that is

placed at various points on the head and neck, usually on the mastoid bone, while eye movements are observed.

Computerized dynamic posturography (CDP) has been proposed as an alternative to standard diagnostic tests to measure a patient's ability to maintain balance under varying conditions, when the usual cues that one relies upon to remain upright, vision, proprioception, and vestibular function, are manipulated. During this noninvasive test, the individual stands on a platform that records postural adjustments. In conjunction with computer software, these movements are observed, recorded, and measured with eyes open, shut or while wearing special goggles for controlled visual stimulation. The goal of testing is to isolate vestibular symptoms, quantify the severity of balance problems to a specific cause that can often be treated. CDP testing has additionally been referred to as balance board testing, equilibrium platform testing or vertical testing. The most commonly studied CDP device is the EquiTest (NeuroCom International Inc.)

Tilt table testing is used to evaluate the cause of unexplained syncope; the tilt test begins with the patient securely strapped to a special table in a supine (flat) position for approximately 15 minutes. The table is then quickly lifted to an angled position similar to that of standing for approximately 45 minutes. The patient's heart rate and blood pressure are monitored continuously throughout the test to record changes that would be similar to a syncopal episode.

POLICY:

Paramount Commercial Insurance Plans and Elite (Medicare Advantage) Plans

- **Vestibular function testing (92537, 92538, 92540, 92541, 92542, 92544, 92545, 92546, and 92547), are covered, without a prior authorization, when the coverage criteria indicated below is met.**
- **Effective 03/01/2025:** Computerized Dynamic Posturography, (92548 and 92549), based upon our findings, Paramount has determined computerized dynamic posturography has not demonstrated equivalence or superiority to currently accepted standard diagnostic techniques. Paramount considers computerized dynamic posturography experimental/investigational and not eligible for reimbursement.
- **Effective 07/01/2024, Vestibular Evoked Myogenic Potential Testing (92517, 92518, 92519) are covered, without a prior authorization, when the coverage criteria indicated below is met.**
- **Codes 92531, 92532, 92533, 92534, not all-inclusive, are considered integral to the basic vestibular evaluation or examination during an office visit and not separately reimbursable.**
- **Vestibular autorotation testing (VAT), and tilt table testing (related to recurrent vertigo) are non-covered.**

COVERAGE CRITERIA:

Paramount Commercial Insurance Plans and Elite (Medicare Advantage) Plans

Paramount considers any of the following quantitative vestibular tests (CPT Codes 92531, 92532, 92533, 92534, 92537, 92538, 92540, 92541, 92542, 92544, 92545, 92546, and 92547) medically necessary, when a vestibular abnormality is suspected (vertiginous syndromes and other disorders of vestibular system, or sensorineural hearing loss, or dizziness and giddiness), and the clinical evaluation fails to confirm the diagnosis:

- Caloric vestibular testing
- Dynamic or head shaking acuity testing
- Head impulse or head thrust testing
- Fistula pressure test
- Optokinetic nystagmus test
- Spontaneous nystagmus test
- Positional nystagmus test (Barany or Dix-Hallpike maneuver). Medically indicated for the diagnosis of benign paroxysmal positioning vertigo (BPPV) (92532)
- Rotary chair testing
- Saccadic testing
- Vibration induced nystagmus testing (VIN), skull vibration induced nystagmus testing (SVINT), bone conduction vibration

- Electronystagmography (ENG). Medically indicated for evaluation of persons with symptoms of vestibular disorders (dizziness, vertigo, disequilibrium, or imbalance).
- Videonystagmography (VNG). Medically indicated alternative to ENG for assessment of vestibular disorders.

Vestibular function testing for the assessment of typical benign paroxysmal positional vertigo that can be diagnosed clinically is considered not medically necessary.

Repeat vestibular function testing when treatment resolves symptoms are considered not medically necessary

Cervical vestibular evoked myogenic potential (cVEMP) testing and ocular vestibular evoked myogenic potential (oVEMP) testing are assessment techniques used to evaluate otolith and vestibular nerve function. Paramount considers cVEMP and/or oVEMP testing: (CPT Codes 92517, 92518, 92519) medically necessary and eligible for reimbursement only for the detection of superior semicircular canal dehiscence syndrome.

cVEMP and/or oVEMP testing is considered experimental/investigational for all other indications, including evaluation of vestibular function specifically related to the saccule/utricle and diagnosis of benign paroxysmal positional vertigo or vestibular neuritis.

Computerized dynamic posturography (CDP) testing, (CPT codes 92548, 92549) also called balance board testing or equilibrium platform testing (EPT), is unproven and not medically necessary for evaluating any condition including but not limited to balance disorders due to insufficient evidence of efficacy.

Dynamic posturography for physical therapy or rehabilitation therapy evaluation or monitoring of progress is not covered based on there is no scientific evidence of effectiveness, considered experimental/investigational.

Note: All tests for evaluation of vestibular disorders may be performed only by licensed audiologists with a physician's order; by a licensed physician (preferably with certification by the American Board of Medical Specialties in Otolaryngology, Neurology, or Otolology/Neurology); or by personnel employed incident to a physician. These services are not appropriate if furnished by physical or occupational therapists.

NONCOVERAGE:

Paramount Commercial Plans and Elite (Medicare Advantage) Plans

Paramount considers all the following tests experimental/investigational for all indications:

- Cervical vestibular evoked myogenic potential (cVEMP) and/or ocular evoked myogenic potential (oVEMP) testing: (92517, 92518, 92519), including but not limited to the evaluation of vestibular function specifically related to the saccule/utricle and diagnosis of benign paroxysmal positional vertigo or vestibular neuritis. **Exclusion:** Allowance/coverage for the detection of superior semicircular canal dehiscence syndrome, see coverage above.
- Vestibular autorotation test (VAT) is considered not medically necessary and experimental/investigational for the diagnosis of individuals with vestibular disorders or any other indications because its sensitivity, specificity, reproducibility, and clinical utility have not been demonstrated. There is no specific code for the vestibular autorotation test (VAT).
- Tilt table testing for evaluation of chronic vertigo is considered experimental/investigational, as it is not identified as widely used and generally accepted for the proposed use as reported in nationally recognized peer-reviewed medical literature. [Note: tilt table testing related to syncope should only be performed following a cardiologist evaluation and direction, (93660-evaluation of cardiovascular function with tilt table evaluation, with continuous ECG monitoring and intermittent blood pressure monitoring, with or without pharmacological intervention).]
- Sensory organization test (SOT), also known as the gans sensory organization performance test (SOP); modified clinical test of sensory interaction on balance (mCTSIB); and movement coordination test (MCT) are components of dynamic posturography and are considered experimental and investigational.
- Mastoid oscillation (mastoid vibration) experimental and investigational for persons treated with canalith repositioning procedure because of insufficient evidence of this approach.

- Meniett low-pressure pulse generator for the treatment of Meniere's disease, nausea/vomiting, and tinnitus experimental and investigational because its effectiveness has not been established.
- Brainstem auditory evoked potentials (BAEPs) experimental and investigational for evaluation of individuals with vertigo because the effectiveness of this approach has not been established.
- Cochlear hydrops analysis masking procedure (CHAMP) testing experimental and investigational in the evaluation of Meniere's disease because the effectiveness of this approach has not been established.

CODING/BILLING INFORMATION:

The appearance of a code in this section does not necessarily indicate coverage. Codes that are covered may have selection criteria that must be met. Payment for supplies may be included in payment for other services rendered.

CPT CODES	
92517	Vestibular evoked myogenic potential (VEMP) testing, with interpretation and report; cervical (cVEMP)
92518	Vestibular evoked myogenic potential (VEMP) testing, with interpretation and report; ocular (oVEMP)
92519	Vestibular evoked myogenic potential (VEMP) testing, with interpretation and report; cervical (cVEMP) and ocular (oVEMP)
92531	Spontaneous nystagmus, including gaze
92532	Positional nystagmus test
92533	Caloric vestibular test, each irrigation (binaural, bithermal, stimulation constitutes four tests)
92534	Optokinetic nystagmus test
92537	Caloric vestibular test with recording, bilateral; bithermal (i.e., one warm and one cool irrigation in each ear for a total of four irrigations)
92538	Caloric vestibular test with recording, bilateral; monothermal (i.e., one irrigation in each ear for a total of two irrigations)
92540	Basic vestibular evaluation, includes spontaneous nystagmus test with eccentric gaze fixation nystagmus, with recording, positional nystagmus test, minimum of four positions, with recording, optokinetic nystagmus test, bidirectional foveal and peripheral stimulation, with recording and oscillating tracking test, with recording
92541	Spontaneous nystagmus test, including gaze and fixation nystagmus, with recording
92542	Positional nystagmus test, minimum of four positions, with
92544	Optokinetic nystagmus test, bidirectional, foveal, or peripheral stimulation, with recording
92545	Oscillating tracking test, with recording
92546	Sinusoidal vertical axis rotational testing
92547	Use of vertical electrodes
92548	Computerized dynamic posturography NonCovered Effective 02/01/2025
92549	Computerized dynamic posturography with motor control test (MCT) and adaptation test (ADT) NonCovered Effective 02/01/2025
92700	Unlisted otorhinolaryngological service or procedure (Vestibular autorotation test (VAT) is non-Covered)

REVISION HISTORY EXPLANATION: ORIGINAL EFFECTIVE DATE: 08/20/2015

Date	Explanation & Changes
08/20/15	<ul style="list-style-type: none"> • Policy created to reflect most current clinical evidence per TAWG
07/22/16	<ul style="list-style-type: none"> • Policy reviewed and updated to reflect most current clinical evidence per TAWG
01/10/17	<ul style="list-style-type: none"> • Policy title changed from Vestibular Evoked Myogenic Potential (VEMP) Testing to Vestibular Function Testing • Added codes 92531, 92532, 92533, 92534 as bundled for all product lines • Added codes 92537, 92538, 92540, 92541, 92542, 92544, 92545, 92546, 92547, 92548 as covered without prior authorization for all product lines • Policy reviewed and updated to reflect most current clinical evidence per Medical Policy Steering Committee
11/01/20	<ul style="list-style-type: none"> • Policy reviewed and updated to reflect most current clinical evidence

	<ul style="list-style-type: none"> Added procedure code 92549 Effective 12/1/2020: Computerized Dynamic Posturography, procedures 92548 and 92549, are covered with a prior authorization
12/21/2020	<ul style="list-style-type: none"> Medical policy placed on the new Paramount Medical Policy Format
07/13/2021	<ul style="list-style-type: none"> Added the new 2021 CPT codes 92517-92519 Procedures 92517-92519 are noncovered – Vestibular evoked myogenic potential (VEMP) testing, for all product lines except Advantage. Procedures 92517-92519, are covered without a prior authorization for Advantage members
02/22/2023	<ul style="list-style-type: none"> Medical Policy updated to reflect Medicaid coverage to Anthem as of 02/01/2023
03/08/2024	<ul style="list-style-type: none"> Medical policy placed on the new Paramount Medical Policy Format
07/01/2024	<ul style="list-style-type: none"> Medical Policy reviewed and updated to reflect the most current clinical evidence Effective 07/01/2024, vestibular evoked myogenic potential testing (92517, 92518, 92519) are covered, without a prior authorization, when the coverage criteria are met.
01/01/2025	<ul style="list-style-type: none"> Medical Policy reviewed and updated to reflect the most current clinical evidence Effective 03/01/2025 Computerized Dynamic Posturography (CDP) testing, procedures 92548 and 92549, are noncovered for all product lines. The medical policy scope has added Facility to the already included Professional

Paramount reserves the right to review and revise our policies periodically when necessary. When there is an update, we will publish the most current policy to

<https://www.paramounthealthcare.com/providers/medical-policies/policy-library>

REFERENCES/RESOURCES

Centers for Medicare and Medicaid Services, CMS Manual System and other CMS publications and services <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals> <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Internet-Only-Manuals-IOMs>

Centers for Medicare & Medicaid Services. Evoked Response Tests (160.10). National coverage determination. Effective date January 15, 1980.

<https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?lcdid=33966&ver=18&bc=CAAAAAAAAAAAAA>

<https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?LCDId=35007&ver=81&articleid=57434&bc=CAAAAAAAEAAAAAAAA>

<https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcdid=34537&ver=45&bc=0>

American Medical Association, *Current Procedural Terminology (CPT®)* and associated publications and services <https://www.ama-assn.org/amaone/cpt-current-procedural-terminology>

Centers for Medicare and Medicaid Services, Healthcare Common Procedure Coding System, HCPCS Release and Code Sets <https://www.cms.gov/Medicare/Coding/HCPCSReleaseCodeSets/HCPCS-Quarterly-Update>

Hayes, Inc., <https://www.hayesinc.com/>

Hayes, Inc. (August 9, 2021). Computerized Dynamic Posturography for Diagnosis of Vestibular Disorders. Dallas, TX. Annual Review October 24, 2023.

Industry Standard Review