

POLICY TITLE	DYNAMIC POSTUROGRAPHY	
POLICY NUMBER	MP 2.011	

Effective Date:	9/1/2023
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POLICY PRODUCT VARIATIONS DESCRIPTION/BACKGROUND

RATIONALE DEFINITIONS

DISCLAIMED CODING INFORMATION REFERENCES

<u>DISCLAIMER</u> <u>CODING INFORMATION</u> <u>REFERENCES</u> POLICY HISTORY

I. POLICY

Dynamic posturography is considered **investigational**. There is insufficient evidence to support a general conclusion concerning the health outcomes or benefits associated with this procedure.

II. PRODUCT VARIATIONS TOP

This policy is only applicable to certain programs and products administered by Capital Blue Cross and subject to benefit variations as discussed in Section VI. Please see additional information below.

FEP PPO: Refer to FEP Medical Policy Manual. The FEP Medical Policy manual can be found at: https://www.fepblue.org/benefit-plans/medical-policies-and-utilization-management-quidelines/medical-policies.

III. DESCRIPTION/BACKGROUND

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Balance Disorders

Complaints of imbalance are common in older adults and contribute to the risk of falling in this population. Falls are an important cause of death and disability in this population in the United States. Maintenance of balance is a complex physiologic process, requiring the interaction of the vestibular, visual, and proprioceptive/somatosensory system, and central reflex mechanisms. Balance is also influenced by the general health of the patient (ie, muscle tone, strength, range of motion). Therefore, identifying and treating the underlying balance disorder can be difficult. Commonly used balance function tests (eg, electronystagmography, rotational chair tests) attempt to measure the extent and site of a vestibular lesion but do not assess the functional ability to maintain balance.

Role in Diagnosis

Dynamic Posturography aims to provide quantitative information on a patient's functional ability to maintain balance. The patient, wearing a harness to prevent falls, stands on an enclosed platform surrounded by a visual field. By altering the angle of the platform or shifting the visual field, the test assesses movement coordination and the sensory organization of visual, somatosensory, and vestibular information relevant to postural control. The patient undergoes 6 different testing situations designed to evaluate the vestibular, visual, and proprioceptive/somatosensory components of balance. In general terms, the test measures an individual's balance (as measured by a force platform to calculate the movement of the patient's center of mass) while visual and somatosensory cues are altered. These tests vary by whether eyes are open or closed, the platform is fixed or sway-referenced, and whether the visual



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surround is fixed or sway-referenced. Sway-referencing involves making instantaneous computer-aided alterations to the platform or visual surround to coincide with changes in body position produced by sway. The purpose of sway-referencing is to cancel out accurate feedback from somatosensory or visual systems that are normally involved in maintaining balance. In the first 3 components of the test, the support surface is stable, and visual cues are either present, absent, or sway-referenced. In tests 4 to 6, the support surface is sway-referenced to the individual, and visual cues are either present, absent, or sway-referenced. In tests 5 and 6, the only accurate sensory cues available for balance are vestibular cues. Results of computerized dynamic posturography have been used to determine what type of information (ie, visual, vestibular, proprioceptive) can and cannot be used to maintain balance. Dynamic posturography cannot be used to localize the site of a lesion.

Posturography tests a patient's balance control in situations intended to isolate factors that affect balance in everyday experiences. Balance can be rapidly assessed qualitatively by asking the patient to maintain a steady stance on a flat or compressible surface (ie, foam pads) with the eyes open or closed. By closing the eyes, the visual input into balance is eliminated. Use of foam pads eliminates the sensory and proprioceptive cues. Therefore, the only vestibular input is available when standing on a foam pad with eyes closed.

Regulatory Status

In 1985, the NeuroCom EquiTest® (NeuroCom International, Portland, OR; now Clackamas, OR), a dynamic posturography device, was cleared for marketing by the U.S. Food and Drug Administration through the 510(k) process. Other dynamic posturography device makers include Vestibular Technologies (Cheyenne, WY) and Medicapteurs (Balma, France). Companies that previously manufactured dynamic posturography devices include Metitur (Jyvaskyla, Finland) and Micromedical Technology (Chatham, IL). Food and Drug Administration product code: LXV.

IV. RATIONALE TOP

Summary of Evidence

For individuals with suspected balance disorders who receive dynamic posturography, the evidence includes cross-sectional comparisons of results in patients with balance disorders and healthy controls and retrospective case series reporting outcomes for patients assessed with dynamic posturography as part of clinical care. Relevant outcomes are test accuracy and validity, symptoms, and morbid events. There are no generally accepted reference standards for dynamic posturography, which makes it difficult to determine how testing results can be applied to clinical care. There are no studies demonstrating the clinical utility of the test that would lead to changes in management that improve outcomes (eg, symptoms, function). The evidence is insufficient to determine the effects of the technology on health outcomes.

V. DEFINITIONS TOP

NA

VI. BENEFIT VARIATIONS TOP

The existence of this medical policy does not mean that this service is a covered benefit under the member's health benefit plan. Benefit determinations should be based in all cases on the applicable health benefit plan language. Medical policies do not constitute a description of



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benefits. A member's health benefit plan governs which services are covered, which are excluded, which are subject to benefit limits and which require preauthorization. There are different benefit plan designs in each product administered by Capital Blue Cross. Members and providers should consult the member's health benefit plan for information or contact Capital Blue Cross for benefit information.

VII. DISCLAIMER TOP

Capital Blue Cross's medical policies are developed to assist in administering a member's benefits, do not constitute medical advice, and are subject to change. Treating providers are solely responsible for medical advice and treatment of members. Members should discuss any medical policy related to their coverage or condition with their provider and consult their benefit information to determine if the service is covered. If there is a discrepancy between this medical policy and a member's benefit information, the benefit information will govern. If a provider or a member has a question concerning the application of this medical policy to a specific member's plan of benefits, please contact Capital Blue Cross' Provider Services or Member Services. Capital Blue Cross considers the information contained in this medical policy to be proprietary and it may only be disseminated as permitted by law.

VIII. CODING INFORMATION

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Note: This list of codes may not be all-inclusive, and codes are subject to change at any time. The identification of a code in this section does not denote coverage as coverage is determined by the terms of member benefit information. In addition, not all covered services are eligible for separate reimbursement.

Investigational; therefore, not covered

Procedure Codes								
92548	92549							

IX. REFERENCES TOP

- 1. Blue Cross and Blue Shield Association Technology Evaluation Center (TEC). Dynamic posturography in the assessment of vestibular dysfunction. TEC Assessment. 1996; Volume 11:Tab 11
- 2. Fritz NE, Newsome SD, Eloyan A, et al. Longitudinal relationships among posturography and gait measures in multiple sclerosis. Neurology. May 19 2015; 84(20): 2048-56. PMID 25878185
- 3. Ferrazzoli D, Fasano A, Maestri R, et al. Balance Dysfunction in Parkinson's Disease: The Role of Posturography in Developing a Rehabilitation Program. Parkinsons Dis. 2015; 2015: 520128. PMID 26504611
- 4. Buatois S, Gueguen R, Gauchard GC, et al. Posturography and risk of recurrent falls in healthy non-institutionalized persons aged over 65. Gerontology. 2006; 52(6): 345-52. PMID 16905886
- 5. Girardi M, Konrad HR, Amin M, et al. Predicting fall risks in an elderly population: computer dynamic posturography versus electronystagmography test results. Laryngoscope. Sep 2001; 111(9): 1528-32. PMID 11568601



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- 6. Sinaki M, Lynn SG. Reducing the risk of falls through proprioceptive dynamic posture training in osteoporotic women with kyphotic posturing: a randomized pilot study. Am J Phys Med Rehabil. Apr 2002; 81(4): 241-6. PMID 11953540
- 7. Whitney SL, Marchetti GF, Schade AI. The relationship between falls history and computerized dynamic posturography in persons with balance and vestibular disorders. Arch Phys Med Rehabil. Mar 2006; 87(3): 402-7. PMID 16500176
- 8. Ganesan M, Pasha SA, Pal PK, et al. Direction specific preserved limits of stability in early progressive supranuclear palsy: a dynamic posturographic study. Gait Posture. Apr 2012; 35(4): 625-9. PMID 22225854
- 9. Lee JM, Koh SB, Chae SW, et al. Postural instability and cognitive dysfunction in early Parkinson's disease. Can J Neurol Sci. Jul 2012; 39(4): 473-82. PMID 22728854
- 10. Pierchala K, Lachowska M, Morawski K, et al. [Sensory Organization Test outcomes in young, older and elderly healthy individuals--preliminary results]. Otolaryngol Pol. Jul-Aug 2012; 66(4): 274-9. PMID 22890532
- 11. Biggan JR, Melton F, Horvat MA, et al. Increased load computerized dynamic posturography in prefrail and nonfrail community-dwelling older adults. J Aging Phys Act. Jan 2014; 22(1): 96-102. PMID 23416307
- 12. Lim KB, Lee HJ. Computerized posturographic measurement in elderly women with unilateral knee osteoarthritis. Ann Rehabil Med. Oct 2012; 36(5): 618-26. PMID 23185725
- 13. Alahmari KA, Marchetti GF, Sparto PJ, et al. Estimating postural control with the balance rehabilitation unit: measurement consistency, accuracy, validity, and comparison with dynamic posturography. Arch Phys Med Rehabil. Jan 2014; 95(1): 65-73. PMID 24076084
- 14. Teggi R, Caldirola D, Fabiano B, et al. Rehabilitation after acute vestibular disorders. J Laryngol Otol. Apr 2009; 123(4): 397-402. PMID 18549515
- 15. Badke MB, Miedaner JA, Shea TA, et al. Effects of vestibular and balance rehabilitation on sensory organization and dizziness handicap. Ann Otol Rhinol Laryngol. Jan 2005; 114(1 Pt 1): 48-54. PMID 15697162
- 16. Badke MB, Shea TA, Miedaner JA, et al. Outcomes after rehabilitation for adults with balance dysfunction. Arch Phys Med Rehabil. Feb 2004; 85(2): 227-33. PMID 14966706
- 17. Brown KE, Whitney SL, Marchetti GF, et al. Physical therapy for central vestibular dysfunction. Arch Phys Med Rehabil. Jan 2006; 87(1): 76-81. PMID 16401442
- 18. Hirsch MA, Toole T, Maitland CG, et al. The effects of balance training and high-intensity resistance training on persons with idiopathic Parkinson's disease. Arch Phys Med Rehabil. Aug 2003; 84(8): 1109-17. PMID 12917847
- 19. Nocera J, Horvat M, Ray CT. Effects of home-based exercise on postural control and sensory organization in individuals with Parkinson disease. Parkinsonism Relat Disord. Dec 2009; 15(10): 742-5. PMID 19640769
- 20. Lundin F, Ledin T, Wikkelso C, et al. Postural function in idiopathic normal pressure hydrocephalus before and after shunt surgery: a controlled study using computerized dynamic posturography (EquiTest). Clin Neurol Neurosurg. Sep 2013; 115(9): 1626-31. PMID 23489444
- 21. American Academy of Otolaryngology-Head and Neck Surgery. Position Statement: Posturography. 2007 (revised 2014)



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- 22. Bhattacharyya N, Gubbels SP, Schwartz SR, et al. Clinical Practice Guideline: Benign Paroxysmal Positional Vertigo (Update). Otolaryngol Head Neck Surg. Mar 2017; 156(3 suppl): S1-S47. PMID 28248609
- 23. Blue Cross Blue Shield Association Medical Policy Reference Manual. 2.01.02, Dynamic Posturography. March 2023

X. POLICY HISTORY

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MP 2.011	1/1/2020 Coding updated. Added new code 92549.				
	3/23/2020 Consensus review. Coding reviewed. Policy statement unchanged. References updated. Product variations updated.				
	4/15/2021 Consensus review. No changes to coding. References updated.				
	3/7/2022 Consensus review. No changes to coding.				
	1/3/2023 Consensus review. Policy statement unchanged. References				
	reviewed and updated.				
	5/22/2023 Consensus review. Policy statement unchanged. References				
	reviewed and updated.				

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