

Subject:	Vestibular Function Testing	Publish Date:	01/03/2024
Guideline #:	CG-MED-94	Last Review Date:	11/09/2023
Status:	New		

Description

This document addresses the use of selected tests of vestibular function. Specifically, this document addresses the use of electronystagmography (ENG) and videonystagmography (VNG), caloric testing, and rotational chair testing.

Clinical Indications

Medically Necessary:

Vestibular function testing (that is, electronystagmography, videonystagmography, caloric testing, or rotational chair testing) is considered medically necessary under the following circumstances:

- 1. There are symptoms of a vestibular disorder (for example, dizziness, vertigo, imbalance); and**
- 2. Diagnosis by clinical exam could not be established.**

Not Medically Necessary:

Vestibular function testing is considered not medically necessary when the above criteria have not been met.

Coding

The following codes for treatments and procedures applicable to this guideline are included below for informational purposes. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement policy. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

When services may be Medically Necessary when criteria are met:

CPT

Federal and State law, as well as contract language, and Medical Policy take precedence over Clinical UM Guidelines. We reserve the right to review and update Clinical UM Guidelines periodically. Clinical guidelines approved by the Medical Policy & Technology Assessment Committee are available for general adoption by plans or lines of business for consistent review of the medical necessity of services related to the clinical guideline when the plan performs utilization review for the subject. Due to variances in utilization patterns, each plan may choose whether to implement a particular Clinical UM Guideline. To determine if review is required for this Clinical UM Guideline, please contact the customer service number on the member's card.

Alternatively, commercial or FEP plans or lines of business which determine there is not a need to adopt the guideline to review services generally across all providers delivering services to Plan's or line of business's members may instead use the clinical guideline for provider education and/or to review the medical necessity of services for any provider who has been notified that his/her/its claims will be reviewed for medical necessity due to billing practices or claims that are not consistent with other providers, in terms of frequency or in some other manner.

No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, or otherwise, without permission from the health plan.

This Clinical UM Guideline is intended to provide assistance in interpreting Healthy Blue's standard Medicaid benefit plan. When evaluating insurance coverage for the provision of medical care, federal, state and/or contractual requirements must be referenced, since these may limit or differ from the standard benefit plan. In the event of a conflict, the federal, state and/or contractual requirements for the applicable benefit plan coverage will govern. Healthy Blue reserves the right to modify its Policies and Guidelines as necessary and in accordance with legal and contractual requirements. This Clinical UM Guideline is provided for informational purposes. It does not constitute medical advice. Healthy Blue may also use tools and criteria developed by third parties, to assist us in administering health benefits. Healthy Blue's Policies and Guidelines are intended to be used in accordance with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice.

Clinical UM Guideline

Vestibular Function Testing

<u>92537</u>	<u>Caloric vestibular test with recording, bilateral; bithermal (ie, one warm and one cool irrigation in each ear for a total of four irrigations)</u>
<u>92538</u>	<u>Caloric vestibular test with recording, bilateral; monothermal (ie, one irrigation in each ear for a total of two irrigations)</u>
<u>92540</u>	<u>Basic vestibular evaluation, includes spontaneous nystagmus test with eccentric gaze fixation nystagmus, with recording, positional nystagmus test, minimum of 4 positions, with recording, optokinetic nystagmus test, bidirectional foveal and peripheral stimulation, with recording, and oscillating tracking test, with recording</u>
<u>92541</u>	<u>Spontaneous nystagmus test, including gaze and fixation nystagmus, with recording</u>
<u>92542</u>	<u>Positional nystagmus test, minimum of 4 positions, with recording</u>
<u>92544</u>	<u>Optokinetic nystagmus test, bidirectional, foveal or peripheral stimulation, with recording</u>
<u>92545</u>	<u>Oscillating tracking test, with recording</u>
<u>92546</u>	<u>Sinusoidal vertical axis rotational testing</u>

ICD-10 Diagnosis

<u>H81.01-H81.93</u>	<u>Disorders of vestibular function</u>
<u>H82.1-H82.9</u>	<u>Vertiginous syndromes in diseases classified elsewhere</u>
<u>H83.01-H83.09</u>	<u>Labyrinthitis</u>
<u>H83.2X1-H83.2X9</u>	<u>Labyrinthine dysfunction</u>
<u>R11.0-R11.2</u>	<u>Nausea and vomiting</u>
<u>R26.81-R26.89</u>	<u>Other abnormalities of gait and mobility</u>
<u>R27.0-R27.9</u>	<u>Other lack of coordination</u>
<u>R42</u>	<u>Dizziness and giddiness</u>
<u>R55</u>	<u>Syncope and collapse</u>

When services are Not Medically Necessary:

For the procedure codes listed above when criteria are not met or for all other diagnoses not listed.

Discussion/General Information

The vestibular system creates our senses of balance and equilibrium. This system works with other sensorimotor systems in the body, such as the visual system and skeletal system, to monitor and maintain the position of the body at rest or in motion. The vestibular system includes peripheral and central components. Peripherally, semicircular canals in the inner ears sense rotational movement of the head. The utricles and

Federal and State law, as well as contract language, and Medical Policy take precedence over Clinical UM Guidelines. We reserve the right to review and update Clinical UM Guidelines periodically. Clinical guidelines approved by the Medical Policy & Technology Assessment Committee are available for general adoption by plans or lines of business for consistent review of the medical necessity of services related to the clinical guideline when the plan performs utilization review for the subject. Due to variances in utilization patterns, each plan may choose whether to implement a particular Clinical UM Guideline. To determine if review is required for this Clinical UM Guideline, please contact the customer service number on the member's card.

Alternatively, commercial or FEP plans or lines of business which determine there is not a need to adopt the guideline to review services generally across all providers delivering services to Plan's or line of business's members may instead use the clinical guideline for provider education and/or to review the medical necessity of services for any provider who has been notified that his/her/its claims will be reviewed for medical necessity due to billing practices or claims that are not consistent with other providers, in terms of frequency or in some other manner.

No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, or otherwise, without permission from the health plan.

This Clinical UM Guideline is intended to provide assistance in interpreting Healthy Blue's standard Medicaid benefit plan. When evaluating insurance coverage for the provision of medical care, federal, state and/or contractual requirements must be referenced, since these may limit or differ from the standard benefit plan. In the event of a conflict, the federal, state and/or contractual requirements for the applicable benefit plan coverage will govern. Healthy Blue reserves the right to modify its Policies and Guidelines as necessary and in accordance with legal and contractual requirements. This Clinical UM Guideline is provided for informational purposes. It does not constitute medical advice. Healthy Blue may also use tools and criteria developed by third parties, to assist us in administering health benefits. Healthy Blue's Policies and Guidelines are intended to be used in accordance with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice.

Clinical UM Guideline

Vestibular Function Testing

sacculles, also in the inner ears, provide us with sensation of linear acceleration. Central components of the vestibular system include the cochlear nerve, brainstem, cerebellum, and several cerebral areas.

A common symptom of vestibular system dysfunction is vertigo – a sensation of spinning often associated with dizziness, nausea, and vomiting. Many people have difficulty describing the symptoms of vertigo, and the lack of a reported spinning sensation does not exclude vertigo as a possible cause.

The cause of vertigo can usually be determined by history and physical examination. The medical history can often distinguish vertigo from syncope, pre-syncope, orthostasis, or simple disequilibrium which does not have a spinning component. Important historical information includes the time course, provoking and palliative factors, and associated symptoms. The physical examination should include standard evaluations of the head and neck, office hearing and balance tests, and bedside tests.

Benign paroxysmal positional vertigo (BPPV) is common and causes about 50% of peripheral vertigo. A cross-sectional, nationally representative neurotological survey of the general adult population in Germany estimated a lifetime BPPV prevalence of 2.4% (von Brevern, 2007). Incidence rates increase with age. Vertigo in BPPV is caused by movement of small calcium carbonate crystals (otoconia) in the semicircular canals. Although often idiopathic, BPPV can be a sequella of trauma, Meniere disease, or infectious or inflammatory conditions affecting the inner ear. BPPV can be diagnosed and treated with maneuvers that reposition the inner ear particles such as the Dix-Hallpike maneuver or supine head roll maneuver (see definitions).

Vestibular function tests evaluate the vestibular part of the brainstem and inner ear. If there are problems with the inner ear or other parts of the balance system, symptoms can include dizziness, vertigo, and imbalance. Vestibular tests are tests of function which are designed to identify causes of balance problems. The cause of vertigo can be peripheral (caused by pathology in the inner ear) or central (caused by pathology in the brainstem or cerebellum).

ENG is a test which looks at eye movements to determine how well nerves in the brain are working. Electrodes are placed near the eyes then cold and warm water or air is sprayed into each ear canal. The electrodes record the eye movements that occur when the nerves are stimulated by the water or air. Similar to ENG, VNG measures a type of eye movement using video cameras instead of electrodes. These tests record and quantify spontaneous and induced nystagmus.

A battery of tests along with ENG and VNG can differentiate central and peripheral etiologies. Another test, the caloric stimulation test, is done by injecting cold or warm water or air into the ear canal and tracking eye movements to look for damage to the acoustic nerve. A similar nystagmus-based assessment method is

Federal and State law, as well as contract language, and Medical Policy take precedence over Clinical UM Guidelines. We reserve the right to review and update Clinical UM Guidelines periodically. Clinical guidelines approved by the Medical Policy & Technology Assessment Committee are available for general adoption by plans or lines of business for consistent review of the medical necessity of services related to the clinical guideline when the plan performs utilization review for the subject. Due to variances in utilization patterns, each plan may choose whether to implement a particular Clinical UM Guideline. To determine if review is required for this Clinical UM Guideline, please contact the customer service number on the member's card.

Alternatively, commercial or FEP plans or lines of business which determine there is not a need to adopt the guideline to review services generally across all providers delivering services to Plan's or line of business's members may instead use the clinical guideline for provider education and/or to review the medical necessity of services for any provider who has been notified that his/her/its claims will be reviewed for medical necessity due to billing practices or claims that are not consistent with other providers, in terms of frequency or in some other manner.

No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, or otherwise, without permission from the health plan.

This Clinical UM Guideline is intended to provide assistance in interpreting Healthy Blue's standard Medicaid benefit plan. When evaluating insurance coverage for the provision of medical care, federal, state and/or contractual requirements must be referenced, since these may limit or differ from the standard benefit plan. In the event of a conflict, the federal, state and/or contractual requirements for the applicable benefit plan coverage will govern. Healthy Blue reserves the right to modify its Policies and Guidelines as necessary and in accordance with legal and contractual requirements. This Clinical UM Guideline is provided for informational purposes. It does not constitute medical advice. Healthy Blue may also use tools and criteria developed by third parties, to assist us in administering health benefits. Healthy Blue's Policies and Guidelines are intended to be used in accordance with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice.

Clinical UM Guideline

Vestibular Function Testing

rotational chair testing. This involves tracking eye movements in response to movements of a rotating chair and moving lights projected on a wall.

A 2023 study by Saha and colleagues reported on the applicability of ENG to assist in the diagnosis of vertigo (either central or peripheral etiology). Included were 84 participants with an initial complaint of vertigo. Vertiginous symptoms varied among participants - 75% complained of instability, 50% complained of rotatory objective vertigo, 29.76% complained of a tendency to fall, 22.62% complained of blackout, and 2.38% complained of a sinking sensation. Two or more symptoms were reported by 63% of the participants. Evaluation without ENG allowed categorization of vertigo for 68 participants (80.95%) with 46 (54.76%) diagnosed with peripheral vertigo and 22 (26.19%) diagnosed with central vertigo. Vertigo for 16 participants (19.05%) could not be categorized without an ENG. A subsequent ENG distinguished between central and peripheral vertigo for all participants, finding that that 48 (57.14%) had peripheral, 27 (32.14%) had central, and 9 (10.71%) had mixed lesions.

Definitions

Dizziness: The sensation of weakness or unsteadiness often described as feeling “woozy”, unsteady, or faint.

Disequilibrium: A sensation of imbalance, loss of equilibrium, or unsteadiness.

Dix-Hallpike maneuver (also known as the Baranay test): a test of vestibular function in which a seated individual is rapidly placed in a supine position with the head turned to one side and the neck is extended 30 degrees below the horizontal plane. The test is repeated with the head turned to each side. In a positive test, the individual will be seen to have nystagmus in the supine position or on returning to the seated position.

Nystagmus: Involuntary rhythmic, repetitive eye movements. Nystagmus has a fast component in which the eyes quickly deviate to one side. This is followed by a slow component in which the eyes return to the neutral position. Nystagmus can also involve rotational movement of the eyes. The direction of these nystagmus components has diagnostic significance.

Orthostasis: A fall in blood pressure due to changes in position.

Supine roll test: A test of vestibular function in which the individual is placed supine with the neck flexed to 30 degrees in order to bring the lateral semicircular canals into the horizontal position. The examiner turns the head quickly 90 degrees to one side and observes for nystagmus.

~~Federal and State law, as well as contract language, and Medical Policy take precedence over Clinical UM Guidelines. We reserve the right to review and update Clinical UM Guidelines periodically. Clinical guidelines approved by the Medical Policy & Technology Assessment Committee are available for general adoption by plans or lines of business for consistent review of the medical necessity of services related to the clinical guideline when the plan performs utilization review for the subject. Due to variances in utilization patterns, each plan may choose whether to implement a particular Clinical UM Guideline. To determine if review is required for this Clinical UM Guideline, please contact the customer service number on the member's card.~~

~~Alternatively, commercial or FEP plans or lines of business which determine there is not a need to adopt the guideline to review services generally across all providers delivering services to Plan's or line of business's members may instead use the clinical guideline for provider education and/or to review the medical necessity of services for any provider who has been notified that his/her/its claims will be reviewed for medical necessity due to billing practices or claims that are not consistent with other providers, in terms of frequency or in some other manner.~~

~~No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, or otherwise, without permission from the health plan.~~

~~This Clinical UM Guideline is intended to provide assistance in interpreting Healthy Blue's standard Medicaid benefit plan. When evaluating insurance coverage for the provision of medical care, federal, state and/or contractual requirements must be referenced, since these may limit or differ from the standard benefit plan. In the event of a conflict, the federal, state and/or contractual requirements for the applicable benefit plan coverage will govern. Healthy Blue reserves the right to modify its Policies and Guidelines as necessary and in accordance with legal and contractual requirements. This Clinical UM Guideline is provided for informational purposes. It does not constitute medical advice. Healthy Blue may also use tools and criteria developed by third parties, to assist us in administering health benefits. Healthy Blue's Policies and Guidelines are intended to be used in accordance with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice.~~

Clinical UM Guideline

Vestibular Function Testing

Vertigo: A sensation of rotation or spinning either of the self or the surrounding environment. This may be accompanied by nausea or vomiting.

References

Peer Reviewed Publications:

1. **Moideen A, Konkimalla A, Tyagi AK, et al. Cross-sectional analysis of videonystagmography (VNG) findings in balance disorders. Cureus. 2023; 15(2):e34795.**
2. **Saha S, Haldar A, Mondal H. Evaluation of types of vertigo with electronystagmography: an experience from a tertiary care hospital in West Bengal, India. Cureus. 2023; 15(2):e35496.**
3. **von Brevern M, Radtke A, Lezius F, et al. Epidemiology of benign paroxysmal positional vertigo: a population based study. J Neurol Neurosurg Psychiatry. 2007; 78(7):710-715.**

Index

Vestibular function tests

History

<u>Status</u>	<u>Date</u>	<u>Action</u>
<u>New</u>	<u>11/09/2023</u>	<u>Medical Policy & Technology Assessment Committee review. Initial document development.</u>

Federal and State law, as well as contract language, and Medical Policy take precedence over Clinical UM Guidelines. We reserve the right to review and update Clinical UM Guidelines periodically. Clinical guidelines approved by the Medical Policy & Technology Assessment Committee are available for general adoption by plans or lines of business for consistent review of the medical necessity of services related to the clinical guideline when the plan performs utilization review for the subject. Due to variances in utilization patterns, each plan may choose whether to implement a particular Clinical UM Guideline. To determine if review is required for this Clinical UM Guideline, please contact the customer service number on the member's card.

Alternatively, commercial or FEP plans or lines of business which determine there is not a need to adopt the guideline to review services generally across all providers delivering services to Plan's or line of business's members may instead use the clinical guideline for provider education and/or to review the medical necessity of services for any provider who has been notified that his/her/its claims will be reviewed for medical necessity due to billing practices or claims that are not consistent with other providers, in terms of frequency or in some other manner.

No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, or otherwise, without permission from the health plan.

This Clinical UM Guideline is intended to provide assistance in interpreting Healthy Blue's standard Medicaid benefit plan. When evaluating insurance coverage for the provision of medical care, federal, state and/or contractual requirements must be referenced, since these may limit or differ from the standard benefit plan. In the event of a conflict, the federal, state and/or contractual requirements for the applicable benefit plan coverage will govern. Healthy Blue reserves the right to modify its Policies and Guidelines as necessary and in accordance with legal and contractual requirements. This Clinical UM Guideline is provided for informational purposes. It does not constitute medical advice. Healthy Blue may also use tools and criteria developed by third parties, to assist us in administering health benefits. Healthy Blue's Policies and Guidelines are intended to be used in accordance with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice.