

Clinical Policy: Sensorimotor Examination

Reference Number: CP.VP.55

Last Review Date: 08/2025

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Description

A basic sensorimotor exam evaluates ocular range of motion to determine if the eyes move together in the nine cardinal positions of gaze. This policy describes the medical necessity requirements for sensorimotor examination.

Policy/Criteria

- I. It is the policy of health plans affiliated with Centene Corporation® (Centene) and Envolve Vision, Inc.® (Envolve) that sensorimotor examination is **medically necessary** for any of the following indications:
 - A. Complaints of double vision,
 - B. Awareness of overlapping letters or words when reading,
 - C. Reported asthenopia or headache when reading,
 - D. Strabismus (congenital or acquired),
 - E. Orbital floor fractures,
 - F. Orbital myositis, or
 - G. External ocular muscle paresis or paralysis.

Background

A sensorimotor examination consists of measuring binocular alignment in more than one field of gaze and sensory testing of binocular function when appropriate, which includes testing of binocular sensory status (stereoacuity or Worth 4-Dot); assessing diplopia-free visual field; measuring ocular torsion (double Maddox rods); and assessing whether horizontal, vertical, and torsional components require correction in order to restore binocular alignment (using a prism or a synoptophore). A sensorimotor examination detects, assesses, monitors, and/or manages strabismus and oculomotor conditions including, but not limited to esotropia, exotropia, and hypertropia. These conditions can have important visual, developmental, and/or systemic implications. The sensorimotor examination is necessary to diagnose and/or treat these conditions, in follow-up to detect improvement, deterioration, or stability, and also to determine the effect of optical correction on the strabismic condition. Information from the sensorimotor examination is necessary to plan medical, optical and surgical treatments.

The examiner utilizes a series of vertical and horizontal prism bars or individual handheld prisms to measure ocular deviation in a sensorimotor examination. Ocular deviations, such as strabismus, are seen when the eyes position themselves to each other on axes different from what is needed. Ocular deviations can occur in the horizontal or vertical plane. The eyes may move in toward each other (convergent) or away from each other (divergent). One eye (monocular) or both eyes (binocular) may be affected. The deviation may be observed to be the same no matter what direction the eyes are looking (concomitant) or to vary depending on where the eyes are looking (nonconcomitant). These deviations can be caused by ocular muscle anomalies, trauma or disease, or neuromuscular damage. The patient is asked to focus on a distant or near object in

varying locations. An occluder may be alternately used to cover one eye while testing the other. Multiple measurements are taken and interpreted and a report is prepared.

An order for the test should be noted in the chart. Test results for motor function are typically documented in a "tic-tac-toe" format to represent different fields of gaze. Results of the sensory function test are also noted. Examiners note how many of the stereo rings on the Titmus Fly test are correctly observed by the patient and whether or not the patient appreciated the three-dimensional appearance of the fly's wings. A positive stereo test on a nonverbal patient might be represented by the patient's attempt to touch or pick up the fly's wings. Results of a Worth 4 dot often note which lights were seen.

Coding Implications

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CPT® Codes	Description
92060	Sensorimotor examination with multiple measurements of ocular deviation (e.g., restrictive or parietic muscle with diplopia) with interpretation and report (separate procedure)

ICD-10-CM Diagnosis Codes that Support Coverage Criteria

+ Indicates a code requiring an additional character

ICD-10-CM Code	Description
G52.7	Disorders of multiple cranial nerves
G53.	Cranial nerve disorders in diseases classified elsewhere
H05.121	Orbital myositis, right orbit
H05.122	Orbital myositis, left orbit
H05.123	Orbital myositis, bilateral
H49.01	Third [oculomotor] nerve palsy, right eye
H49.02	Third [oculomotor] nerve palsy, left eye
H49.03	Third [oculomotor] nerve palsy, bilateral
H49.11	Fourth [trochlear] nerve palsy, right eye
H49.12	Fourth [trochlear] nerve palsy, left eye
H49.13	Fourth [trochlear] nerve palsy, bilateral
H49.21	Sixth [abducent] nerve palsy, right eye
H49.22	Sixth [abducent] nerve palsy, left eye
H49.23	Sixth [abducent] nerve palsy, bilateral
H49.31	Total (external) ophthalmoplegia, right eye
H49.32	Total (external) ophthalmoplegia, left eye

ICD-10-CM Code	Description
H49.33	Total (external) ophthalmoplegia, bilateral
H49.41	Progressive external ophthalmoplegia, right eye
H49.42	Progressive external ophthalmoplegia, left eye
H49.43	Progressive external ophthalmoplegia, bilateral
H49.881	Other paralytic strabismus, right eye
H49.882	Other paralytic strabismus, left eye
H49.883	Other paralytic strabismus, bilateral
H50.011	Monocular esotropia, right eye
H50.012	Monocular esotropia, left eye
H50.021	Monocular esotropia with A pattern, right eye
H50.022	Monocular esotropia with A pattern, left eye
H50.031	Monocular esotropia with V pattern, right eye
H50.032	Monocular esotropia with V pattern, left eye
H50.041	Monocular esotropia with other noncomitancies, right eye
H50.042	Monocular esotropia with other noncomitancies, left eye
H50.05	Alternating esotropia
H50.06	Alternating esotropia with A pattern
H50.07	Alternating esotropia with V pattern
H50.08	Alternating esotropia with other noncomitancies
H50.111	Monocular exotropia, right eye
H50.112	Monocular exotropia, left eye
H50.121	Monocular exotropia with A pattern, right eye
H50.122	Monocular exotropia with A pattern, left eye
H50.131	Monocular exotropia with V pattern, right eye
H50.132	Monocular exotropia with V pattern, left eye
H50.141	Monocular exotropia with other noncomitancies, right eye
H50.142	Monocular exotropia with other noncomitancies, left eye
H50.15	Alternating exotropia
H50.16	Alternating exotropia with A pattern
H50.17	Alternating exotropia with V pattern
H50.18	Alternating exotropia with other noncomitancies
H50.21	Vertical strabismus, right eye
H50.21	Vertical strabismus, right eye
H50.22	Vertical strabismus, left eye
H50.22	Vertical strabismus, left eye
H50.30	Unspecified intermittent heterotropia
H50.311	Intermittent monocular esotropia, right eye
H50.312	Intermittent monocular esotropia, left eye
H50.32	Intermittent alternating esotropia
H50.331	Intermittent monocular exotropia, right eye
H50.332	Intermittent monocular exotropia, left eye
H50.34	Intermittent alternating exotropia
H50.411	Cyclotropia, right eye

ICD-10-CM Code	Description
H50.412	Cyclotropia, left eye
H50.42	Monofixation syndrome
H50.43	Accommodative component in esotropia
H50.51	Esophoria
H50.52	Exophoria
H50.53	Vertical heterophoria
H50.54	Cyclophoria
H50.55	Alternating heterophoria
H50.611	Brown's sheath syndrome, right eye
H50.612	Brown's sheath syndrome, left eye
H50.621	Inferior oblique muscle entrapment, right eye
H50.622	Inferior oblique muscle entrapment, left eye
H50.631	Inferior rectus muscle entrapment, right eye
H50.632	Inferior rectus muscle entrapment, left eye
H50.641	Lateral rectus muscle entrapment, right eye
H50.642	Lateral rectus muscle entrapment, left eye
H50.651	Medial rectus muscle entrapment, right eye
H50.652	Medial rectus muscle entrapment, left eye
H50.661	Superior oblique muscle entrapment, right eye
H50.662	Superior oblique muscle entrapment, left eye
H50.671	Superior rectus muscle entrapment, right eye
H50.672	Superior rectus muscle entrapment, left eye
H50.681	Extraocular muscle entrapment, unspecified, right eye
H50.682	Extraocular muscle entrapment, unspecified, left eye
H50.811	Duane's syndrome, right eye
H50.812	Duane's syndrome, left eye
H51.0	Palsy (spasm) of conjugate gaze
H51.0	Palsy (spasm) of conjugate gaze
H51.11	Convergence insufficiency
H51.12	Convergence excess
H51.21	Internuclear ophthalmoplegia, right eye
H51.22	Internuclear ophthalmoplegia, left eye
H51.23	Internuclear ophthalmoplegia, bilateral
H52.511	Internal ophthalmoplegia (complete) (total), right eye
H52.512	Internal ophthalmoplegia (complete) (total), left eye
H52.513	Internal ophthalmoplegia (complete) (total), bilateral
H52.521	Paresis of accommodation, right eye
H52.522	Paresis of accommodation, left eye
H52.523	Paresis of accommodation, bilateral
H52.531	Spasm of accommodation, right eye
H52.532	Spasm of accommodation, left eye
H52.533	Spasm of accommodation, bilateral

ICD-10-CM Code	Description
H53.011	Deprivation amblyopia, right eye
H53.012	Deprivation amblyopia, left eye
H53.013	Deprivation amblyopia, bilateral
H53.021	Refractive amblyopia, right eye
H53.022	Refractive amblyopia, left eye
H53.023	Refractive amblyopia, bilateral
H53.031	Strabismic amblyopia, right eye
H53.032	Strabismic amblyopia, left eye
H53.033	Strabismic amblyopia, bilateral
H53.2	Diplopia
H53.31	Abnormal retinal correspondence
H53.32	Fusion with defective stereopsis
H53.33	Simultaneous visual perception without fusion
H53.34	Suppression of binocular vision
H55.81	Deficient saccadic eye movements
H55.82	Deficient smooth pursuit eye movements
S02.31XA	Fracture of orbital floor, right side, initial encounter for closed fracture
S02.31XB	Fracture of orbital floor, right side, initial encounter for open fracture
S02.32XA	Fracture of orbital floor, left side, initial encounter for closed fracture
S02.32XB	Fracture of orbital floor, left side, initial encounter for open fracture
S02.81XA	Fractures of other specified skull and facial bones, right side, initial encounter for closed fracture
S02.81XB	Fractures of other specified skull and facial bones, right side, initial encounter for open fracture
S02.82XA	Fracture of other specified skull and facial bones, left side, initial encounter for closed fracture
S02.82XB	Fracture of other specified skull and facial bones, left side, initial encounter for open fracture

Reviews, Revisions, and Approvals	Date	Approval Date
Annual Review	12/2019	12/2019
Converted to new template	07/2020	10/2020
Annual Review; Updated ICD-10 diagnosis codes	12/2020	12/2020
Annual Review	12/2021	01/2022
Annual Review	11/2022	12/2022
Updated medically indicated diagnoses to include new ICD-10 codes for extraocular muscle entrapment.	11/2023	12/2023
Annual Review	11/2024	12/2024
Annual Review	08/2025	10/2025

References

1. American Association for Pediatric Ophthalmology and Strabismus, Policy Statement: Sensorimotor Examination, Approved 10/2018
2. Clarifying Quantitative Sensorimotor Exams, Suzanne L. Corcoran, Ophthalmology Management, 9/1/2008
3. H. Dunbar Hoskins Jr., MD Center for Quality Eye Care. Pediatric Eye Evaluations Preferred Practice Pattern. 2017 American Academy of Ophthalmology®. San Francisco, CA. [https://www.aaojournal.org/article/S0161-6420\(17\)32958-5/pdf](https://www.aaojournal.org/article/S0161-6420(17)32958-5/pdf)

Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. “Health Plan” means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan’s affiliates, as applicable.

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This clinical policy is effective as of the date determined by the Health Plan. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. The Health Plan retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

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Note: For Medicare members, to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs, LCDs, and Medicare Coverage Articles should be reviewed prior to applying the criteria set forth in this clinical policy. Refer to the CMS website at <https://www.cms.gov> for additional information.

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