

Medical Policy:

Ocular Photoscreening

| POLICY NUMBER | LAST REVIEW | |
|----------------|----------------|--|
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Applicable to: EmblemHealth/ConnectiCare Commercial and EmblemHealth Medicaid Plans

Guideline

Instrument-based ocular screening using photoscreening is covered as medically necessary for vision screening for the following:

- As a preventive screening instrument for children 1–3 years of age (ends on 4th birthday)
- Individuals 4 years of age and older who are developmentally delayed and are unable or unwilling to cooperate with routine visual acuity screening

Limitations/Exclusions

Instrument-based ocular screening using photoscreening is unproven and not medically necessary for all other patient populations including children younger than 1 year of age. More age-appropriate screening methods are available for these populations.

Retinal birefringence scanning for the detection of eye misalignment or strabismus (CPT 0469T) is not considered medically necessary, as its effectiveness has not been established.

Clinical Evidence

Ocular photoscreening has been investigated as an alternative screening method to detect risk factors for amblyopia, which include strabismus, high refractive errors, anisometropia, and media opacities. Many children permanently lose vision each year as a result of these treatable ocular disease processes. Early diagnosis and treatment of these conditions has been shown to yield better visual outcomes.

The U.S. Preventive Services Task Force (USPSTF, 2017) recommended vision screening for amblyopia and its risk factors in children aged 3 to 5 years. Evidence was insufficient to assess the benefits and harms of vision screening in children younger than 3 years. Various screening tests are used in primary care to identify visual impairment among children, including visual acuity tests, stereoacuity tests, the cover-uncover test, and the Hirschberg light reflex test (for ocular alignment/strabismus). Photoscreeners (instruments that detect amblyogenic risk factors and refractive errors) may also be used.

Infants and young preverbal children are difficult to screen because they are unable to provide subjective responses to visual acuity testing and do not easily cooperate with testing of ocular alignment or stereoacuity (AAP, 2002). For similar reasons, it also is difficult to screen certain older children, such as those who are nonverbal or have developmental delays.

Ocular photoscreening has been used to screen for amblyogenic factors, such as strabismus, media opacities, and significant refractive errors, in children (AAP, 2002). An advantage of ocular photoscreening over standard methods of testing visual acuity, ocular alignment and stereoacuity is that photoscreening requires little cooperation from the child, other than having to fixate on the appropriate target long enough for photoscreening. Thus, photoscreening has the potential to improve vision screening rates in preverbal children and those with developmental delays who are the most difficult to screen. Many of the children that are most difficult to screen using conventional methods are also at highest risk of amblyopia (e.g., premature infants, children with developmental delays).

In a retrospective study, Longmuir et al. (2013) reported their experience with vision screening in children and compared the results of photoscreening in children younger than 3 years with those of children of preschool age and older. During the 11 years of the study, 210,695 photoscreens on children were performed at 13,750 sites. In the 3 years old. According to the authors, these results confirm that early screening, before amblyopia is more pronounced, can reliably detect amblyogenic risk factors in children younger than 3 years of age, and they recommend initiation of photoscreening in children aged 1 year and older.

In a cross-sectional study, Longmuir et al. (2010) reported on a cohort of preschool children screened by a photoscreening program (using MTI PhotoScreener) over a 9-year period from a single, statewide vision screening effort. Children who failed the photoscreening were referred to local eye care professionals who performed a comprehensive eye evaluation. Over the 9 years of the continuously operating program, 147,809 children underwent photoscreens to detect amblyopic risk factors at 9746 sites. Because of abnormal photoscreen results, 6247 children (4.2%) were referred. The overall positive predictive value (PPV) of the MTI PhotoScreener was 94.2%.

Professional Societies

American Academy of Ophthalmology (AAO)

The American Academy of Ophthalmology (AAO) Preferred Practice Patterns for Pediatric Eye Evaluations (2017) state that vision screening should be performed at an early age and at regular intervals throughout childhood. The elements of vision screening vary depending on the age and level of cooperation of the child. Subjective visual acuity testing is preferred to instrument-based screening in children who are able to participate reliably. Instrument-based screening is useful for some young children and those with developmental delays. Instrument-based screening techniques, such as photoscreening and autorefraction, are useful for assessing amblyopia and reduced-vision risk factors for children ages 1 to 5 years, as this is a critical time for visual development. Instrument-

based screening can occur for children at age 6 years and older when children cannot participate in optotype-based screening.

American Academy of Ophthalmology/American Association for Pediatric Ophthalmology and Strabismus / American Association of Certified Orthoptists

The American Academy of Ophthalmology, the American Association for Pediatric Ophthalmology and Strabismus, and the American Association of Certified Orthoptists coauthored a policy statement regarding the use of instrument-based screening devices. These devices are available commercially and have had extensive validation, both in field studies as well as in the pediatrician's offices. Screening instruments detect amblyopia, high refractive error, and strabismus, which are the most common conditions producing visual impairment in children. If available, they can be used at any age but have better success after 18 months of age. Instrument-based screening can be repeated at each annual preventive medicine encounter through 5 years of age or until visual acuity can be assessed reliably using optotypes. Using these techniques in children younger than 6 years can enhance detection of conditions that may lead to amblyopia and/or strabismus compared with traditional methods of assessment (Donahue and Baker, 2016).

Procedure Codes

| 99174 | Instrument-based ocular screening (e.g., photoscreening, automated-refraction), bilateral; with remote analysis and report |
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| 99177 | Instrument-based ocular screening (e.g., photoscreening, automated-refraction), bilateral; with on-site analysis |

ICD-10 Diagnoses

| E78.71 | Barth syndrome |
|--------|--|
| E78.72 | Smith-Lemli-Opitz syndrome |
| F07.9 | Unspecified personality and behavioral disorder due to known physiological condition |
| F09 | Unspecified mental disorder due to known physiological condition |
| F45.8 | Other somatoform disorders |
| F70 | Mild intellectual disabilities |
| F71 | Moderate intellectual disabilities |
| F72 | Severe intellectual disabilities |
| F73 | Profound intellectual disabilities |
| F78 | Other intellectual disabilities |
| F79 | Unspecified intellectual disabilities |
| F80.4 | Speech and language development delay due to hearing loss |
| F82 | Specific developmental disorder of motor function |
| F84.0 | Autistic disorder |
| F84.3 | Other childhood disintegrative disorder |
| F84.5 | Asperger's syndrome |

| F84.8 | Other pervasive developmental disorders |
|---------|--|
| F84.9 | Pervasive developmental disorder, unspecified |
| F90.0 | Attention-deficit hyperactivity disorder, predominantly inattentive type |
| F90.1 | Attention-deficit hyperactivity disorder, predominantly hyperactive type |
| F90.2 | Attention-deficit hyperactivity disorder, combined type |
| F90.8 | Attention-deficit hyperactivity disorder, other type |
| F90.9 | Attention-deficit hyperactivity disorder, unspecified type |
| G12.0 | Infantile spinal muscular atrophy, type I [Werdnig-Hoffman] |
| G20 | Parkinson's disease |
| G21.4 | Vascular parkinsonism |
| G23.0 | Hallervorden-Spatz disease |
| G23.1 | Progressive supranuclear ophthal moplegia [Steele-Richardson-Olszewski] |
| G23.2 | Striatonigral degeneration |
| G23.8 | Other specified degenerative diseases of basal ganglia |
| G23.9 | Degenerative disease of basal ganglia, unspecified |
| G37.0 | Diffuse sclerosis of central nervous system |
| G37.5 | Concentric sclerosis [Balo] of central nervous system |
| G40.001 | Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, not intractable, with status epilepticus |
| G40.009 | Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, not intractable, without status epilepticus |
| G40.011 | Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, intractable, with status epilepticus |
| G40.019 | Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, intractable, without status epilepticus |
| G40.101 | Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, with status epilepticus |
| G40.109 | Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, without status epilepticus |
| G40.111 | Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, with status epilepticus |
| G40.119 | Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, without status epilepticus |
| G40.201 | Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, not intractable, with status epilepticus |
| G40.209 | Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, not intractable, without status epilepticus |
| G40.211 | Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, with status epilepticus |
| G40.219 | Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, |
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| | intractable, without status epilepticus |
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| G40.301 | Generalized idiopathic epilepsy and epileptic syndromes, not intractable, with status epilepticus |
| G40.309 | Generalized idiopathic epilepsy and epileptic syndromes, not intractable, without status epilepticus |
| G40.311 | Generalized idiopathic epilepsy and epileptic syndromes, intractable, with status epilepticus |
| G40.319 | Generalized idiopathic epilepsy and epileptic syndromes, intractable, without status epilepticus |
| G40.401 | Other generalized epilepsy and epileptic syndromes, not intractable, with status epilepticus |
| G40.409 | Other generalized epilepsy and epileptic syndromes, not intractable, without status epilepticus |
| G40.411 | Other generalized epilepsy and epileptic syndromes, intractable, with status epilepticus |
| G40.419 | Other generalized epilepsy and epileptic syndromes, intractable, without status epilepticus |
| G40.501 | Epileptic seizures related to external causes, not intractable, with status epilepticus |
| G40.509 | Epileptic seizures related to external causes, not intractable, without status epilepticus |
| G40.801 | Other epilepsy, not intractable, with status epilepticus |
| G40.802 | Other epilepsy, not intractable, without status epilepticus |
| G40.803 | Other epilepsy, intractable, with status epilepticus |
| G40.804 | Other epilepsy, intractable, without status epilepticus |
| G40.811 | Lennox-Gastaut syndrome, not intractable, with status epilepticus |
| G40.812 | Lennox-Gastaut syndrome, not intractable, without status epilepticus |
| G40.813 | Lennox-Gastaut syndrome, intractable, with status epilepticus |
| G40.814 | Lennox-Gastaut syndrome, intractable, without status epilepticus |
| G40.821 | Epileptic spasms, not intractable, with status epilepticus |
| G40.822 | Epileptic spasms, not intractable, without status epilepticus |
| G40.823 | Epileptic spasms, intractable, with status epilepticus |
| G40.824 | Epileptic spasms, intractable, without status epilepticus |
| G40.833 | Dravet syndrome, intractable with status epilepticus |
| G40.834 | Dravet syndrome, intractable, without status epilepticus |
| G40.89 | Other seizures |
| G40.901 | Epilepsy, unspecified, not intractable, with status epilepticus |
| G40.909 | Epilepsy, unspecified, not intractable, without status epilepticus |
| G40.911 | Epilepsy, unspecified, intractable, with status epilepticus |
| G40.919 | Epilepsy, unspecified, intractable, without status epilepticus |
| G40.A01 | Absence epileptic syndrome, not intractable, with status epilepticus |
| G40.A09 | Absence epileptic syndrome, not intractable, without status epilepticus |
| G40.A11 | Absence epileptic syndrome, intractable, with status epilepticus |
| G40.A19 | Absence epileptic syndrome, intractable, without status epilepticus |
| G46.3 | Brain stem stroke syndrome |
| G46.4 | Cerebellarstrokesyndrome |
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| G46.5 | Pure motor lacunar syndrome |
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| G46.6 | Pure sensory lacunar syndrome |
| G46.7 | Other lacunar syndromes |
| G46.8 | Other vascular syndromes of brain in cerebrovascular diseases |
| G52.7 | Disorders of multiple cranial nerves |
| G60.8 | Other hereditary and idiopathic neuropathies |
| G71.20 | Congenital myopathy, unspecified |
| G71.21 | Nemaline myopathy |
| G71.220 | X-linked myotubular myopathy |
| G71.228 | Other centronuclear myopathy |
| G71.29 | Other congenital myopathy |
| G72.3 | Periodic paralysis |
| G80.0 | Spastic quadriplegic cerebral palsy |
| G80.1 | Spastic diplegic cerebral palsy |
| G80.2 | Spastic hemiplegic cerebral palsy |
| G80.3 | Athetoid cerebral palsy |
| G80.4 | Ataxic cerebral palsy |
| G80.8 | Other cerebral palsy |
| G80.9 | Cerebral palsy, unspecified |
| G83.81 | Brown-Sequard syndrome |
| G83.82 | Anterior cord syndrome |
| G83.83 | Posterior cord syndrome |
| G83.84 | Todd's paralysis (postepileptic) |
| G83.89 | Other specified paralytic syndromes |
| G83.9 | Paralytic syndrome, unspecified |
| G90.09 | Other idiopathic peripheral autonomic neuropathy |
| G90.3 | Multi-system degeneration of the autonomic nervous system |
| G93.1 | Anoxic brain damage, not elsewhere classified |
| G97.31 | Intraoperative hemorrhage and hematoma of a nervous system organ or structure complicating a nervous system procedure |
| G97.32 | Intraoperative hemorrhage and hematoma of a nervous system organ or structure complicating other procedure |
| H93.25 | Central auditory processing disorder |
| 167.2 | Cerebral atherosclerosis |
| 167.81 | Acute cerebrovascular insufficiency |
| 167.82 | Cerebral ischemia |
| 167.89 | Other cerebrovascular disease |

| 100.0 | Construction to the action of the |
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| 168.0 | Cerebral amyloid angiopathy |
| 168.8 | Other cerebrovascular disorders in diseases classified elsewhere |
| 169.00 | Unspecified sequelae of nontraumatic subarachnoid hemorrhage |
| 169.010 | Attention and concentration deficit following nontraumatic subarachnoid hemorrhage |
| 169.011 | Memory deficit following nontraumatic subarachnoid hemorrhage |
| 169.012 | Visuospatial deficit and spatial neglect following nontraumatic subarachnoid hemorrhage |
| 169.013 | Psychomotor deficit following nontraumatic subarachnoid hemorrhage |
| 169.014 | Frontal lobe and executive function deficit following nontraumatic subarachnoid hemorrhage |
| 169.015 | Cognitive social or emotional deficit following nontraumatic subarachnoid hemorrhage |
| 169.018 | Other symptoms and signs involving cognitive functions following nontraumatic subarachnoid hemorrhage |
| 169.019 | Unspecified symptoms and signs involving cognitive functions following nontraumatic subarachnoid hemorrhage |
| 169.020 | Aphasia following nontraumatic subarachnoid hemorrhage |
| 169.021 | Dysphasia following nontraumatic subarachnoid hemorrhage |
| 169.023 | Fluency disorder following nontraumatic subarachnoid hemorrhage |
| 169.031 | Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage affecting right dominant side |
| 169.032 | Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage affecting left dominant side |
| 169.033 | Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage affecting right non-dominant side |
| 169.034 | Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage affecting left non-dominant side |
| 169.039 | Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage affecting unspecified side |
| 169.041 | Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage affecting right dominant side |
| 169.042 | Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage affecting left dominant side |
| 169.043 | Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage affecting right non-dominant side |
| 169.044 | Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage affecting left non-dominant side |
| 169.049 | Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage affecting unspecified side |
| 169.051 | Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage affecting right dominant side |
| 169.052 | Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage affecting left dominant side |
| 169.053 | Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage affecting right non-dominant side |
| 169.054 | Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage affecting left non-dominant side |
| 169.059 | Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage affecting unspecified side |
| 169.061 | Other paralytic syndrome following nontraumatic subarachnoid hemorrhage affecting right dominant side |
| 169.062 | Other paralytic syndrome following nontraumatic subarachnoid hemorrhage affecting left dominant side |
| 169.063 | Other paralytic syndrome following nontraumatic subarachnoid hemorrhage affecting right non-dominant side |
| 169.064 | Other paralytic syndrome following nontraumatic subarachnoid hemorrhage affecting left non-dominant side |
| 169.065 | Other paralytic syndrome following nontraumatic subarachnoid hemorrhage, bilateral |
| 169.069 | Other paralytic syndrome following nontraumatic subarachnoid hemorrhage affecting unspecified side |
| 169.090 | Apraxia following nontraumatic subarachnoid hemorrhage |
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| 169.091 | Dysphagia following nontraumatic subarachnoid hemorrhage |
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| 169.092 | Facial weakness following nontraumatic subarachnoid hemorrhage |
| 169.093 | Ataxia following nontraumatic subarachnoid hemorrhage |
| 169.098 | Other sequelae following nontraumatic subarachnoid hemorrhage |
| I69.10 | Unspecified sequelae of nontraumatic intracerebral hemorrhage |
| 169.110 | Attention and concentration deficit following nontraumatic intracere bral hemorrhage |
| 169.111 | Memory deficit following nontraumatic intracerebral hemorrhage |
| l69.112 | Visuospatial deficit and spatial neglect following nontraumatic intracerebral hemorrhage |
| 169.113 | Psychomotor deficit following nontraumatic intracerebral hemorrhage |
| 169.114 | Frontal lobe and executive function deficit following nontraumatic intracere bral hemorrhage |
| l69.115 | Cognitive social or emotional deficit following nontraumatic intracerebral hemorrhage |
| 169.118 | Other symptoms and signs involving cognitive functions following nontraumatic intracerebral hemorrhage |
| 169.119 | Unspecified symptoms and signs involving cognitive functions following nontraumatic intracerebral hemorrhage |
| I69.120 | Aphasia following nontraumatic intracerebral hemorrhage |
| l69.121 | Dysphasia following nontraumatic intracerebral hemorrhage |
| l69.123 | Fluency disorder following nontraumatic intracerebral he morrhage |
| l69.131 | Monoplegia of upper limb following nontraumatic intracerebral hemorrhage affecting right dominant side |
| 169.132 | Monoplegia of upper limb following nontraumatic intracerebral hemorrhage affecting left dominant side |
| l69.133 | Monoplegia of upper limb following nontraumatic intracerebral hemorrhage affecting right non-dominant side |
| 169.134 | Monoplegia of upper limb following nontraumatic intracerebral hemorrhage affecting left non-dominant side |
| 169.139 | Monoplegia of upper limb following nontraumatic intracerebral hemorrhage affecting unspecified side |
| l69.141 | $Monoplegia\ of\ lower\ limb\ following\ nontraumatic\ intracerebral\ hemorrhage\ affecting\ right\ dominant\ side$ |
| 169.142 | Monoplegia of lower limb following nontrau matic intracerebral hemorrhage affecting left dominant side lower lower |
| 169.143 | Monoplegia of lower limb following nontraumatic intracerebral hemorrhage affecting right non-dominant side |
| 169.144 | Monoplegia of lower limb following nontraumatic intracerebral hemorrhage affecting left non-dominant side |
| 169.149 | Monoplegia of lower limb following nontraumatic intracerebral hemorrhage affecting unspecified side |
| l69.151 | Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage affecting right dominant side |
| 169.152 | Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage affecting left dominant side |
| 169.153 | Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage affecting right non-dominant side |
| 169.154 | Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage affecting left non-dominant side |
| 169.159 | Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage affecting unspecified side |
| 169.161 | Other paralytic syndrome following nontraumatic intracerebral hemorrhage affecting right dominant side |
| 169.162 | Other paralytic syndrome following nontraumatic intracerebral hemorrhage affecting left dominant side |
| 169.163 | Other paralytic syndrome following nontraumatic intracerebral hemorrhage affecting right non-dominant side |
| 169.164 | Other paralytic syndrome following nontraumatic intracerebral hemorrhage affecting left non-dominant side |
| I69.165 | Other paralytic syndrome following nontraumatic intracerebral hemorrhage, bilateral |
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| 169.169 | Other paralytic syndrome following nontraumatic intracerebral hemorrhage affecting unspecified side |
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| 169.190 | Apraxia following nontraumatic intracerebral hemorrhage |
| 169.191 | Dysphagia following nontraumatic intracerebral hemorrhage |
| 169.192 | Facial weakness following nontraumatic intracerebral hemorrhage |
| 169.193 | Ataxia following nontraumatic intracerebral hemorrhage |
| 169.198 | Other sequelae of nontraumatic intracerebral hemorrhage |
| 169.20 | Unspecified sequelae of other nontraumatic intracranial hemorrhage |
| 169.210 | Attention and concentration deficit following other nontraumatic intracranial hemorrhage |
| 169.211 | Memory deficit following other nontraumatic intracranial hemorrhage |
| 169.212 | Visuospatial deficit and spatial neglect following other nontraumatic intracranial hemorrhage |
| 169.213 | Psychomotor deficit following other nontraumatic intracranial hemorrhage |
| 169.214 | Frontal lobe and executive function deficit following other nontraumatic intracranial hemorrhage |
| 169.215 | Cognitive social or emotional deficit following other nontraumatic intracranial hemorrhage |
| 169.218 | Other symptoms and signs involving cognitive functions following other nontraumatic intracranial hemorrhage |
| 169.219 | Unspecified symptoms and signs involving cognitive functions following other nontraumatic intracranial hemorrhage |
| 169.220 | Aphasia following other nontraumatic intracranial hemorrhage |
| 169.221 | Dysphasia following other nontraumatic intracranial hemorrhage |
| 169.223 | Fluency disorder following other nontraumatic intracranial hemorrhage |
| 169.231 | Monoplegia of upper limb following other nontraumatic intracranial hemorrhage affecting right dominant side |
| 169.232 | Monoplegia of upper limb following other nontraumatic intracranial hemorrhage affecting left dominant side |
| 169.233 | Monoplegia of upper limb following other nontraumatic intracranial hemorrhage affecting right non-dominant side |
| 169.234 | Monoplegia of upper limb following other nontraumatic intracranial hemorrhage affecting left non-dominant side |
| 169.239 | Monoplegia of upper limb following other nontraumatic intracranial hemorrhage affecting unspecified side |
| 169.241 | Monoplegia of lower limb following other nontraumatic intracranial hemorrhage affecting right dominant side |
| 169.242 | Monoplegia of lower limb following other nontraumatic intracranial hemorrhage affecting left dominant side |
| 169.243 | Monoplegia of lower limb following other nontraumatic intracranial hemorrhage affecting right non-dominant side |
| 169.244 | Monoplegia of lower limb following other nontraumatic intracranial hemorrhage affecting left non-dominant side |
| 169.249 | Monoplegia of lower limb following other nontraumatic intracranial hemorrhage affecting unspecified side |
| 169.251 | Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage affecting right dominant side |
| 169.252 | Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage affecting left dominant side |
| 169.253 | Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage affecting right non-dominant side |
| 169.254 | Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage affecting left non-dominant side |
| 169.259 | Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage affecting unspecified side |
| 169.261 | Other paralytic syndrome following other nontraumatic intracranial hemorrhage affecting right dominant side |
| 169.262 | Other paralytic syndrome following other nontraumatic intracranial hemorrhage affecting left dominant side |
| 169.263 | Other paralytic syndrome following other nontraumatic intracranial hemorrhage affecting right non-dominant side |
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| 169.264 | Other paralytic syndrome following other nontraumatic intracranial hemorrhage affecting left non-dominant side |
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| 169.265 | Other paralytic syndrome following other nontraumatic intracranial hemorrhage, bilateral |
| 169.269 | Other paralytic syndrome following other nontraumatic intracranial hemorrhage affecting unspecified side |
| 169.290 | Apraxia following other nontraumatic intracranial hemorrhage |
| 169.291 | Dysphagia following other nontraumatic intracranial hemorrhage |
| 169.292 | Facial weakness following other nontraumatic intracranial hemorrhage |
| 169.293 | Ataxia following other nontraumatic intracranial hemorrhage |
| 169.298 | Other sequelae of other nontraumatic intracranial hemorrhage |
| 169.30 | Unspecified sequelae of cerebral infarction |
| 169.310 | Attention and concentration deficit following cerebral infarction |
| 169.311 | Memory deficit following cerebral infarction |
| 169.312 | Visuospatial deficit and spatial neglect following cerebral infarction |
| 169.313 | Psychomotor deficit following cerebral infarction |
| 169.314 | Frontal lobe and executive function deficit following cerebral infarction |
| 169.315 | Cognitive social or emotional deficit following cerebral infarction |
| 169.318 | Other symptoms and signs involving cognitive functions following cerebral infarction |
| 169.319 | Unspecified symptoms and signs involving cognitive functions following cerebral infarction |
| 169.320 | Aphasia following cerebral infarction |
| 169.321 | Dysphasia following cerebral infarction |
| 169.323 | Fluency disorder following cerebral infarction |
| 169.331 | Monoplegia of upper limb following cerebral infarction affecting right dominant side |
| 169.332 | Monoplegia of upper limb following cerebral infarction affecting left dominant side |
| 169.333 | Monoplegia of upper limb following cerebral infarction affecting right non-dominant side |
| 169.334 | Monoplegia of upper limb following cerebral infarction affecting left non-dominant side |
| 169.339 | Monoplegia of upper limb following cerebral infarction affecting unspecified side |
| 169.341 | Monoplegia of lower limb following cerebral infarction affecting right dominant side |
| 169.342 | Monoplegia of lower limb following cerebral infarction affecting left dominant side |
| 169.343 | Monoplegia of lower limb following cerebral infarction affecting right non-dominant side |
| 169.344 | Monoplegia of lower limb following cerebral infarction affecting left non-dominant side |
| 169.349 | Monoplegia of lower limb following cerebral infarction affecting unspecified side |
| 169.351 | Hemiplegia and hemiparesis following cerebral infarction affecting right dominant side |
| 169.352 | Hemiplegia and hemiparesis following cerebral infarction affecting left dominant side |
| 169.353 | Hemiplegia and hemiparesis following cerebral infarction affecting right non-dominant side |
| 169.354 | Hemiplegia and hemiparesis following cerebral infarction affecting left non-dominant side |
| 169.359 | Hemiplegia and hemiparesis following cerebral infarction affecting unspecified side |
| 169.361 | Other paralytic syndrome following cerebral infarction affecting right dominant side |
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| 169.362 | Other paralytic syndrome following cerebral infarction affecting left dominant side |
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| 169.363 | Other paralytic syndrome following cerebral infarction affecting right non-dominant side |
| 169.364 | Other paralytic syndrome following cerebral infarction affecting left non-dominant side |
| 169.365 | Other paralytic syndrome following cerebral infarction, bilateral |
| 169.369 | Other paralytic syndrome following cerebral infarction affecting unspecified side |
| 169.390 | Apraxia following cerebral infarction |
| 169.391 | Dysphagia following cerebral infarction |
| 169.392 | Facial weakness following cerebral infarction |
| 169.393 | Ataxia following cerebral infarction |
| 169.398 | Other sequelae of cerebral infarction |
| 169.80 | Unspecified sequelae of other cerebrovascular disease |
| 169.810 | Attention and concentration deficit following other cerebrovascular disease |
| 169.811 | Memory deficit following other cerebrovascular disease |
| 169.812 | Visuospatial deficit and spatial neglect following other cerebrovascular disease |
| 169.813 | Psychomotor deficit following other cerebrovascular disease |
| 169.814 | Frontal lobe and executive function deficit following other cerebrovascular disease |
| 169.815 | Cognitive social or emotional deficit following other cerebrovascular disease |
| 169.818 | Other symptoms and signs involving cognitive functions following other cerebrovascular disease |
| 169.819 | Unspecified symptoms and signs involving cognitive functions following other cerebrovascular disease |
| 169.820 | Aphasia following other cerebrovascular disease |
| 169.821 | Dysphasia following other cerebrovascular disease |
| 169.823 | Fluency disorder following other cerebrovascular disease |
| 169.831 | Monoplegia of upper limb following other cerebrovascular disease affecting right dominant side |
| 169.832 | Monoplegia of upper limb following other cerebrovascular disease affecting left dominant side |
| 169.833 | Monoplegia of upper limb following other cerebrovascular disease affecting right non-dominant side |
| 169.834 | Monoplegia of upper limb following other cerebrovascular disease affecting left non-dominant side |
| 169.839 | Monoplegia of upper limb following other cerebrovascular disease affecting unspecified side |
| 169.841 | Monoplegia of lower limb following other cerebrovascular disease affecting right dominant side |
| 169.842 | Monoplegia of lower limb following other cerebrovascular disease affecting left dominant side |
| 169.843 | Monoplegia of lower limb following other cerebrovascular disease affecting right non-dominant side |
| 169.844 | Monoplegia of lower limb following other cerebrovascular disease affecting left non-dominant side |
| 169.849 | Monoplegia of lower limb following other cerebrovascular disease affecting unspecified side |
| 169.851 | Hemiplegia and hemiparesis following other cerebrovascular disease affecting right dominant side |
| 169.852 | Hemiplegia and hemiparesis following other cerebrovascular disease affecting left dominant side |
| 169.853 | Hemiplegia and hemiparesis following other cerebrovascular disease affecting right non-dominant side |
| 169.854 | Hemiplegia and hemiparesis following other cerebrovascular disease affecting left non-dominant side |
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| 169.859 | Hemiplegia and hemiparesis following other cerebrovascular disease affecting unspecified side |
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| 169.861 | Other paralytic syndrome following other cerebrovascular disease affecting right dominant side |
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| 169.862 | Other paralytic syndrome following other cerebrovascular disease affecting left dominant side |
| 169.863 | Other paralytic syndrome following other cerebrovascular disease affecting right non-dominant side |
| 169.864 | Other paralytic syndrome following other cerebrovascular disease affecting left non-dominant side |
| 169.865 | Other paralytic syndrome following other cerebrovascular disease, bilateral |
| 169.869 | Other paralytic syndrome following other cerebrovascular disease affecting unspecified side |
| 169.890 | Apraxia following other cerebrovascular disease |
| 169.891 | Dysphagia following other cerebrovascular disease |
| 169.892 | Facial weakness following other cerebrovascular disease |
| 169.893 | Ataxia following other cerebrovascular disease |
| 169.898 | Other sequelae of other cerebrovascular disease |
| 169.90 | Unspecified sequelae of unspecified cerebrovascular disease |
| 169.910 | Attention and concentration deficit following unspecified cerebrovascular disease |
| 169.911 | Memory deficit following unspecified cerebrovascular disease |
| 169.912 | Visuospatial deficit and spatial neglect following unspecified cerebrovascular disease |
| 169.913 | Psychomotor deficit following unspecified cerebrovascular disease |
| 169.914 | Frontal lobe and executive function deficit following unspecified cerebrovascular disease |
| 169.915 | Cognitive social or emotional deficit following unspecified cerebrovascular disease |
| 169.918 | Other symptoms and signs involving cognitive functions following unspecified cerebrovascular disease |
| 169.919 | Unspecified symptoms and signs involving cognitive functions following unspecified cerebrovascular disease |
| 169.920 | Aphasia following unspecified cerebrovascular disease |
| 169.921 | Dysphasia following unspecified cerebrovascular disease |
| 169.923 | Fluency disorder following unspecified cerebrovascular disease |
| 169.931 | Monoplegia of upper limb following unspecified cerebrovascular disease affecting right dominant side |
| 169.932 | Monoplegia of upper limb following unspecified cerebrovascular disease affecting left dominant side |
| 169.933 | Monoplegia of upper limb following unspecified cerebrovascular disease affecting right non-dominant side |
| 169.934 | Monoplegia of upper limb following unspecified cerebrovascular disease affecting left non-dominant side |
| 169.939 | Monoplegia of upper limb following unspecified cerebrovascular disease affecting unspecified side |
| 169.941 | Monoplegia of lower limb following unspecified cerebrovascular disease affecting right dominant side |
| 169.942 | Monoplegia of lower limb following unspecified cerebrovascular disease affecting left dominant side |
| 169.943 | Monoplegia of lower limb following unspecified cerebrovascular disease affecting right non-dominant side |
| 169.944 | Monoplegia of lower limb following unspecified cerebrovascular disease affecting left non-dominant side |
| 169.949 | Monoplegia of lower limb following unspecified cerebrovascular disease affecting unspecified side |
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| 169.951 | Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting right dominant side | | |
|---------|--|--|--|
| 169.952 | Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting left dominant side | | |
| 169.953 | Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting right non-dominant side | | |
| 169.954 | Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting left non-dominant side | | |
| 169.959 | Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting unspecified side | | |
| 169.961 | Other paralytic syndrome following unspecified cerebrovascular disease affecting right dominant side | | |
| 169.962 | Other paralytic syndrome following unspecified cerebrovascular disease affecting left dominant side | | |
| 169.963 | Other paralytic syndrome following unspecified cerebrovascular disease affecting right non-dominant side | | |
| 169.964 | Other paralytic syndrome following unspecified cerebrovascular disease affecting left non-dominant side | | |
| 169.965 | Other paralytic syndrome following unspecified cerebrovascular disease, bilateral | | |
| 169.969 | Other paralytic syndrome following unspecified cerebrovascular disease affecting unspecified side | | |
| 169.990 | Apraxia following unspecified cerebrovascular disease | | |
| 169.991 | Dysphagia following unspecified cerebrovascular disease | | |
| 169.992 | Facial weakness following unspecified cerebrovascular disease | | |
| 169.993 | Ataxia following unspecified cerebrovascular disease | | |
| 197.810 | Intraoperative cerebrovascular infarction during cardiac surgery | | |
| 197.811 | Intraoperative cerebrovascular infarction during other surgery | | |
| 197.820 | Postprocedural cerebrovascular infarction following cardiac surgery | | |
| 197.821 | Postprocedural cerebrovascular infarction following other surgery | | |
| Q05.0 | Cervical spina bifida with hydrocephalus | | |
| Q05.1 | Thoracic spina bifida with hydrocephalus | | |
| Q05.2 | Lumbar spina bifida with hydrocephalus | | |
| Q05.3 | Sacral spina bifida with hydrocephalus | | |
| Q05.4 | Unspecified spina bifida with hydrocephalus | | |
| Q05.5 | Cervical spina bifida without hydrocephalus | | |
| Q05.6 | Thoracic spina bifida without hydrocephalus | | |
| Q05.7 | Lumbar spina bifida without hydrocephalus | | |
| Q05.8 | Sacral spina bifida without hydrocephalus | | |
| Q05.9 | Spina bifida, unspecified | | |
| Q07.00 | Arnold-Chiari syndrome without spina bifida or hydrocephalus | | |
| Q07.01 | Arnold-Chiari syndrome with spina bifida | | |
| Q07.02 | Arnold-Chiari syndrome with hydrocephalus | | |
| Q07.03 | Arnold-Chiari syndrome with spina bifida and hydrocephalus | | |
| Q14.2 | Congenital malformation of optic disc | | |
| Q87.81 | Alportsyndrome | | |
| Q90.0 | Trisomy 21, nonmosaicism (meiotic nondisjunction) | | |
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| Q90.1 | Trisomy 21, mosaicism (mitotic nondisjunction) | | |
|--------|--|--|--|
| Q90.2 | Trisomy 21, translocation | | |
| Q90.9 | Down syndrome, unspecified | | |
| Q91.0 | Trisomy 18, nonmosaicism (meiotic nondisjunction) | | |
| Q91.1 | Trisomy 18, mosaicism (mitotic nondisjunction) | | |
| Q91.2 | Trisomy 18, translocation | | |
| Q91.3 | Trisomy 18, unspecified | | |
| Q91.4 | Trisomy 13, nonmosaicism (meiotic nondisjunction) | | |
| Q91.5 | Trisomy 13, mosaicism (mitotic nondisjunction) | | |
| Q91.6 | Trisomy 13, translocation | | |
| Q91.7 | Trisomy 13, unspecified | | |
| Q92.0 | Whole chromosome trisomy, nonmosaicism (meiotic nondisjunction) | | |
| Q92.1 | Whole chromosome trisomy, mosaicism (mitotic nondisjunction) | | |
| Q92.2 | Partial trisomy | | |
| Q92.5 | Duplications with other complex rearrangements | | |
| Q92.7 | Triploidy and polyploidy | | |
| Q92.8 | Other specified trisomies and partial trisomies of autosomes | | |
| Q92.9 | Trisomy and partial trisomy of autosomes, unspecified | | |
| Q93.0 | Whole chromosome monosomy, nonmosaicism (meiotic nondisjunction) | | |
| Q93.1 | Whole chromosome monosomy, mosaicism (mitotic nondisjunction) | | |
| Q93.2 | Chromosome replaced with ring, dicentric or isochromosome | | |
| Q93.3 | Deletion of short arm of chromosome 4 | | |
| Q93.4 | Deletion of short arm of chromosome 5 | | |
| Q93.5 | Other deletions of part of a chromosome | | |
| Q93.7 | Deletions with other complex rearrangements | | |
| Q93.81 | Velo-cardio-facial syndrome | | |
| Q93.88 | Other microdeletions | | |
| Q93.89 | Other deletions from the autosomes | | |
| Q93.9 | Deletion from autosomes, unspecified | | |
| Q95.2 | Balanced autosomal rearrangement in abnormal individual | | |
| Q95.3 | Balanced sex/autosomal rearrangement in abnormal individual | | |
| Q95.5 | Individual with autosomal fragile site | | |
| Q95.8 | Other balanced rearrangements and structural markers | | |
| Q95.9 | Balanced rearrangement and structural marker, unspecified | | |
| Q96.0 | Karyotype 45, X | | |
| Q96.1 | Karyotype 46, X iso (Xq) | | |
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| Q96.2 | Karyotype 46, X with abnormal sex chromosome, except iso (Xq) |
|---------|--|
| Q96.3 | Mosaicism, 45, X/46, XX or XY |
| Q96.4 | Mosaicism, 45, X/other cell line(s) with abnormal sex chromosome |
| Q96.8 | Other variants of Turner's syndrome |
| Q96.9 | Turner's syndrome, unspecified |
| Q98.0 | Klinefelter syndrome karyotype 47, XXY |
| Q98.1 | Klinefeltersyndrome, male with more than two X chromosomes |
| Q98.3 | Other male with 46, XX karyotype |
| Q98.4 | Klinefelter syndrome, unspecified |
| Q99.2 | Fragile X chromosome |
| R29.5 | Transient paralysis |
| R41.840 | Attention and concentration deficit |
| R62.0 | Delayed milestone in childhood |
| Z01.00 | Encounter for examination of eyes and vision without abnormal findings |
| Z01.01 | Encounter for examination of eyes and vision with abnormal findings |

References

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- 2. Donahue S, Baker C. Committee on Practice and Ambulatory Medicine, Section on Ophthalmology, American Association of Certified Orthoptists, American Association for Pediatric Ophthalmology and Strabismus, American Academy of Ophthalmology. Visual System Assessment in Infants, Children, and Young Adults by Pediatricians. Pediatrics 2016;137;1
- 3. Longmuir SQ, Pfeifer W, Leon A, et al. Nine-year results of a volunteer lay network photoscreening program of 147 809 children using a photoscreener in Iowa. Ophthalmology. 2010 Oct;117(10):1869-75.
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- 9. Specialty matched clinical peer review.

Revision History

| Company(ies) | DATE | REVISION |
|--------------|-------------|---|
| EmblemHealth | May 8, 2020 | Added clarification that retinal birefringence scanning (CPT code 0469T) is not |

| ConnectiCare | considered medically necessary. |
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