



MASSACHUSETTS

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Medical Policy

Orthoptic Training for the Treatment of Vision or Learning Disabilities

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Policy Number: 611

BCBSA Reference Number: 9.03.03

NCD/LCD: N/A

Related Policies

- Endothelial Keratoplasty, [#180](#)
- Epiretinal Radiation Therapy for Age-Related Macular Degeneration, [#610](#)
- Gas Permeable Scleral Contact Lens, [#371](#)
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- Vision Services, [#675](#)

Policy

Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO BlueSM and Medicare PPO BlueSM Members

Office-based vergence/accommodative therapy may be **MEDICALLY NECESSARY** for patients with symptomatic convergence insufficiency if, following a minimum of 12 weeks of home-based therapy (eg, push-up exercises using an accommodative target; push-up exercises with additional base-out prisms; jump to near convergence exercises; stereogram convergence exercises; recession from a target; and maintaining convergence for 30-40 seconds), symptoms have failed to improve.

Up to 12 sessions of office-based vergence/accommodative therapy, typically performed once a week, has been shown to improve symptomatic convergence insufficiency in children ages 9 to 17 years. If patients remain symptomatic after 12 weeks of orthoptic training, alternative interventions should be considered.

Orthoptic eye exercises are considered **NOT MEDICALLY NECESSARY** for the treatment of learning disabilities.

Orthoptic eye exercises are **INVESTIGATIONAL** for all other conditions, including but not limited to the following:

- Slow reading
- Visual disorders other than convergence insufficiency such as:
 - Amblyopia
 - Eye movement disorders
 - Focusing disorders
 - Non-strabismic binocular dysfunctions
 - Nystagmus
 - Strabismus.

Prior Authorization Information

Inpatient

- For services described in this policy, precertification/preauthorization **IS REQUIRED** for all products if the procedure is performed **inpatient**.

Outpatient

- For services described in this policy, see below for products where prior authorization **might be required** if the procedure is performed **outpatient**.

	Outpatient
Commercial Managed Care (HMO and POS)	Prior authorization is not required .
Commercial PPO and Indemnity	Prior authorization is not required .
Medicare HMO Blue SM	Prior authorization is not required .
Medicare PPO Blue SM	Prior authorization is not required .

CPT Codes / HCPCS Codes / ICD Codes

Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

The following codes are included below for informational purposes only; this is not an all-inclusive list.

The above **medical necessity criteria MUST** be met for the following codes to be covered for Commercial Members: Managed Care (HMO and POS), PPO, Indemnity, Medicare HMO Blue and Medicare PPO Blue:

CPT Codes

CPT codes:	Code Description
92065	Orthoptic and/or pleoptic training, with continuing medical direction and evaluation

The following ICD Diagnosis Codes are considered medically necessary when submitted with the CPT code above if **medical necessity criteria** are met:

ICD-10-CM Diagnosis Codes

ICD-10-CM diagnosis codes:	Code Description
H51.11	Convergence insufficiency

Description

Treatment

Orthoptic training refers to techniques designed to correct accommodative and convergence insufficiency (or convergence dysfunction), which may include push-up exercises using an accommodative target of letters, numbers, or pictures; push-up exercises with additional base-out prisms; jump-to-near convergence exercises; stereogram convergence exercises; and recession from a target.¹ A related but distinct training technique is behavioral or perceptual vision therapy, in which eye movement and eye-hand coordination training techniques are used to improve learning efficiency by optimizing visual processing skills.

In addition to its use in the treatment of accommodative and convergence dysfunction, orthoptic training is being investigated for the treatment of attention deficit disorders, dyslexia, dysphasia, and reading disorders.

Summary

Orthoptic training refers to techniques designed to correct accommodative and convergence insufficiency (or convergence dysfunction). Regimens may include push-up exercises using an accommodative target of letters, numbers, or pictures; push-up exercises with additional base-out prisms; jump-to-near convergence exercises; stereogram convergence exercises; and/or recession from a target. In addition to its use to treat convergence insufficiency, orthoptic training has been investigated for treating attention deficit disorders, dyslexia, and dysphasia.

For individuals who have convergence insufficiency who receive office-based orthoptic training, the evidence includes a TEC Assessment, several randomized controlled trials, and nonrandomized comparative studies. Relevant outcomes are symptoms and functional outcomes. The most direct evidence on office-based orthoptic training comes from a 2008 randomized controlled trial that demonstrated office-based vision or orthoptic training improves symptoms of convergence insufficiency in a greater percentage of patients than a home-based vision exercise program consisting of pencil push-ups or home computer vision exercises. Subgroup analyses of this randomized controlled trial demonstrated improvements in accommodative vision, parental perception of academic behavior, and specific convergence insufficiency-related symptoms. However, in this trial, as in others, the home-based regimen did not include the full range of home-based therapies, which may have biased results in favor of the orthoptic training. The evidence is insufficient to determine the effects of the technology on health outcomes.

Clinical input obtained in 2011 supported the use of office-based orthoptic training when home-based therapy has failed. Therefore, orthoptic training may be considered medically necessary in patients with convergence insufficiency whose symptoms have failed to improve with a home-based treatment trial of at least 12 weeks. Home-based therapy should include push-up exercises using an accommodative target, push-up exercises with additional base-out prisms, jump-to-near convergence exercises, stereogram convergence exercises, recession from a target, and maintaining convergence for 30 to 40 seconds.

For individuals who have learning disabilities who receive office-based orthoptic training, the evidence includes a TEC Assessment as well as nonrandomized comparative and noncomparative studies. Relevant outcomes are functional outcomes. A 1996 TEC Assessment did not find evidence that orthoptic training improved outcomes for individuals with learning disabilities. Since that publication, peer-reviewed studies have not directly demonstrated improvements in reading or learning outcomes with orthoptic training. At least two earlier studies that addressed other types of vision therapies have reported mixed improvements in reading. The evidence is insufficient to determine the effects of the technology on health outcomes.

Policy History

Date	Action
5/2020	BCBSA National medical policy review. Description, summary and references updated. Policy statements unchanged.
4/2019	BCBSA National medical policy review. Description, summary and references updated. Policy statements unchanged.
9/2017	Medically necessary criteria clarified.
4/2017	New references added from BCBSA National medical policy.
3/2015	New references added from BCBSA National medical policy.
12/2014	BCBSA National medical policy review. New medically necessary indications described. Effective 12/1/2014.
5/2014	Medical policy ICD10 remediation: Formatting, editing and coding updates. No changes to policy statements.
2/2012	MPG Psychiatry and Ophthalmology, no changes in coverage were made.
9/2011	Added covered indication (378.83: Other disorders of binocular eye movements; convergence insufficiency or palsy) for orthotopic/pleotopic training. Effective 9/1/2011.

Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:

[Medical Policy Terms of Use](#)

[Managed Care Guidelines](#)

[Indemnity/PPO Guidelines](#)

[Clinical Exception Process](#)

[Medical Technology Assessment Guidelines](#)

References

1. Handler SM, Fierson WM, American Academy of Ophthalmology Section on Ophthalmology and Council on Children with Disabilities, et al. Learning disabilities, dyslexia, and vision. *Pediatrics*. Mar 2011;127(3):e818-856. PMID 21357342
2. Blue Cross and Blue Shield Association Technology Evaluation Center (TEC). Orthoptic training for the treatment of learning disabilities. *TEC Assessments*. 1996;Volume 11:Tab 2.
3. Rawstron JA, Burley CD, Elder MJ. A systematic review of the applicability and efficacy of eye exercises. *J Pediatr Ophthalmol Strabismus*. Mar-Apr 2005;42(2):82-88. PMID 15825744
4. Scheiman M, Gwiazda J, Li T. Non-surgical interventions for convergence insufficiency. *Cochrane Database Syst Rev*. Mar 16 2011(3):CD006768. PMID 21412896
5. Convergence Insufficiency Treatment Trial Study Group. Randomized clinical trial of treatments for symptomatic convergence insufficiency in children. *Arch Ophthalmol*. Oct 2008;126(10):1336-1349. PMID 18852411
6. Convergence Insufficiency Treatment Trial Study Group. Long-term effectiveness of treatments for symptomatic convergence insufficiency in children. *Optom Vis Sci*. Sep 2009;86(9):1096-1103. PMID 19668097
7. Scheiman M, Cotter S, Kulp MT, et al. Treatment of accommodative dysfunction in children: results from a randomized clinical trial. *Optom Vis Sci*. Nov 2011;88(11):1343-1352. PMID 21873922
8. Borsting E, Mitchell GL, Kulp MT, et al. Improvement in academic behaviors after successful treatment of convergence insufficiency. *Optom Vis Sci*. Jan 2012;89(1):12-18. PMID 22080400
9. Barnhardt C, Cotter SA, Mitchell GL, et al. Symptoms in children with convergence insufficiency: before and after treatment. *Optom Vis Sci*. Oct 2012;89(10):1512-1520. PMID 22922781
10. Scheiman M, Cotter S, Rouse M, et al. Randomised clinical trial of the effectiveness of base-in prism reading glasses versus placebo reading glasses for symptomatic convergence insufficiency in children. *Br J Ophthalmol*. Oct 2005;89(10):1318-1323. PMID 16170124
11. Scheiman M, Mitchell GL, Cotter S, et al. A randomized clinical trial of treatments for convergence insufficiency in children. *Arch Ophthalmol*. Jan 2005;123(1):14-24. PMID 15642806

12. Shin HS, Park SC, Maples WC. Effectiveness of vision therapy for convergence dysfunctions and long-term stability after vision therapy. *Ophthalmic Physiol Opt.* Mar 2011;31(2):180-189. PMID 21309805
13. Dusek WA, Pierscionek BK, McClelland JF. An evaluation of clinical treatment of convergence insufficiency for children with reading difficulties. *BMC Ophthalmol.* Aug 11 2011;11:21. PMID 21835034
14. Lee SH, Moon BY, Cho HG. Improvement of vergence movements by vision therapy decreases K-ARS scores of symptomatic adhd children. *J Phys Ther Sci.* Feb 2014;26(2):223-227. PMID 24648636
15. Momeni-Moghaddam H, Kundart J, Azimi A, et al. The effectiveness of home-based pencil push-up therapy versus office-based therapy for the treatment of symptomatic convergence insufficiency in young adults. *Middle East Afr J Ophthalmol.* Jan-Mar 2015;22(1):97-102. PMID 25624682
16. Borsting E, Mitchell GL, Arnold LE, et al. Behavioral and emotional problems associated with convergence insufficiency in children: an open trial. *J Atten Disord.* Oct 2016;20(10):836-844. PMID 24271946
17. Ramsay MW, Davidson C, Ljungblad M, et al. Can vergence training improve reading in dyslexics? *Strabismus.* Dec 2014;22(4):147-151. PMID 25333204
18. Stein JF, Richardson AJ, Fowler MS. Monocular occlusion can improve binocular control and reading in dyslexics. *Brain.* Jan 2000;123(Pt 1):164-170. PMID 10611130
19. Christenson GN, Griffin JR, Taylor M. Failure of blue-tinted lenses to change reading scores of dyslexic individuals. *Optometry.* Oct 2001;72(10):627-633. PMID 11712629
20. Grisham D, Powers M, Riles P. Visual skills of poor readers in high school. *Optometry.* Oct 2007;78(10):542-549. PMID 17904495
21. Palomo-Alvarez C, Puell MC. Accommodative function in school children with reading difficulties. *Graefes Arch Clin Exp Ophthalmol.* Dec 2008;246(12):1769-1774. PMID 18751994
22. Ponsonby AL, Williamson E, Smith K, et al. Children with low literacy and poor stereoacuity: an evaluation of complex interventions in a community-based randomized trial. *Ophthalmic Epidemiol.* Sep-Oct 2009;16(5):311- 321. PMID 19874111
23. Joint statement: learning disabilities, dyslexia, and vision reaffirmed 2014. American Academy of Ophthalmology, American Association for Pediatric Ophthalmology and Strabismus, American Association of Certified Orthoptists, et al. <https://www.aao.org/clinical-statement/joint-statement-learning-disabilities-dyslexia-vis>. Updated July 2014. Accessed February 7, 2020.