MEDICAL POLICY – 9.03.508
Orthoptic Training for the Treatment of Vision or Learning Disabilities

BCBSA Ref. Policy: 9.03.03
Effective Date: June 1, 2023
Last Revised: May 5, 2023
Replaces: 9.03.03

RELATED MEDICAL POLICIES: None

Select a hyperlink below to be directed to that section.

POLICY CRITERIA | DOCUMENTATION REQUIREMENTS | CODING
RELATED INFORMATION | EVIDENCE REVIEW | REFERENCES | HISTORY

Selecting this icon returns you to the hyperlinks menu above.

Introduction

Orthoptic training is vision training. Eye health professionals prescribe a series of exercises done over several weeks to try to address eye problems such as “lazy eye” (amblyopia), misalignment (strabismus), and problems with eye movement. Medical studies show that vision training can be successful when used to train both eyes in working together (convergence insufficiency). Studies do not show that one type of orthoptic training (accommodative therapy) is helpful when the eyes have problems adjusting their focus from far objects to near ones. This policy describes when in-office vision training may be considered medically necessary. Medical studies do not show that vision training is successful in treating eye problems other than convergence insufficiency, or in treating slow reading or learning disabilities.

Note: The Introduction section is for your general knowledge and is not to be taken as policy coverage criteria. The rest of the policy uses specific words and concepts familiar to medical professionals. It is intended for providers. A provider can be a person, such as a doctor, nurse, psychologist, or dentist. A provider also can be a place where medical care is given, like a hospital, clinic, or lab. This policy informs them about when a service may be covered.

Policy Coverage Criteria
Note: Some member contracts do not have benefits to cover vision therapy. Refer to member contract language for benefit determination on vision therapy (see Benefit Application below).

<table>
<thead>
<tr>
<th>Service</th>
<th>Medical Necessity</th>
</tr>
</thead>
</table>
| Office-based vergence / accommodative therapy | Office-based vergence/accommodative therapy* may be considered medically necessary when:  
• The individual has a diagnosis of symptomatic convergence insufficiency  
AND  
• At least 12 weeks of home-based therapies, consisting of any ONE of the following, have been completed with no symptom improvement:  
o Push-up exercises using an accommodative target  
o Push-up exercises with additional base-out prisms  
o Jump-to-near convergence exercises  
o Stereogram convergence exercises  
o Recession from a target  
o Maintaining convergence for 30-40 seconds  
Note:* See Additional Information |

<table>
<thead>
<tr>
<th>Service</th>
<th>Investigational</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthoptic training (eye exercises) or vision therapy</td>
<td>Orthoptic training (eye exercises) is considered investigational for the treatment of learning and reading disabilities, including dyslexia.</td>
</tr>
</tbody>
</table>
| Orthoptic eye exercises or vision therapy     | Orthoptic eye exercises or vision therapy are investigational for all other conditions, including but not limited to the following:  
• Slow reading  
• Visual disorders other than convergence insufficiency |
| Neuro-visual (optometric) rehabilitation (may see as CPT 97110, 97530) | Neuro-visual (optometric) rehabilitation is investigational for any neurological condition adversely affecting the visual system after brain injury including, but not limited to, the following:  
• Cerebrovascular accident/stroke  
• Concussion |
<table>
<thead>
<tr>
<th>Service</th>
<th>Investigational</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Encephalopathy</td>
</tr>
<tr>
<td></td>
<td>• Post-surgical brain complications</td>
</tr>
<tr>
<td></td>
<td>• Traumatic brain injury</td>
</tr>
<tr>
<td></td>
<td>• Vestibular dysfunction</td>
</tr>
</tbody>
</table>

**Documentation Requirements**

The medical records submitted for review should document that medical necessity criteria are met. The record should include:

- History and physical supporting the diagnosis submitted

**AND**

- Documentation of completion of 12 weeks of ANY of the following home-based therapies without improvement of symptoms, if applicable:
  - Push-up exercises using an accommodative target
  - Push-up exercises with additional base-out prisms
  - Jump to near convergence exercises, stereogram convergence exercises
  - Stereogram convergence exercises
  - Recession from a target
  - Maintaining convergence for 30-40 seconds

**Coding**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT</td>
<td></td>
</tr>
<tr>
<td>92065</td>
<td>Orthoptic training</td>
</tr>
<tr>
<td>92066</td>
<td>Orthoptic training; under supervision of a physician or other qualified health care professional (new code effective 1/1/2023)</td>
</tr>
<tr>
<td>97110</td>
<td>Therapeutic procedure, 1 or more areas, each 15 minutes; therapeutic exercises to develop strength and endurance, range of motion and flexibility</td>
</tr>
<tr>
<td>97530</td>
<td>Therapeutic activities, direct (one-on-one) patient contact (use of dynamic activities to improve functional performance), each 15 minutes</td>
</tr>
</tbody>
</table>

**HCPCS**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>V2799</td>
<td>Vision service, miscellaneous</td>
</tr>
</tbody>
</table>
Related Information

Benefit Application

Some member contracts do not have benefits to cover vision therapy. Refer to member contract language for benefit determination on vision therapy.

Orthoptic eye exercises may be offered by orthoptists, optometrists, or ophthalmologists.

If the request is for individual outpatient physical medicine and rehabilitation therapeutic procedures for treatment with vision therapy or neurovisual (optometric) rehabilitation, then these requests would be reviewed by Care Management.

If the request is for individual outpatient physical medicine rehabilitation-physical therapy and/or occupational therapy therapeutic procedures that are unrelated to vision therapy or neurovisual (optometric) rehabilitation, see the member contract to determine medical necessity review requirements. Please contact Customer Service to check the member’s contract.

Additional Information

This policy addresses office-based orthoptic training. It does not address standard vision therapy with lenses, prisms, filters, or occlusion (i.e., for treatment of amblyopia or acquired esotropia prior to surgical intervention).

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 individuals remain symptomatic after 12 weeks of orthoptic training, alternative interventions should be considered.

A diagnosis of convergence insufficiency is based on asthenopic symptoms (sensations of visual or ocular discomfort) at near point combined with difficulty sustaining convergence.

Convergence insufficiency and stereoacuity are documented by:

- Exodeviation at near vision at least 4 prism diopters greater than at far vision; **AND**
• Insufficient positive fusional vergence at near (positive fusional vergence < 15 prism diopters blur or break) on positive fusional vergence testing using a prism bar; **AND**

• Near point of convergence break of more than 6 cm; **AND**

• Appreciation by the individual of at least 500 seconds of arc on stereoacuity testing

**Consideration of Age**

The age of office-based vergence/accommodative therapy discussed in Additional Information is based on Convergence Insufficiency Treatment Trial (CITT), a randomized clinical trial of 221 children age 9 to 17. This trial was conducted at multiple centers and funded by the National Eye Institute, a component of the National Institutes of Health (PMID 18852411).

**Evidence Review**

**Description**

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 as a treatment for attention deficient disorders, dyslexia, and dysphasia.

**Background**

**Convergence Insufficiency**

Convergence insufficiency is a binocular vision disorder associated with defects in the eyes’ ability to turn inward toward each other (e.g., when looking at near objects). The diagnosis of convergence insufficiency is made when individuals have a remote near point of convergence or difficulty in sustaining convergence in conjunction with sensations of visual or ocular discomfort.
at near vision. Symptoms of this common condition may include eyestrain, headaches, blurred vision, diplopia, sleepiness, difficulty concentrating, movement of print, and loss of comprehension after short periods of reading or performing close activities. Prism reading glasses, home therapy with pencil push-ups, and office-based vision therapy and orthoptics have been evaluated for the treatment of convergence insufficiency.

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. 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 deficient disorders, dyslexia, dysphasia, and reading disorders.

Dyslexia and Learning Disabilities

Some learning disabilities, particularly those in which reading is impaired, have been associated with deficits in eye movements and/or visual tracking. Dyslexia is a neuro-developmental condition that causes reading difficulties in 5% to 10% of children (particularly boys). It is characterized by a deficiency in processing the phonological component of language that makes up written and spoken words. Proponents of vision therapy propose that many dyslexics have impaired development of the magnocellular component of the visual system which is responsible for timing visual events when reading. Stein (2000) theorized that poor control of eye movements may cause unstable binocular fixation with unsteady vision and may explain why some individuals report that words move around on a page for them.

Because dyslexia is a language based disorder, treatment should be directed at this etiology. Vision problems can interfere with the process of reading, but children with dyslexia or related learning disabilities have been found to have the same visual function and ocular health as children without these conditions. There is insufficient scientific evidence currently to support the theory that certain eye or visual problems can cause or increase the severity of learning
disabilities. Claims that visual training, muscle exercises, ocular pursuit-and-tracking exercises, behavioral/perceptual vision therapy, “training” glasses, prisms, and colored lenses and filters are effective direct or indirect treatments for learning disabilities are not supported by scientific evidence.

**Neuro-Visual (Optometric) Rehabilitation**

Neuro-visual therapy is proposed as a nonsurgical individualized treatment designed to correct visual-motor or visual cognitive deficits. The therapy is intended to assist in developing new neurological pathways related to the eyes and visual perceptions. Rehabilitation over multiple sessions is theorized to help learning disabilities, reading, attention deficit disorders, eye-hand coordination and balance following brain injuries. Neurovisual rehabilitation is purported to enhance vision capabilities, reduce visual stress, and rehabilitate vision problems.

**Summary of Evidence**

For individuals who have convergence insufficiency who receive office-based orthoptic training, the evidence includes a TEC Assessment, systematic reviews, several randomized controlled trials (RCTs), and nonrandomized comparative studies. Relevant outcomes are symptoms and functional outcomes. The most direct evidence on office-based orthoptic training comes from a 2008 RCT that demonstrated that office-based vision or orthoptic training improves symptoms of convergence insufficiency in a greater percentage of individuals than a home-based vision exercise program consisting of pencil push-ups or home computer vision exercises. Subgroup analyses of this RCT 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. Another RCT published in 2019 did not find a difference in symptoms of convergence insufficiency between office-based orthoptic training plus home exercises and office-based placebo therapy plus home exercises, possibly due to notable improvements in symptoms in the placebo group. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have learning disabilities who receive office-based orthoptic training, the evidence includes nonrandomized comparative and noncomparative studies. Relevant outcomes are functional outcomes. 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 that the technology results in an improvement in the net health outcome.

**Additional Information**

Clinical input was sought to help determine whether the use of orthoptic training for individuals with convergence insufficiency or learning disabilities would provide an improvement in net health outcome and whether the use is consistent with generally accepted medical practice. In response to requests, input was received from 4 physician specialty societies (5 reviewers) and 3 academic medical centers while this policy was under review in 2011.

Clinical input 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.

**Neuro-Visual (Optometric) Rehabilitation**

There is a limited body of evidence addressing vision therapy in general and neurovisual rehabilitation specifically in children following brain injuries.

There is insufficient published evidence to assess the safety or impact on health outcomes or individual management regarding the use of neurovisual rehabilitation following brain injuries in children.

**Ongoing and Unpublished Clinical Trials**

Some currently ongoing and unpublished trials that might influence this review are listed in Table 1.
Table 1. Summary of Key Trials

<table>
<thead>
<tr>
<th>NCT No.</th>
<th>Trial Name</th>
<th>Planned Enrollment</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ongoing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCT03908112</td>
<td>Interventions for Convergence Insufficiency in Concussed Children (ICONICC)</td>
<td>264</td>
<td>March 2025</td>
</tr>
</tbody>
</table>

NCT: national clinical trial

Clinical Input Received from Physician Specialty Societies and Academic Medical Centers

While the various physician specialty societies and academic medical centers may collaborate with and make recommendations during this process, through the provision of appropriate reviewers, input received does not represent an endorsement or position statement by the physician specialty societies or academic medical centers, unless otherwise noted.

In response to requests, input was received from four physician specialty societies (five reviewers) and three academic medical centers while this policy was under review in 2011. Although input supported the use of office-based orthoptic training when home-based therapy had failed, some reviewers indicated that home-based therapy would typically include more exercises than pencil push-ups. Recommended were 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.

Practice Guidelines and Position Statements

The purpose of the following information is to provide reference material. Inclusion does not imply endorsement or alignment with the policy conclusions.

Guidelines or position statements will be considered for inclusion if they were issued by, or jointly by, a U.S. professional society, an international society with U.S. representation, or National Institute for Health and Care Excellence (NICE). Priority will be given to guidelines that are informed by a systematic review, include strength of evidence ratings, and include a description of management of conflict of interest.
American Academy of Pediatrics et al

In 2009 (reaffirmed in 2014\(^2\)), the American Academy of Pediatrics, American Academy of Ophthalmology, American Association for Pediatric Ophthalmology and Strabismus, and the American Association of Certified Orthoptists issued a joint policy statement on pediatric learning disabilities, dyslexia, and vision. For vision therapy, the statement concluded:

> Currently, there is no adequate scientific evidence to support the view that subtle eye or visual problems cause learning disabilities. Furthermore, the evidence does not support the concept that vision therapy or tinted lenses or filters are effective, directly or indirectly, in the treatment of learning disabilities. Thus, the claim that vision therapy improves visual efficiency cannot be substantiated. Diagnostic and treatment approaches that lack scientific evidence of efficacy are not endorsed or recommended.

In 2011, these same four associations also published a joint technical report on learning disabilities, dyslexia, and vision.\(^1\) This report concluded:

> There is inadequate scientific evidence to support the view that subtle eye or visual problems cause or increase the severity of learning disabilities... Scientific evidence does not support the claims that visual training, muscle exercises, ocular pursuit-and-tracking exercises, behavioral/perceptual vision therapy, ‘training' glasses, prisms, and colored lenses and filters are effective direct or indirect treatments for learning disabilities.

Medicare National Coverage

There is no national coverage determination.

References


### History

<table>
<thead>
<tr>
<th>Date</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>07/01/18</td>
<td>New policy, approved June 12, 2018, effective October 5, 2018. This policy replaces policy 9.03.03 Orthoptic Training for the Treatment of Vision or Learning Disabilities. Orthoptic training or vision therapy policy statement changed from not medically necessary to investigational for the treatment of learning and reading disabilities, including dyslexia. Policy statements added as investigational: visual disorders other than convergence insufficiency such as, exotropia, nystagmus, convergence excess, divergence insufficiency, stroke or brain injury with visuospatial deficit, hemispatial neglect, or visual loss. Visual perceptual training, vision restoration therapy, and neurovisual (optometric) rehabilitation policy statements added as investigational.</td>
</tr>
<tr>
<td>09/21/18</td>
<td>Minor update. Added Consideration of Age statement.</td>
</tr>
<tr>
<td>06/01/19</td>
<td>Annual Review, approved May 7, 2019. Policy updated with literature review through January 2019; no references added. Policy statements unchanged.</td>
</tr>
<tr>
<td>01/01/22</td>
<td>Coding update, updated coding description for CPT code 92065.</td>
</tr>
<tr>
<td>06/01/22</td>
<td>Annual Review, approved May 23, 2022. Policy updated with literature review through December 20, 2021; References added. Policy statement unchanged.</td>
</tr>
<tr>
<td>01/01/23</td>
<td>Coding update. Added new CPT code 92066.</td>
</tr>
<tr>
<td>Date</td>
<td>Comments</td>
</tr>
<tr>
<td>------</td>
<td>----------</td>
</tr>
<tr>
<td></td>
<td>from &quot;Orthoptic Training, Vision Therapy, Visual Perceptual Training, Vision Restoration Therapy, and Neuro-visual Rehabilitation&quot; to &quot;Orthoptic Training for the Treatment of Vision or Learning Disabilities.&quot; Removed policy statements on vision perceptual training, vision restoration therapy, and list of other visual disorders for which orthoptic eye exercises or vision therapy are considered investigational. Changed the wording from &quot;patient&quot; to &quot;individual&quot; throughout the policy for standardization.</td>
</tr>
</tbody>
</table>

**Disclaimer:** This medical policy is a guide in evaluating the medical necessity of a particular service or treatment. The Company adopts policies after careful review of published peer-reviewed scientific literature, national guidelines and local standards of practice. Since medical technology is constantly changing, the Company reserves the right to review and update policies as appropriate. Member contracts differ in their benefits. Always consult the member benefit booklet or contact a member service representative to determine coverage for a specific medical service or supply. CPT codes, descriptions and materials are copyrighted by the American Medical Association (AMA). ©2023 Premera All Rights Reserved.

**Scope:** Medical policies are systematically developed guidelines that serve as a resource for Company staff when determining coverage for specific medical procedures, drugs or devices. Coverage for medical services is subject to the limits and conditions of the member benefit plan. Members and their providers should consult the member benefit booklet or contact a customer service representative to determine whether there are any benefit limitations applicable to this service or supply. This medical policy does not apply to Medicare Advantage.
Premera Blue Cross (Premera) complies with applicable Federal and Washington state civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, sex, gender identity, or sexual orientation. Premera does not exclude people or treat them differently because of race, color, national origin, age, disability, sex, gender identity, or sexual orientation. Premera provides free aids and services to people with disabilities to communicate effectively with us, such as qualified sign language interpreters and written information in other formats (large print, audio, accessible electronic formats, other formats). Premera provides free language services to people whose primary language is not English, such as qualified interpreters and information written in other languages. If you need these services, contact the Civil Rights Coordinator. If you believe that Premera has failed to provide these services or discriminated in another way on the basis of race, color, national origin, age, disability, sex, gender identity, or sexual orientation, you can file a grievance with: Civil Rights Coordinator — Complaints and Appeals, PO Box 91102, Seattle, WA 98111, Toll free: 855-332-4535, Fax: 425-918-5592, TTY: 711, Email AppealsDepartmentInquiries@Premera.com. You can file a grievance in person or by mail, fax, or email. If you need help filing a grievance, the Civil Rights Coordinator is available to help you. You can also file a civil rights complaint with the U.S. Department of Health and Human Services, Office for Civil Rights, electronically through the Office for Civil Rights Complaint Portal, available at https://ocrportal.hhs.gov/ocr/portal/lobby.jsf, or by mail or phone at: U.S. Department of Health and Human Services, 200 Independence Ave SW, Room 509F, HHH Building, Washington, D.C. 20201, 1-800-368-1019, 800-537-7697 (TDD). Complaint forms are available at http://www.hhs.gov/ocr/office/index.html.


Alaska residents: Contact the Alaska Division of Insurance via email at insurance@alaska.gov, or by phone at 907-269-7900 or 1-800-INSURAK (in-state, outside Anchorage).

Language Assistance

ATENCIÓN: si habla español, tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al 800-722-1471 (TTY: 711).


 заметки: вы говорите на русском языке, то вам доступны бесплатные услуги перевода. Звоните 800-722-1471 (телетайп: 711).


注意事項: 日本語を話される場合、無料の語音支援をご利用いただけます。800-722-1471 (TTY: 711) まで、お電話にてご連絡ください。


УВАГА! Якщо ви розмовляєте українською мовою, ви можете звернутися до безкоштовної служби мовної підтримки. Телефонуйте за номером 800-722-1471 (телетайп: 711).

ONLINE SERVICES: สำหรับผู้ที่พูดภาษาไทยคุณสามารถใช้บริการช่วยเหลือทางภาษาได้ฟรี โทร 800-722-1471 (TTY: 711).


Мы ждем ваших вопросов на русском языке. Вы можете также обращаться по телефону 800-722-1471 (TTY: 711).