Orthoptic Training for the Treatment of Vision or Learning Disabilities

Policy

Office-based vergence/accommodative therapy may be considered medically necessary for patients with symptomatic convergence insufficiency if, following a minimum of 12 weeks of home-based therapy (e.g., 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.

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

Related Policies

None

Policy Guidelines

Coding

<table>
<thead>
<tr>
<th>CPT</th>
<th>Description</th>
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<tr>
<td>92065</td>
<td>Orthoptic and/or pleoptic training, with continuing medical direction and evaluation</td>
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<tr>
<td>V2799</td>
<td>Vision service, miscellaneous</td>
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This policy addresses office-based orthoptic training. This policy 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 per week, has been shown to improve symptomatic convergence insufficiency in children aged 9 to 17 years. If patients 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 is documented by:

- Exodeviation at near at least 4 prism diopters greater than at far; AND
- Insufficient positive fusional vergence at near (positive fusional vergence (PFV) less than 15 prism diopters blur or break) on PFV testing using a prism bar; AND
- Near point of convergence (NPC) break of more than 6 cm; AND
- Appreciation by the patient of at least 500 seconds of arc on stereoacuity testing.

**Description**

Orthoptic training refers to techniques designed to correct accommodative and convergence dysfunction/convergence insufficiency. 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. Orthoptic training is used to treat convergence insufficiency and has been investigated for treat attention deficient disorders, dyslexia, and dysphasia.

The evidence for use of office-based orthoptic training in individuals who have convergence insufficiency includes a TEC Assessment, 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 office-based vision/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. Subanalyses 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. The evidence is insufficient to determine the effects of the technology on health outcomes.

The evidence for office-based orthoptic training in individuals who have learning disabilities includes a TEC Assessment and 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 an improvement in reading or learning outcomes with orthoptic training. At least 2 earlier studies that addressed other types of vision therapies were mixed in reporting improvements in reading. The evidence is insufficient to determine the effects of the technology on health outcomes.

Clinical input from academic medical centers and physician specialty societies have 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.

**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.

**Benefit Application**

<table>
<thead>
<tr>
<th>Populations</th>
<th>Interventions</th>
<th>Comparators</th>
<th>Outcomes</th>
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| Individuals:  
  • With convergence insufficiency | Interventions of interest are:  
  • Office-based orthoptic training | Comparators of interest are:  
  • Home-based vision exercises | Relevant outcomes include:  
  • Symptoms  
  • Functional outcomes |
| Individuals:  
  • With learning disabilities | Interventions of interest are:  
  • Office-based orthoptic training | Comparators of interest are:  
  • Standard therapy without orthoptic training | Relevant outcomes include:  
  • Functional outcomes |

This policy was created in 1996 based on a 1996 TEC Assessment, (2) which offered the following observations and conclusions.

If visual problems have a causal relationship to reading disorders, then it would follow that successful treatment of such visual anomalies might result in an improvement in reading. However, if visual anomalies are the result of a central processing deficit, orthoptic training would not be effective and might possibly be harmful. For example, atypical eye movements might be a compensatory response among persons with reading disorders to obtain sensory information in a manner that they can process. Finally, if eye movement anomalies are uncorrelated to reading disorders, then the presence of a reading disorder would not be an indication for orthoptic intervention.

Three scientific issues must be addressed in the evaluation of orthoptic training: (1) whether available evidence supports the proposition that visual defects have a role in the development or maintenance of reading disorders; (2) whether orthoptics alters the identified visual defects; and most importantly, (3) whether treating the visual defects results in improved reading comprehension. The TEC Assessment concluded that the evidence available at that time did not support the conclusion that orthoptic training improves reading comprehension. (3-6)

Specifically, the study populations in the available published reports were not well-defined, and while the subjects were reported to be “poor readers,” it could not be determined whether they had a verifiable diagnosis of a reading disorder. In addition, objective outcomes of reading comprehension were lacking in the published studies.

Since the 1996 TEC Assessment, updated literature searches using the MEDLINE database have been performed on a periodic basis, the most recent through January 29, 2016. The following is a summary of key literature to date.

**Orthoptic Training for Convergence Insufficiency**

**Systematic Reviews**

At least 2 systematic reviews have addressed the role of orthoptic training for convergence insufficiency. A 2005 systematic review of the applicability and efficacy of eye exercises found that small controlled trials and a large number of cases support their use in the treatment of convergence insufficiency.(7)

A 2011 Cochrane review by Scheiman et al evaluated the evidence on nonsurgical interventions for convergence insufficiency in 2011. (8) Six trials (3 in children, 3 in adults) with a total of 475 participants were included in the review, which searched the literature through October 2010. The 3 trials in children (described next) and 1 of the trials in adults were conducted by the multicenter Convergence Insufficiency Treatment Trial (CITT) study group. (The lead author of this Cochrane review is also the Principal Investigator of the 4 CITT trials.) Scheiman et al
concluded that current research suggests that outpatient vision therapy/orthoptics is more effective than home-based pencil push-ups or home-based computer vision therapy/orthoptics for children. In the adult population, evidence of the effectiveness of various nonsurgical interventions is less consistent. A number of gaps in current knowledge, including whether different therapy combinations or durations of therapy might be more effective, were identified.

**Randomized Controlled Trials**

In 2008, the CITT study group reported a randomized controlled trial (RCT) of 221 children (age range, 9-17 years) with symptomatic convergence insufficiency. (9) The children were randomly assigned to 1 of 4 treatment conditions: home-based pencil push-ups; home-based computer vergence/accommodative therapy and pencil push-ups; weekly office-based vergence/accommodative therapy with home exercises; or weekly office-based placebo exercises with home reinforcement of the placebo exercises. Symptoms were evaluated by the Convergence Insufficiency Symptom Survey (CISS), a 15-item survey with a final score ranging from 0 (least symptomatic) to 60 (most symptomatic). Scores of less than 16 were considered “asymptomatic” and a decrease of 10 or more points was considered “improved.” Near point convergence (NPC) and positive fusional vergency (PFV) were used as secondary outcomes. A “normal” NPC was defined as less than 6 cm and an “improved” NPC was defined as an improvement (decrease) in NPC of more than 4 cm from baseline to follow-up. To be classified as having “normal” PFV, a patient had to pass Sheard’s criteria (ie, PFV blur, or if no blur, then a break value at least twice the near phoria magnitude) and have a PFV blur/break of more than 15Δ. Improvement in PFV was defined as an increase of 10Δ or more from baseline to follow-up.

On blinded evaluation after 12 weeks of treatment (99% completion rate), 73% of patients treated with office-based therapy were considered to be successful or improved on the composite outcome of CISS, NPC, and PFV, as defined above, compared with 43%, 33%, and 35% of those treated with home pencil push-ups, home computer exercise, or placebo, respectively. For office-based orthoptic training, the average CISS score improved from 30 at baseline to 15 at the final assessment, which was significantly better than the other 3 groups. The group practicing pencil push-ups at home improved from an average CISS score of 28 to 21 at 12 weeks; similar scores were obtained for the home computer exercise group (from 32 to 25) and the office-based placebo group (from 30 to 22). At completion of the 12-week treatment programs, patients were classified as either asymptomatic (CISS score <16) or symptomatic (CISS score ≥16). Symptomatic patients were offered alternative treatment at no cost. Asymptomatic patients were assigned to home maintenance therapy for 15 minutes a week for the initial 6 months after treatment. At 1-year follow-up, 88% of the 32 children who were asymptomatic at the completion of the 12-week office-based treatment program remained successful or improved; 67% of the home-based pencil push-up group remained successful or improved. (10) A limitation of this RCT is that near-point exercises generally consisted of multiple therapies making it to correlate outcomes with specific modalities.

Following publication of the main results of the CITT trial, a number of reanalyses were performed. The effectiveness of these forms of vision therapy (pencil push-ups, home computer exercises, office-based vision therapy) in improving accommodative amplitude in 164 (74%) of the 221 children who had coexisting accommodative dysfunction with convergence insufficiency was reported by the CITT study group in 2011. (11) Of the 164 children with accommodative dysfunction, 63 (29%) had a decreased amplitude of accommodation, 43 (19%) had decreased accommodative facility (latency and speed of the accommodative response), and 58 (26%) had both. After 12 weeks of treatment, increases in amplitude of accommodation were significantly greater in the 3 active groups (range, 5.8-9.9 diopters) compared with office-based placebo therapy (2.2 diopters). The percentage of children who no longer showed decreased amplitude of accommodation was 91.4% for office-based therapy, 79.3% for home computer therapy, 74.1% for home pencil push-ups, and 35.7% for placebo treatment. Accommodative facility improved by 9.4 cycles per minute (cpm) for office-based therapy, 7.0 cpm for home computer-based therapy, 5.0 cpm for home pencil push-ups, and 5.5 cpm for office-based placebo therapy; only the office-based therapy showed significantly greater improvement than office-based placebo therapy. One year after completion of therapy, recurrence of decreased accommodative amplitude was found in 11% of 44 children and in 12.5% of 32 children who did not undergo subsequent treatment.

The effect of successful treatment for convergence insufficiency on parents’ perception of academic behavior in the 218 children who completed this study was also reported by the CITT group. (12) Participants were classified as successful (n=42), improved (n=60), or nonresponder (n=116) after 12 weeks of treatment. This study used the Academic Behavior Survey (ABS), a 6-item questionnaire (scoring range, 0-24 points) developed by the CITT study group to quantify parents’ perceptions of the frequency of adverse behaviors exhibited by children when reading or performing school work (5 questions) and overall parental concern about the child’s academic
performance (1 question). Mean ABS score at baseline was 12.85 points and improved by 4.0, 2.9, and 1.3 points in children classified as successful, improved, and nonresponder, respectively. The improvement in the ABS score correlated with reduction in symptom level (r=0.29), but not changes in measures of convergence. Although the ABS has not been validated outside of this study, the effect sizes in the successful and improved groups were 0.9 and 0.7, representing a clinically meaningful change.

In 2012, the CITIIT group reported a post hoc analysis of this RCT related to the effect of convergence insufficiency treatment on specific types of symptoms. (13) Outcomes were measures on the CISS, which is divided into 2 subscales: a performance-related subscale consisting of 6 symptoms related to visual efficiency when reading or performing near work (eg, loss of place with reading) and an eye-related subscale consisting of 9 symptoms specific to visual function or asthenopic-type complaints (eg eye pain). Each subscale was reported as an average of the items in its category (range, 0-4). Subjects were grouped into those with or without a “treatment response,” defined as an improvement of at least 8 points in their CISS score. At baseline, scores on the overall CISS score and the performance-related subscale were statistically significantly higher for children with parent-reported attention-deficit/hyperactivity disorder (ADHD) than for those without parent-reported ADHD (34.1 vs 29.5 for the overall CISS; 2.8 vs 2.2 for the performance related subscale). Those with a “treatment response” on the overall CISS score demonstrated improvements in both the performance-related subscale and the eye-related subscale (mean, 1.1 points). Further research is needed to determine whether the treatment-related improvement in performance-related symptoms seen with orthoptics training translates into improvements in reading performance and attention.

Two earlier RCTs from the CITIIT group addressed various vision therapies, not specifically office-based vergence training, for convergence insufficiency. A 2005 RCT with 72 children compared base-in prism glasses or placebo reading glasses for all reading and near tasks. (14) Base-in prism glasses were found to be no more effective in alleviating symptoms, improving NPC, or improving PFV at near than placebo reading glasses. Another RCT from the CITIIT group compared a 12-week program of home-based pencil push-ups with office-based vision therapy/orthoptics or office-based placebo therapy in 47 children. (15) Pencil push-ups, performed 15 minutes a day, 5 days a week, did not alleviate symptoms or signs associated with convergence insufficiency in this small study. Office-based vision therapy (sessions once a week for 12 weeks), supplemented by home exercises, was more effective than home-based pencil push-ups or office-based placebo therapy in reducing symptoms and improving signs of convergence insufficiency in children.

**Nonrandomized Comparative Studies**

Shin et al reported a nonrandomized comparative study of office-based vision therapy in 2011. (16) Fifty-seven children with symptomatic convergence insufficiency or combined convergence insufficiency and accommodative insufficiency, were divided into a treatment and a sham control group, matched by age and sex. Vision therapy was performed in the school clinic 2 times a week with instructions for home exercises to be performed for 15 to 25 minutes a day during the week. After 12 weeks of office-based vision therapy, the mean College of Optometrists in Vision Development—Quality of Life questionnaire score decreased from 27.07 to 10.40 and NPC improved from 8.67 to 3.20 in the children with convergence insufficiency. Mean PFV improved from 13.93 to 26.80. Sixty-seven percent of the children were considered to have been cured and 82% were improved. There were no significant changes between baseline and 12-week follow-up for the control group. Of the 20 children in the treatment group who completed a 1-year follow-up, 3 (15%) showed recurrence.

In 2011, Dusek et al reported a nonrandomized comparative study of 134 children with convergence insufficiency who had been referred to a tertiary care center in Austria for reading difficulties. (17) Thirty-two participants refused all treatment offered (control group); the remaining children were given base-in prism reading glasses (n=51) or computerized home vision therapy (n=51) based on preference. Parents were instructed to ensure that their child carried out the procedure correctly; compliance was verified weekly. All participants were examined for total reading time, reading error score, amplitude of accommodation, and binocular accommodative facility at baseline and after 4 weeks. Prismatic reading glasses were not worn during testing. Significant improvements were found in the prism glasses and computer exercise groups for total reading time, reading error score, amplitude of accommodation, binocular accommodative facility, and vergence facility. For example, reading speed improved by 21 seconds in the reading glasses group, by 12 seconds in the computer exercise group, and by 4 seconds in the control group. Mean amplitude of accommodation improved by 1.4 dipters in the reading glasses group, by 1.0 dipters in the computer exercise group, and by 0.3 dipters in the control group. The only significant improvement for the control group was vergence facility. Although this nonrandomized study had potential for selection and performance bias, the results suggest that base-in prism reading glasses may be an
Lee et al reported results from a small nonrandomized, controlled trial of vision therapy in children with vergence insufficiency and symptomatic ADHD. (18) Of 1123 children (age range, 8-13 years) who were screened for ADHD, 81 were identified as having symptomatic ADHD; of those, 16 were identified as having accommodative dysfunction on binocular function testing. Eight subjects received vision therapy, and the remainder acted as a control group; eligibility criteria for vision therapy included: high exophoria at near vision (≥6 Δ), exophoria at near vision at least 4 Δ greater than at distant vision, a receded near point of convergence break (≥6 cm), or insufficient PFV at near vision, failing Sheard’s criterion (PFV less than twice the near phorias), or minimum PFV 15 or less Δ base out blur or break. Vision therapy included progressive home- and office-based convergence and accommodative exercises over 12 weeks. At 12-week follow-up, intervention group subjects demonstrated improvements in near point of convergence (11.50 to 4.38 cm; p<0.05), break point of near PFV (11.88 to 32.38 cm; p<0.01), recovery point of near PFV (6.38 to 19.75 cm; p<0.01), and near exophoria (12.00 to 7.81 cm; p<0.05). ADHD symptoms, as measured by the parent-reported Korea-ADHD Rating Scale (K-ARS), improved from 23.25 at baseline to 17.13 (p<0.05) after vision therapy. Only within-group comparisons were reported. Control group subjects did not demonstrate improvements in vision metrics or K-ARS scores.

Noncomparative Studies

In 2013, Borsting et al published results from a single-arm multicenter study, the Convergence Insufficiency Treatment Trial—Reading Study. (19) Investigators evaluated parent-reported behavioral and emotional problems at baseline among children with symptomatic convergence insufficiency and changes in parent-reported behavioral and emotional problems after 16 weeks of office-based vergence accommodative therapy. The intervention was consistent with that administered in the CITT trial. Parent-reported ADHD symptoms were assessed with the Conners 3 ADHD Index (Conners 3AI) and behavioral and emotional symptoms with the 120-item Child Behavior Checklist. Of the 53 children enrolled, 48 consented to office-based therapy and 44 completed therapy and provided posttreatment data. After completion of therapy, there was a significant within-subject improvement in CISS scores and in Conners 3AI scores (d=0.58, significantly different from zero). Subjects also demonstrated statistically significant improvements in the Child Behavior Checklist competency-related subscale related to school performance but not to social- or activities-related performance. On Child Behavior Checklist’s symptom-related subscales, there were statistically significant improvements in the anxious/depressed, somatic complaints, and internalizing problems subscales. This study provided some evidence that ADHD-like and emotional and behavior problems may improve among children with symptomatic convergence insufficiency after office-based vision therapies. However, the study’s small size and lack of a control group preclude making definitive conclusions about the efficacy of this treatment.

Orthoptic Training for Learning Disabilities

Two studies, published in 2000 and 2001, focused on the use of tinted lenses and eye patching as a technique to steady binocular vision for dyslexia. Stein et al reported results of a randomized trial in which 143 dyslexic children were instructed to wear yellow-tinted glasses with or without the left lens occluded. (20) Children were instructed to wear the glasses whenever reading or writing. Significantly more children given occluded glasses gained stable binocular vision in the first 3 months compared with children given unoccluded glasses (59% vs 36%). Christenson et al, however, found no difference in reading ability in children with dyslexia and abnormal binocular vision who were tested with and without occluded, blue-tinted lenses. (21) A 2005 systematic review of the applicability and efficacy of eye exercises found that there was no clear scientific evidence to support the use of eye exercises for other disorders (eg, learning disabilities, dyslexia), except convergence insufficiency. (7)

In 2014, Ramsay et al reported results from a nonrandomized controlled trial of a computerized vergence training program in 13- to 14-year-old patients with dyslexia. (22) Twelve subjects with dyslexia were treated with the computerized vergence training program, receiving an average of 11.75 sessions over 5 weeks; 12 control students included were not treated. All subjects underwent vision testing and were not diagnosed with convergence insufficiency. The computerized training program involved the generation of a computerized stereogram, which appears in 3 dimensions with convergent vision. For the intervention groups, the reading speed improved from 87.83 words read per minute to 95.58 words read per minute from baseline to follow-up (p<0.006); reading speed was unchanged from baseline to follow up for the control group (85.00 words per minute at baseline to 89.37 words per minute at follow-up; p=0.123). Mean improvement in reading speed from baseline to follow-up did not differ significantly between groups (p=0.123).
Several studies have reported that poor reading in that dyslexia or attention deficits may be related to impairments in accommodation or convergence, suggesting the need for an ophthalmologic and orthoptic evaluation (23-25).

**Ongoing and Unpublished Clinical Trials**

Some currently 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>
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<tr>
<td>NCT02207517</td>
<td>Convergence Insufficiency Treatment Trial - Attention and Reading Trial (CITT-ART)</td>
<td>324</td>
<td>Apr 2019</td>
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<tr>
<td>Unpublished</td>
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<tr>
<td>NCT01515943</td>
<td>Effectiveness of Home-Based Therapy for Symptomatic Convergence Insufficiency</td>
<td>204</td>
<td>Jun 2015 (completed)</td>
</tr>
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NCT: national clinical trial.

**Summary of Evidence**

The evidence for use of office-based orthoptic training in individuals who have convergence insufficiency includes a TEC Assessment, 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 office-based vision/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. Subanalyses 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. The evidence is insufficient to determine the effects of the technology on health outcomes.

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**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 4 physician specialty societies (5 reviewers) and 3 academic medical centers while this policy was under review in 2010 to 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**

In August 2009, the American Academy of Pediatrics (AAP), American Academy of Ophthalmology (AAO), American Association for Pediatric Ophthalmology and Strabismus (AAPOS), and the American Association of
Certified Orthoptists (AACO) issued a joint policy statement on pediatric learning disabilities, dyslexia, and vision. (26) For vision therapy, the policy 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, AAP, AAO, AAPOS, and AACO also published a joint technical report on learning disabilities, dyslexia, and vision. (1) The 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.”

**U.S. Preventive Services Task Force Recommendations**
Not applicable

**Medicare National Coverage**
There is no national coverage determination (NCD). In the absence of an NCD, coverage decisions are left to the discretion of local Medicare carriers.

**References**


Appendix

N/A

History

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<th>Reason</th>
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<tr>
<td>03/31/15</td>
<td>Annual Review. Policy updated with literature review through December 3, 2014; references 22 and 25 added. Policy statements unchanged. ICD-9 and ICD-10 diagnosis and procedure codes removed; these are not utilized in policy adjudication.</td>
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<tr>
<td>05/10/16</td>
<td>Annual Review. Policy updated with literature review through January 29, 2016; no references added. Policy statements unchanged.</td>
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Français (French):

Kreyòl ayisyen (Creole):
Avi sila a gen enfòmasyon enpòtan ladan. Avi sila a kapab genyen enfòmasyon enpòtan konsénan aplikasyon w lan oswa konpòt konpòt a laf. Avis nan an la a fow epi di kapab genyen enfòmasyon enpòtan konsènan aplikasyon w lan oswa konpòt konpòt a laf. Adda karbenganyo a liye ak sa a hemen lan oswa konpòt konpòt a laf. Tej zaum a hemen lan oswa konpòt konpòt a laf. Avis nan an la a fow epi di kapab genyen enfòmasyon enpòtan konsènan aplikasyon w lan oswa konpòt konpòt a laf. Tej zaum a hemen lan oswa konpòt konpòt a laf. Avis nan an la a fow epi di kapab genyen enfòmasyon enpòtan konsènan aplikasyon w lan oswa konpòt konpòt a laf. Avis nan an la a fow epi di kapab genyen enfòmasyon enpòtan konsènan aplikasyon w lan oswa konpòt konpòt a laf. Avis nan an la a fow epi di kapab genyen enfòmasyon enpòtan konsènan aplikasyon w lan oswa konpòt konpòt a laf. Avis nan an la a fow epi di kapab genyen enfòmasyon enpòtan konsènan aplikasyon w lan oswa konpòt konpòt a laf. Avis nan an la a fow epi di kapab genyen enfòmasyon enpòtan konsènan aplikasyon w lan oswa konpòt konpòt a laf. Avis nan an la a fow epi di kapab genyen enfòmasyon enpòtan konsènan aplikasyon w lan oswa konpòt konpòt a laf. Avis nan an la a fow epi di kapab genyen enfòmasyon enpòtan konsènan aplikasyon w lan oswa konpòt konpòt a laf. Avis nan an la a fow epi di kapab genyen enfòmasyon enpòtan konsènan aplikasyon w lan oswa konpòt konpòt a laf. Avis nan an la a fow epi di kapab genyen enfòmasyon enpòtan konsènan aplikasyon w lan oswa konpòt konpòt a laf. Avis nan an la a fow epi di kapab genyen enfòmasyon enpòtan konsènan aplikasyon w lan oswa konpòt konpòt a laf. Avis nan an la a fow epi di kapab genyen enfòmasyon enpòtan konsènan aplikasyon w lan oswa konpòt konpòt a laf. Avis nan an la a fow epi di kapab genyen enfòmasyon enpòtan konsènan aplikasyon w lan oswa konpòt konpòt a laf. Avis nan an la a fow epi di kapab genyen enfòmasyon enpòtan konsènan aplikasyon w lan oswa konpòt konpòt a laf. Avis nan an la a fow epi di kapab genyen enfòmasyon enpòt

Deutsche (German):

Hmoob (Hmong):

Iloko (Ilocano):
Daytoy a Pakdaa ket naglaon iti Napateg nga Impormasion. Daytoy a pakdaa mabalini nga adda ket naglaon iti napateg nga impormasjon nipaayong ayon nga coverage babaen iti Premera Blue Cross. Daytoy ket mabalini dagiti importante a pelta iti daytoy a pakdaa. Mabalini nga adda rumba nga aramidade nga adda banggay dagiti parnikular iti naituding nga adda tlapu tapno mapataglaidneyo iti coverage iti salun-atyo ayon nga tulong kadaygiti gastos. Adda karbenganyo a mangala iti daytoy nga impormasjon ken tulong iti bukodyo a pagasaa nga awan nga bayadanyo. Tumawag ti numero nga 800-722-1471 (TTY: 800-842-5357).

Italiano (Italian):
この通知には重要な情報が含まれています。この通知では、Premera Blue Crossの申請および補助条件に関する重要な情報が含まれています。この通知には、記載されている情報が重要であることをご確認ください。健康保険や無料サポートを維持するには、特定の日付までに行動を取る必要があります。ご連絡先による情報とサポートが無料で提供されます。0800-722-1471 (TTY: 800-842-5357)までお電話ください。

한국어 (Korean):
본 통지서에는 중요한 정보가 들어 있습니다. 즉 이 통지서는 귀하의 신청에
관하여 그리고 Premera Blue Cross를 통해 커버지에 관한 정보를
포함하고 있습니다. 본 통지서에는 핵심이 되는 난이점이 있을 수
있습니다. 귀하의 귀하의 건강 커버지에 기재된 유지를거나 비용을 절약하기
위해 필요한 마감까지 조치를 취해야 할 필요가 있을 수 있습니다.
귀하의 이러한 정보와 도움은 귀하의 만족도 및 비용 부담없이 얻을 수 있는
권리가 있습니다. 800-722-1471 (TTY: 800-842-5357)로 전화하십시오。


Русский (Russian): Настоящее уведомление содержит важную информацию. Это уведомление может содержать важную информацию о вашем заявлении или страховом покрытии через Premera Blue Cross. В этом уведомлении могут быть указаны ключевые даты. Вам, возможно, потребуется принять меры к определенным предельным срокам для сохранения страхового покрытия или помощи с расходами. Вы имеете право на бесплатное получение этой информации и помощь на вашем языке. Звоните по телефону 800-722-1471 (TTY: 800-842-5357).

Español (Spanish): Este Aviso contiene información importante. Es posible que este aviso contenga información importante acerca de su solicitud o cobertura a través de Premera Blue Cross. Es posible que haya fechas clave en este aviso. Es posible que deba tomar alguna medida antes de determinadas fechas para mantener su cobertura médica o ayuda con los costos. Usted tiene derecho a recibir esta información y ayuda en su idioma sin costo alguno. Llame al 800-722-1471 (TTY: 800-842-5357).


ไทย (Thai): ประกาศนี้มีสาระสำคัญ ประกาศนี้มีสาระสำคัญเกี่ยวกับการขอรับหรือการเปลี่ยนแปลง
สิทธิการประกัน Premera Blue Cross และเป็นข้อมูลในการประกันสุขภาพที่คุณควรรู้.
ด้านการมีส่วนร่วมในกิจกรรมที่มีผลต่อความมั่นคงของคุณการประกันสุขภาพของคุณตามข้อตกลงที่
มีไว้ก่อน การสิทธิ์ที่ได้รับและข้อสัมพันธ์ในการประกันสุขภาพของคุณ เชิญทางโทร.
โทร. 800-722-1471 (TTY: 800-842-5357).

Український (Ukrainian): Це повідомлення містить важливу інформацію. Це повідомлення може містити важливу інформацію про Ваше звернення щодо страхувального покриття через Premera Blue Cross. Зверніть увагу на ключові дати, які можуть бути вказані у цьому повідомленні. Існує імовірність того, що Вам треба будь-де забезпечити певні короткі інформаційні строки для того, щоб зберегти Ваше медичне страхування або отримати фінансову допомогу. У Вас є право на отримання цієї інформації та допомоги безкоштовно на Вашій рідній мові. Дозвійте за номером телефону 800-722-1471 (TTY: 800-842-5357).