



Cigna Medical Coverage Policy

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Subject **Vision Therapy/Orthoptics**

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INSTRUCTIONS FOR USE

The following Coverage Policy applies to health benefit plans administered by Cigna companies. Coverage Policies are intended to provide guidance in interpreting certain **standard** Cigna benefit plans. Please note, the terms of a customer's particular benefit plan document [Group Service Agreement, Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a customer's benefit plan document **always supersedes** the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. In certain markets, delegated vendor guidelines may be used to support medical necessity and other coverage determinations. Proprietary information of Cigna. Copyright ©2013 Cigna

Coverage Policy

Eye exercises are specifically excluded under many benefit plans. In addition, many benefit plans specifically exclude behavioral training and services, training, educational therapy or other nonmedical ancillary services for learning disabilities, developmental delays, autism or mental retardation. Thus, vision therapy and orthoptics are excluded under many benefit plans.

Cigna does not cover vision therapy, optometric training, eye exercises or orthoptics because each of these is considered experimental, investigational or unproven for any indication including the management of visual disorders and learning disabilities.

General Background

"Vision therapy" is a term used by optometrists. Optometrists define vision therapy as an attempt to develop or improve visual skills and abilities; improve visual comfort, ease, and efficiency; and change visual processing or interpretation of visual information. An optometric vision therapy program consists of supervised in-office and at home reinforcement exercises performed over weeks to months. In addition to exercises, lenses ("training glasses"), prisms, filters, patches, electronic targets, or balance boards may be used. There are three main categories of vision therapy:

- Orthoptic vision therapy – eye exercises to improve binocular function
Orthoptic eye exercises are used by pediatric ophthalmologists and orthoptists, while optometrists call it orthoptic vision therapy. When pediatric ophthalmologists and orthoptists prescribe orthoptic eye exercises the exercises are taught in the office and carried out at home. Orthoptic vision therapy is proposed for Convergence Insufficiency and intermittent Exotropia.

- Behavioral/perceptual vision therapy – eye exercises to improve visual processing and visual perception
- Vision therapy for prevention or correction of myopia (nearsightedness)

Literature Review and Professional Societies/Organizations

Convergence Insufficiency: Convergence insufficiency occurs when eyes do not turn inward properly while focusing on a nearby object. When looking at a close object, eyes should converge — turn inward together to focus — so that they provide binocular vision and a single image. But with convergence insufficiency, an individual is unable to move their eyes inward to focus normally. It is usually diagnosed in school-age children and adolescents. Esotropia is a convergent misalignment of the visual axes. Convergence insufficiency is the most evaluated of the non-strabismic disorders and has been studied in RCTs and case series (Scheiman, et al., 2010; Aziz, et al., 2007; Scheiman, et al., 2005b). The Convergence Insufficiency Treatment Trial (CITT) Study Group conducted a multicenter randomized clinical trial (n=221) which compared home-based protocols to office-based treatments for symptomatic convergence insufficiency. At 12 weeks of follow-up, the office-based treatment was reported to result in a significantly greater improvement in symptoms and clinical measures of near point of convergence and positive fusional vergence compared to the other protocols (CITT Study Group, 2008). One year post-treatment, the participants (n=79) who were asymptomatic after a 12-week program of office-based treatment for convergence insufficiency maintained their improvements (CITT Study Group, 2009). Limited evidence in the medical literature and professional society guidance support the use of orthoptic therapy for the treatment of convergence insufficiency. The role of vision therapy in managing other non-strabismic binocular disorders has not been established. Available evidence exists primarily in the form of uncontrolled or poorly controlled studies with significant methodological flaws. Limitations of the available data include lack of long-term data, patient selection bias, failure to use controls, and retrospective design.

The American Academy of Pediatrics and American Academy of Ophthalmology Joint Statement on Learning disabilities, dyslexia, and vision (2009) states “Because they are difficult for the public to understand and for educators to treat, learning disabilities have spawned a wide variety of controversial and scientifically unsupported alternative treatments, including vision therapy. Scientific evidence of effectiveness should be the basis for treatment accommodations. Treatments that have inadequate scientific proof of efficacy should be discouraged. Ineffective, controversial methods of treatment such as vision therapy may give parents and teachers a false sense of security that a child's learning difficulties are being addressed, may waste family and/or school resources, and may delay proper instruction or remediation”. The American Academy of Ophthalmology Preferred Practice Pattern[®] on Esotropia and Exotropia states “There is no role for most types of vision training for children with esotropia”.

Amblyopia: Amblyopia is a unilateral or, less commonly, bilateral reduction of best-corrected visual acuity that occurs in the setting of an otherwise normal eye, or a structural abnormality involving the eye or visual pathway, with reduction in visual acuity that cannot be attributed only to the effect of the structural abnormality. Amblyopic eyes may also have deficits in contrast sensitivity and accommodation. Although not an eye exercise in the usual sense, amblyopia treatment does use non-invasive (except for the use of eye drops in some cases) treatment to the eyes for the purpose of improving performance. Traditionally, amblyopia has been treated by patching.

Shotton and Elliot (2008) conducted a Cochrane review (n=2 RCTs) of the evidence on interventions for strabismic amblyopia. The review included participants of any age diagnosed with strabismic amblyopia. The PEDIG (2005) study (n=64) found that supplementing occlusion therapy with near activities may produce a better visual outcome compared to non-near activities after four weeks of treatment. The RCT (n=180) by PEDIG (2006) reported that conventional part-time occlusion with any necessary glasses, was more beneficial than glasses alone for strabismic amblyopia. An RCT (n=419) by PEDIG 2002 found both atropine and occlusion therapy for the treatment of moderate amblyopia produced improvement of similar magnitude. Evidence supporting other vision therapy techniques as treatments for amblyopia has generally been of poor quality, with significant methodological flaws in the studies. Although several studies have been conducted, they used a wide variety of vision therapy interventions and approaches, making it difficult to compare outcomes across studies. Much of the evidence is in the form of case studies and small case series, often with patients who have failed occlusion therapy, a passive treatment. Because of the lack of well-designed and well-implemented studies, with the exception of eye patching, insufficient evidence exists in the published, peer-reviewed literature to support the use of vision therapy modalities for the treatment of amblyopia.

The American Academy of Ophthalmology Preferred Practice Pattern® for Amblyopia (2012) states “Other eye exercises or forms of vision therapy have been promoted for the treatment of amblyopia as an adjunct to patching. However, there are insufficient cohort studies or randomized clinical trials to make a recommendation to use these techniques”.

The American Association for Pediatric Ophthalmology and Strabismus and the American Academy of Ophthalmology Joint Policy Statement ‘Amblyopia is a Medical Condition’ (updated 2013) states “Optical correction, such as eyeglasses or contact lenses, may be medically indicated as a part of amblyopia treatment in addition to other modalities, such as patching and/or pharmacologic treatment. Unless amblyopia is treated during childhood, vision loss is likely to be irreversible”.

Strabismic Conditions: Strabismus occurs when one or both eyes turn in or out, up or down. The condition is caused by the brain's inability to coordinate both eyes simultaneously. The brain is the master control center of vision, and somewhere early in a child's vision development, the brain failed to develop "binocularity," or the ability to use both eyes at the same time. It is important that strabismus receive prompt treatment. Children do not outgrow crossed eyes, and the condition can worsen over time. Evidence evaluating the effectiveness of vision therapy for strabismic disorders exists primarily in the form of case studies and case series with few RCTs (Scheiman, et al., 2005). Limitations to the reported evidence include varied treatment approaches, small sample sizes, lack of control groups, lack of randomization, limited follow-up, patient selection bias, and lack of standardization of treatment and outcome measures. One large, multicenter clinical RCT (n=286) supported by the National Eye Institute (NEI) yielded evidence to suggest that the use of prism adaptation is appropriate prior to surgery as a treatment for acquired esotropia. The Prism Adaptation Study (PAS) (NEI, 1999) defined prism adaptation as the preoperative wearing of Fresnel prisms to offset the angle of esotropia, with adjustment of prism power over time to accommodate buildup to larger angles of esotropia until fusion is achieved or until it has been demonstrated that fusion cannot be attained. Insufficient evidence exists in the published, peer-reviewed literature to conclude that vision therapy is effective for the treatment of any of the strabismic disorders except preoperative prism adaptation for acquired esotropia.

Other: The AAO, in a complementary therapy assessment of visual training for refractive errors, stated: There is Level I evidence that visual training for control of accommodation has no effect on myopia. In most other studies (Level II/III evidence), an improvement in subjective visual acuity (VA) for patients with myopia who have undertaken visual training has been shown, but no corresponding physiological cause for the improvement has been demonstrated. In one non-randomized, non-blinded study, visual field training (VFT) did lead to improvements in visual field enlargement, reading speed, and color and shape perception in cases where a patient's cortical surface gain was sufficiently large (~6 mm), but the number of subjects in this study was very small (n=12).

The improvements in myopic patients noted in most studies have been postulated to be due to improvements in interpreting blurred images, changes in mood or motivation, creation of an artificial contact lens by tear film changes, or a pinhole effect from miosis of the pupil. It is not clear if patients purchasing these programs for use at home, outside of the controlled environment of a research study, will have any improvement in their vision. No evidence was found that visual training has any effect on the progression of myopia. No evidence was found that visual training improves visual function for patients with hyperopia or astigmatism. No evidence was found that visual training improves vision lost through disease processes, such as age-related macular degeneration, glaucoma, or diabetic retinopathy (AAO, August 2013).

Learning Disabilities: Learning disabilities, including reading disabilities, are commonly diagnosed in children. Their etiologies are multifactorial, reflecting genetic influences and dysfunction of brain systems. Learning disabilities are complex problems that require complex solutions. Early recognition and referral to qualified educational professionals for evidence-based evaluations and treatments seem necessary to achieve the best possible outcome. Most experts believe that dyslexia is a language-based disorder. Vision problems can interfere with the process of learning; however, vision problems are not the cause of primary dyslexia or learning disabilities (The American Academy of Pediatrics and American Academy of Ophthalmology, 2009)

A technology report from the American Academy of Pediatrics evaluated vision therapy literature that included systematic reviews (n=4 reviews; 1974–2005) and found “significant weaknesses, because most of the information has been of poor statistical and scientific quality.” The report summarized that the scientific evidence does not support visual training, muscle exercises, ocular pursuit-and-tracking exercises, behavioral/perceptual

vision therapy, training glasses, prisms, and colored lenses and filters as effective direct or indirect treatments for learning disabilities. "There is no valid evidence that children who participate in vision therapy are more responsive to educational instruction than children who do not participate" (Handler, et al., 2011).

A systematic review by Rawstron et al. (2005) analyzed the evidence evaluating the efficacy of eye exercises. It was found that small controlled trials and a large number of cases support the treatment of convergence insufficiency. Less robust evidence was found to indicate that visual training may be useful in developing fine stereoscopic skills and improving visual field remnants after brain damage. It was stated that there is no clear evidence in the published literature to support the use of eye exercises in a wide range of conditions including vergence problems, ocular motility disorders, accommodative dysfunction, amblyopia, learning disabilities, dyslexia, asthenopia, myopia, stereopsis, visual field defects and visual acuity. Therefore, the use of eye exercises in the treatment of these conditions remains controversial (Rawstron, et al., 2005).

There is a lack of consistent evidence in the published, peer-reviewed, scientific literature to support vision therapy, in the form of either orthoptic vision therapy or behavioral vision therapy, or through the use of colored overlays or lenses, for the treatment of any type of learning or reading disability. The available evidence does not support the conclusion that vision therapy improves reading comprehension.

The American Academy of Pediatrics and American Academy of Ophthalmology Joint Statement on Learning disabilities, dyslexia, and vision (2009) states "Because they are difficult for the public to understand and for educators to treat, learning disabilities have spawned a wide variety of controversial and scientifically unsupported alternative treatments, including vision therapy. Scientific evidence of effectiveness should be the basis for treatment accommodations. Treatments that have inadequate scientific proof of efficacy should be discouraged. Ineffective, controversial methods of treatment such as vision therapy may give parents and teachers a false sense of security that a child's learning difficulties are being addressed, may waste family and/or school resources, and may delay proper instruction or remediation".

Use Outside of the US

No relevant information found.

Summary

Insufficient evidence exists in the published, peer-reviewed, scientific literature to support the use of vision therapy, visual training, optometric training, behavioral vision therapy or orthoptics for any of the following conditions: non-strabismic disorders (e.g., convergence insufficiency, esotropia, amblyopia), strabismic conditions, refractive errors (e.g., myopia, hyperopia, astigmatism), vision lost through disease process (e.g., age-related macular degeneration, glaucoma, diabetic retinopathy) or learning disabilities including reading disabilities.

Coding/Billing Information

Note: 1) This list of codes may not be all-inclusive.

2) Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement

Experimental/Investigational/Unproven/Not Covered when used to report vision therapy, optometric training, eye exercises or orthoptics:

CPT* Codes	Description
92065	Orthoptic and/or pleoptic training, with continuing medical direction and evaluation
97110	Therapeutic procedure, 1 or more areas, each 15 minutes; therapeutic exercises to develop strength and endurance, range of motion and flexibility
97112	Therapeutic procedure, 1 or more areas, each 15 minutes; neuromuscular reeducation of movement, balance, coordination, kinesthetic sense, posture, and/or proprioception for sitting and/or standing activities
97140	Manual therapy techniques (eg, mobilization/ manipulation, manual lymphatic

	drainage, manual traction), 1 or more regions, each 15 minutes
97530	Therapeutic activities, direct (one-on-one) patient contact (use of dynamic activities to improve functional performance), each 15 minutes

***Current Procedural Terminology (CPT®) ©2012 American Medical Association: Chicago, IL.**

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