



College of Optometrists in Vision Development

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CONVERGENCE INSUFFICIENCY

ICD-9-CM: 378.83

DEFINITION:

A sensorimotor anomaly that affects the binocular visual system and is characterized by an inability to adequately converge or sustain convergence for visual tasks at near.

SIGNS AND SYMPTOMS:

The signs and symptoms associated with convergence insufficiency may include, but are not limited to, the following:

1. reduced efficiency and productivity/diminished accuracy/inconsistent work product
2. diminished performance with time on task
3. diplopia (ICD: 368.2)/tendency to close or cover one eye
4. transient blurred vision/illusory movement
5. pain in or around the eye (ICD: 379.91)
6. headaches (ICD: 784.0)
7. difficulty sustaining near visual function
8. avoidance of visually demanding tasks
9. inaccurate eye-hand coordination
10. loss of place, repetition, and/or omission of words and/or lines of print while reading
11. transpositions when copying from one source to another
12. abnormal postural adaptation/abnormal working distance (ICD: 781.9)
13. spatial disorientation
14. photophobia (ICD: 368.13)
15. inconsistent visual attention/concentration and/or awareness
16. general fatigue (ICD: 780.7)
17. dizziness/vertigo (ICD: 780.4); especially during/after sustained visually demanding tasks
18. motion sickness (ICD: 994.6)
19. incoordination/clumsiness (ICD: 781.3)
20. awareness of the need for volitional control of eyes
21. asthenopia (ICD: 368.13)

DIAGNOSTIC FACTORS:

Convergence insufficiency encompasses one or more of the following diagnostic findings:

1. higher than expected exophoria at near
2. low accommodative convergence/accommodation (AC/A) ratio
3. receded near point of convergence (NPC)
4. low positive fusional vergence ranges/ facility/ flexibility at near
5. exo fixation disparity/steep base-out component of forced vergence curve
6. asthenopia/vertigo/diplopia responses during/after nearpoint testing

THERAPEUTIC MANAGEMENT CONSIDERATIONS:

The doctor of optometry determines appropriate diagnostic and therapeutic modalities, and frequency of evaluation and follow-up, based on the urgency and nature of the patient's conditions and unique needs. Vision disorders that are not totally cured through vision therapy may still be ameliorated with significant improvement in visual function and quality of life. The management of the case and duration of treatment would be affected by:

1. the severity of symptoms and diagnostic factors, including onset and duration of the problem
2. the complications of associated visual conditions
3. implications of patient's general health, cognitive development, physical development, and effects of medications taken
4. etiological factors
5. extent of visual demands placed upon the individual
6. patient compliance and involvement in the prescribed therapy regimen
7. type, scope, and results of prior interventions
8. occupational/avocational goals

PRESCRIBED TREATMENT REGIMEN:

Some cases are successfully managed by the prescription of therapeutic lenses and/or prisms. Most convergence insufficiencies require optometric vision therapy/orthoptics, which incorporates the prescription of specific treatments in order to:

1. enhance fusional ranges, fusional stability, and vergence flexibility
2. enhance accommodative/convergence relationships
3. enhance near point of convergence
4. integrate binocular function with information processing
5. integrate binocular skills with accurate motor responses
6. integrate binocular skills with other sensory skills (vestibular, kinesthetic, tactile, and auditory)
7. increase visual stamina/integrate newly established skills with information processing

DURATION OF TREATMENT:

The following treatment ranges are provided as a guide. Treatment duration will depend upon the particular patient's condition and associated factors. When duration of treatment beyond these ranges is required, documentation of the medical necessity for additional treatment services may be warranted for third-party claims processing and review purposes.

1. The most commonly encountered convergence insufficiency usually requires 24 hours of office therapy.
2. Convergence insufficiency may require substantially more office therapy, if complicated by associated conditions such as cerebral vascular accident, head trauma, and/or other systemic conditions.

FOLLOW-UP CARE:

At the conclusion of the active treatment regimen, periodic follow-up evaluation is required. Should signs, symptoms, or other diagnostic factors recur, further therapy may be medically necessary. Therapeutic lenses may be prescribed during or at the conclusion of active vision therapy to assist in the maintenance of long-term stability.