CONVERGENCE INSUFFICIENCY
ICD-9-CM: 378.83

DEFINITION:
A sensory and neuromuscular anomaly of the binocular visual system characterized by an inability to adequately converge or sustain convergence.

SIGNS AND SYMPTOMS:
The symptoms and signs associated with convergence insufficiency are related to prolonged performance of visually demanding near-centered tasks. They may include, but are not limited to, the following:

- Transient blurred vision (ICD: 368.12)
- Frequent transpositions when copying from one source document to another
- Diminished accuracy with increased time on task
- Abnormal postural adaptation/abnormal working distance (ICD: 781.9)
- Inaccurate/inconsistent work product
- Reduced efficiency and productivity
- Photophobia
- Diplopia (ICD: 368.2)
- Asthenopia (ICD: 368.13)
- Orbital pain (ICD: 379.91)
- Headaches (ICD: 784.0)
- Inaccurate/inconsistent visual attention/concentration and/or awareness
- Increased distractibility
- Difficulty sustaining near visual function
- Abnormal general fatigue
- Dizziness/vertigo; especially during/after sustained visually-demanding tasks (ICD: 780.4780.4)
- Inaccurate eye-hand coordination

DIAGNOSTIC FACTORS:
Convergence insufficiency is characterized by one or more of the following diagnostic findings:

- High exophoria at near
- Tight accommodative convergence (AC/A) ratio
- Receded near point of convergence
- Low adductive fusional ranges
- Low fusional vergence facility/flexibility
- Exo fixation disparity with steep forced vergence slope

Additional testing may be appropriate as part of the differential diagnostic workup for convergence insufficiency in order to rule out or define other concurrent medical conditions and to differentiate associated visual conditions.

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. The management of the case and duration of treatment would be affected by:

- The severity of symptoms and diagnostic factors including onset and duration of the problem
- The implications of associated visual conditions
- Implications of patient's general health and effects of medications taken
- Etiological factors
- Extent of visual demands placed upon the individual
CONVERGENCE INSUFFICIENCY (CONT'D.)

- Patient compliance and involvement in the prescribed therapy regimen
- Type, scope, and results of prior interventions

PRESCRIBED TREATMENT REGIMEN:
A percentage of cases are successfully managed solely by the prescription of therapeutic lenses and/or prisms. Most convergence insufficiencies, however, require orthoptics/vision therapy. Optometric vision therapy for convergence insufficiency usually incorporates the prescription of specific treatments in order to:

- Normalize associated deficiencies in ocular motor control
- Eliminate suppression
- Normalize fusional vergence ranges
- Normalize fusional vergence facility and flexibility
- Normalize fusional vergence stability
- Normalize accommodative/convergence relationships
- Normalize depth judgments and/or stereopsis
- Integrate binocular function with information processing
- Normalize near point of convergence
- Normalize near point adductive vergence ranges
- Integrate ocular motor skills with accurate motor responses
- Integrate ocular motor skills with other sensory skills (vestibular, kinesthetic, tactile, and auditory)

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

- The most commonly encountered convergence insufficiency usually requires 24 to 32 hours of office therapy.
- Uncomplicated convergence insufficiency characterized only by remote near point of convergence usually requires 12 hours of office therapy.
- convergence insufficiency complicated by:
  - suppression: up to an additional 8 hours of office therapy
  - diminished stereopsis: up to an additional 8 hours of office therapy
  - other diagnosed visual anomalies: may require additional office therapy
  - associated conditions such as stroke, head trauma, and/or other systemic conditions: may require substantially more office therapy

FOLLOW-UP CARE:
At the conclusion of the active treatment regimen, periodic follow-up evaluation should be provided at appropriate intervals. Therapeutic lenses may be prescribed during or at the conclusion of active vision therapy for the maintenance of long-term stability.