CONVERGENCE EXCESS
ICD-9-CM: 378.84

DEFINITION:
A sensory and neuromuscular anomaly of the binocular visual system characterized by an overconvergence tendency at near.

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

- Transient blurred vision (ICD: 368.12)
- Difficulty visually tracking and/or following objects
- Loss of place, repetition, and/or omission of words and/or lines of print while reading
- Need to utilize a marker to avoid loss of place
- 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)
- Eye turn, deviation
- Visual field neglect
- 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)
- Motion sickness (ICD: 994.6)

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

- Esophoria at near
- Near esophoria greater than distance esophoria
- High accommodative convergence/accommodation (AC/A) ratio
- Restricted abductive vergence ranges
- Adductive vergence ranges significantly exceed abductive vergence ranges
- Low fusional vergence facility and/or flexibility
- Near point eso fixation disparity with steep forced vergence slope

Additional testing may be appropriate as part of the differential diagnostic workup for convergence excess 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
- Patient compliance and involvement in the prescribed therapy regimen
CONVERGENCE EXCESS (CONT'D.)

PRESCRIBED TREATMENT REGIMEN:
A percentage of cases are successfully managed solely by the prescription of therapeutic lenses and/or prisms. Most convergence excess, however, require orthoptics/vision therapy. Optometric vision therapy for convergence excess 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
- Reduce or eliminate near-point esophoria
- Normalize near-point abductive 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 excess usually requires 30 to 38 hours of office therapy.
- Uncomplicated convergence excess requires 25 hours of office therapy.
- convergence excess 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.