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## **College of Optometrists in Vision Development**

**215 W. Garfield Road, Suite 210, Aurora, OH 44202**

**Voice: (330) 995-0718 or (888) 268-3770 | Fax: (330) 995-0719**

**Website: [www.covd.org](http://www.covd.org)**

### **INTERMITTENT ESOTROPIA**

**ICD-9-CM: 378.21**

#### **DEFINITION:**

A sensorimotor anomaly of the binocular vision system in which the foveal line of sight of one eye periodically deviates inward and fails to intersect the object of fixation.

#### **SIGNS AND SYMPTOMS:**

The signs and symptoms with intermittent esotropia 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. inaccurate/inconsistent depth judgment
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. eye turn, deviation (ICD:378.9)
11. avoids eye contact
12. transient blurred vision/illusory movement
13. difficulty visually tracking &/or following objects
14. loss of place, repetition &/or omission of words &/or lines of print while reading
15. transpositions when copying from one source to another
16. abnormal postural adaptation/abnormal working distance (ICD: 781.9)
17. spatial disorientation
18. inconsistent visual attention/concentration and/or awareness
19. general fatigue (ICD: 780.7)
20. dizziness/vertigo (ICD: 780.4); especially during/after sustained visually demanding tasks
21. motion sickness (ICD: 994.6)
22. incoordination/clumsiness (ICD: 781.3)
23. awareness of the need for volitional control of eyes
24. asthenopia (ICD: 368.13)

#### **DIAGNOSTIC FACTORS:**

Intermittent esotropia is characterized by one or more of the following diagnostic findings:

1. intermittent strabismus
2. delayed re-establishment of binocular fusion from a dissociated state
3. excessively low negative fusional vergence ranges/recoveries
4. diplopia (ICD: 368.2) reported under binocular testing
5. shallow amblyopia/reduced stereopsis

### 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:

The goal of the prescribed treatment regimen is to address the diagnostic factors and alleviate the presenting signs and symptoms associated with the diagnosed condition. Some cases are successfully managed by the prescription of therapeutic lenses and/or prisms. Most intermittent esotropias require optometric vision therapy/orthoptics, which incorporates the prescription of specific treatments in order to:

1. enhance fusional vergence ranges, stability, and flexibility
2. enhance accommodative/convergence relationships
3. reduce esophoria/esotropia
4. enhance depth judgments and/or stereopsis
5. integrate binocular function with information processing
6. integrate binocular skills with accurate motor responses
7. integrate binocular skills with other sensory skills (vestibular, kinesthetic, tactile, and auditory)
8. 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 intermittent esotropia usually requires 40 hours of office therapy.
2. Intermittent esotropia may require substantially more office therapy, if complicated by associated factors such as prior eye muscle surgery, cerebral vascular accident, head trauma, and/or 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.