COLLEGE OF OPTOMETRISTS IN VISION DEVELOPMENT
PREVENTION • ENHANCEMENT • REHABILITATION

215 West Garfield Road, Suite 200
Aurora, OH 44202

PH: 330 995 0718
FX: 330 995 0719
Website: www.covd.org

DEPRIVATION AMBLYOPIA
ICD-9-CM: 368.02

DEFINITION:

Deprivation amblyopia is characterized by a decrease in visual acuity and deficient performance of the visual system attributed to a disruption in the normal image forming ability of the eye at an early age.

SIGNS AND SYMPTOMS:

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

1. inaccurate/inconsistent depth judgment
2. inaccurate eye-hand coordination
3. abnormal postural adaptation/abnormal working distance (ICD: 781.9)
4. reduced efficiency and productivity/inconsistent work product
5. difficulty visually tracking and/or following objects
6. loss of place, repetition and/or omission of words and/or lines of print while reading
7. diminished performance with increased time on task
8. spatial disorientation/incoordination/clumsiness (ICD: 781.3)
9. distractibility while performing visually demanding tasks
10. inconsistent visual attention/concentration and/or awareness
11. difficulty sustaining near visual function
12. general fatigue (ICD: 780.7)/ avoidance of visually demanding tasks

DIAGNOSTIC FACTORS:

Deprivation amblyopia is characterized by one or more of the following diagnostic findings:

1. presence or history of form deprivation factors including, but not limited to: cataracts, ptosis, persistent hyperplastic primary vitreous, corneal leukoma, nystagmus, and occlusion
2. reduced monocular or binocular visual acuity/eccentric/unsteady foveal fixation
3. poor monocular performance skills such as oculomotor skills, spatial judgments, accommodation, sensitivity to crowding

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. Most cases of deprivation amblyopia require optometric vision therapy, which incorporates the prescription of specific treatments in order to:

1. address retinal image quality
2. normalize fixation accuracy, ocular motor control, accommodation (accuracy, amplitude, and facility)
3. enhance Just Noticeable Difference (JND), spatial resolution, spatial judgments, and visual information processing
4. address asymmetry of performance

DURATION OF TREATMENT:

The following treatment ranges are provided as a guide. Treatment duration depends 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 for third-party claims processing and review purposes.

1. Full treatment requires resolution of the associated visual conditions.
2. The most commonly encountered deprivation amblyopia case which is not complicated by a strabismus usually requires 30 hours of office therapy.
3. Deprivation amblyopia may require substantially more office therapy, if complicated by associated factors such as 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.

This fact sheet was produced by the College of Optometrists in Vision Development (COVD) Clinical Standards Committee. COVD certifies professional competency in vision therapy, serves as an informational and educational resource, and advances research and clinical care in vision development and therapy. For additional information, see our website, www.covd.org.