

Amblyopia

FAST FACTS

~1–5%

Prevalence of amblyopia worldwide

age 8

Children may have permanent vision loss if amblyopia isn't treated by age 8

WHEN TO REFER

Refer to a pediatric ophthalmologist or optometrist for a full dilated exam if any red flags are present.

Parents can call Cincinnati Children's Pediatric Ophthalmology at **513-636-4751** to schedule an eye exam with an ophthalmologist or optometrist. Physicians may call this number with non-urgent questions.

Amblyopia is decreased vision in one or both eyes due to abnormal visual development during infancy or childhood. In amblyopia, there may not be an obvious problem of the eye. Vision loss occurs because nerve pathways between the brain and eye aren't properly stimulated. The brain "learns" to see only blurry images with the amblyopic eye, even when glasses are used.

Amblyopia is the leading cause of vision loss in children. The two most common types of amblyopia are refractive (due to need for glasses) and strabismic (due to eye crossing or drifting). Other causes of amblyopia include deprivation from lack of visual stimuli due to conditions such as cataract or ptosis (when the upper eyelid droops over the eye).

ASSESSMENT

Obtain accurate history of vision-related problems, including cover test. Perform annual vision screenings, evaluating eye, pupil, red reflex and motility. Additionally:

- At 12 months to 3 years, perform instrument-based screening (e.g., photoscreening). Continue annually until patient can participate in recognition visual acuity testing.
- At 3 to 4 years, perform recognition visual acuity testing instead. By this age, children typically can participate in visual acuity testing with age-appropriate shapes and symbols (optotypes). Use an adhesive monocular patch for testing. If the child is already wearing glasses, glasses should be worn for testing.

Consider performing instrument-based screening up to 6 years when cooperation is limited.

HISTORY AND PHYSICAL EXAM RED FLAGS

- Abnormal head posture (torticollis) including tilting, turning or chin up/down
- Failed vision screening
- Family history of amblyopia or strabismus
- Parents report child:
 - Experiences eye crossing or drifting
 - Frequently closes or covers one eye
 - Has issues with depth perception (i.e., child bumps into things often or has difficulty catching a ball or navigating familiar spaces)
 - Ptosis obstructing or obscuring the pupil

MANAGEMENT/TREATMENT

Amblyopia requires specialized care from a pediatric ophthalmologist or optometrist.

For urgent issues or to speak with a pediatric ophthalmologist on call 24/7, call the Physician Priority Link® at 1-888-987-7997.

If you would like additional copies of this tool, or would like more information, please contact the Physician Outreach and Engagement team at Cincinnati Children's.

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