

Astigmatism

FAST FACTS

10%

of preschool age children have astigmatism

Astigmatism is most prevalent among Hispanic children.

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.

PCP should consider calling a pediatric ophthalmologist if any of the following conditions are present:

- Abnormal red reflex
- Acute strabismus/ptosis
- New-onset pupillary abnormalities
- Papilledema

Astigmatism occurs when the cornea or the lens is curved more in one direction than the other. In astigmatism, the shape of the eye resembles an American football rather than a baseball. Rays of light coming from objects focus at different points in front and/or behind the retina instead of at one point. This blurs far away and up-close vision.

ASSESSMENT

Obtain accurate history of vision-related problems. 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 RISK FACTORS

- Failed vision screening
- Symptoms of astigmatism:
 - Decreased vision at distance and/or near
 - Frequent eye rubbing
 - Patient, parents or teachers report frequent squinting to see better
- Child has a connective tissue disorder such as Marfan, Stickler, Ehlers-Danlos or Weill-Marchesani syndrome
- Family history of:
 - Astigmatism or glasses wear
 - Keratoconus

MANAGEMENT/TREATMENT

Astigmatism requires specialized care from a pediatric ophthalmologist or optometrist. Treatment can vary from observation to correction of refractive error with glasses to prevent amblyopia or strabismus.

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.

Astigmatism

