

8 Children Vision Disorders

1 Amblyopia

Amblyopia is also known as lazy eye. It is the reduced vision in one eye as a result of the misalignment of the eyes (strabismus), a need for glasses (refractive error), or disruption of light passing through the eye (e.g. pediatric cataract). If recognized early enough (preschool years), amblyopia generally responds well to treatment. If recognized later (after the age of 9 or 10), amblyopia is much more difficult to treat and the child may have permanent vision loss. Signs to watch for include misaligned eyes, squinting one eye, bumping into objects or other signs of poor depth perception, head tilting, and double vision. Amblyopia therapy can include glasses, patching, eye drops, and sometimes surgery.

2 Astigmatism

Astigmatism is a condition in which objects at both distance and near appear blurred. This results from uneven curvature of the cornea and/or lens which prevents light rays entering the eye from focusing to a single point on the retina, thereby causing blur. Astigmatism often occurs with myopia (nearsightedness) or hyperopia (farsightedness).

3 Childhood Tearing

Epiphora is the term for excessive tearing. Childhood epiphora is often noted soon after birth, but can be acquired later. When noted during infancy, it is usually due to blockage of the tear drainage system. This type of tearing often improves spontaneously by 6-12 months of age. Medical treatment includes tear sac massage and eye drops, but if tearing persists, surgical probing of the drainage system may be required. Other rare causes of childhood tearing include pediatric glaucoma and ocular surface disease.

4 Pediatric Cataract

A cataract is a cloudiness or opacification of the normally clear lens of the eye. Depending on the size and location, the cataract can interfere with light passing to the retina and cause blurred vision. Cataracts are typically associated with older adults, but cataracts can occur at birth or during childhood. Early detection and treatment of cataracts are critical in infants and young children in order to restore normal visual development. A white area in the pupil and misalignment of the eye can be a sign of cataract. Pediatric cataracts that significantly obstruct vision require surgery. Patients subsequently require treatment with eyeglasses, bifocals, or contact lenses, and eye-patching. Often, pediatric cataracts result in some degree of lazy eye (amblyopia).

5 Pediatric Glaucoma

Glaucoma is a condition that is associated with high pressure within the eye. This pressure can damage the optic nerve, which is critical for vision, resulting in permanent vision loss. Pediatric glaucoma is a rare condition that can present in the newborn or during childhood. Signs and symptoms of pediatric glaucoma include cloudy cornea, tearing, frequent blinking, light sensitivity, and redness of the eye.

6 Pediatric Ptosis (drooping eyelid)

Ptosis, or drooping of the upper eyelid, occurs in both children and adults. Children can be born with ptosis (congenital) or acquire it during childhood. It is caused by weakness in the muscle that elevates the eyelid. A droopy eyelid can block light passing to the retina in the back of the eye and/or create significant astigmatism that produces a blurry image in the affected eye. These situations cause lazy eye (amblyopia) and, if untreated, can result in permanent loss of vision. Also, children may develop a chin-up head position due to the droopy eyelid. If the ptosis is significant, surgical correction may be necessary.

7 Retinopathy of Prematurity (ROP)

Retinopathy of prematurity (ROP) is an eye disease that occurs in some premature infants. It results from abnormal development of the blood vessels in the retina. ROP is progressive, starting with mild changes and sometimes progressing to severe, sight threatening changes. Most infants with ROP improve spontaneously, but some develop severe changes that require treatment with a laser. Complications of ROP can include strabismus (eye misalignment), myopia (nearsightedness), cataract, and, in severe cases, blindness from retinal detachment. Premature infants at risk of ROP are identified in the hospital and enrolled in a routine screening protocol.

8 Strabismus

Strabismus is the term for misalignment of the eyes. An eye may be turned inward (esotropia), outward (exotropia), upward (hypertropia), or downward (hypotropia). The misalignment may be constant or intermittent. Strabismus can occur in the newborn, during childhood, or in adulthood. Strabismus in children can result in lazy eye (amblyopia) and cause permanent loss of vision if treatment is delayed. Adults often experience double vision (diplopia). Depending on the type and cause of the strabismus, treatment may include eyeglasses, prisms, surgery, Botox injection, and eye-patching therapy.

