

## List of Common Eye Conditions in Children

**Amblyopia:** Amblyopia, also known as lazy eye, is reduced vision in an eye that results from 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 (preschool years), amblyopia generally responds well to treatment. If recognized later (after 9-10 years of age), amblyopia is much more difficult to treat and the child may have permanent vision loss. Signs and symptoms 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.

**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).

**Cataract:** Any opacity or clouding of the normally clear lens of the eye.

**Cortical Visual Impairment:** Cortical visual impairment (CVI) is vision loss due to any abnormality of the visual center in the brain. The eyes are normal, but the visual interpretation center in the brain does not function properly and prevents normal vision.

**Developmental Abnormalities:** During development of the fetus, abnormalities in the visual system can occur. Some developmental abnormalities include coloboma, microphthalmia (small eye), and optic nerve hypoplasia. These abnormalities often result in vision loss.

**Genetic Eye Disease:** Many eye diseases have a known genetic abnormality. These diseases are often inherited and frequently there are other family members who have had the disease. In cases of known inherited eye disease in the family, early evaluation is important.

**Glaucoma:** A disease resulting in damage to the optic nerve. Elevated eye pressure is the most common risk factor.

**Hyperopia (farsightedness):** Hyperopia, or farsightedness, is a condition where a person can see distant objects more clearly than near objects. Typically the farsighted eye is smaller than normal. As a result, light rays do not focus properly on the retina at the back of the eye and causes blur. Hyperopia can be inherited. Infants and young children are typically somewhat farsighted, but this lessens as the eye grows. Some children can have higher amounts of hyperopia which can cause a constant blurry image in one or both eyes and prevent normal visual development (amblyopia). If not recognized early, this can result in permanent visual loss. Also, higher than normal amounts of hyperopia in children can cause inward crossing of the eyes (typically between 2 – 7 years of age) and treatment with eyeglasses can correct the eye misalignment (strabismus).

**Myopia (nearsightedness):** Myopia, or nearsightedness, is a condition where a person can see near objects more clearly than distant objects. A myopic eye causes light from distant objects to be focused before they reach the retina and results in blurred vision for distant objects. Excessive myopia in children can result in lazy eye (amblyopia). Holding objects very close and squinting may indicate significant myopia.

**Nystagmus:** Nystagmus is an involuntary, rhythmic oscillation of the eyes. The eye movements can be side-to-side, up and down, or rotary. Nystagmus may be present at birth or acquired later in life. It may result from abnormal binocular fixation early in life. It also may accompany a number of eye disorders and neurological disorders.

**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).

**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.

**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.

**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.

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