

Signs of Eye and Visual Problems in Children

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Fortunately, most children are born with healthy eyes and develop normal vision as they grow up. However, eye and visual disorders do occur in children. A child may be born with an eye disease (congenital) or the eye disorder may develop later in life (acquired). Some of these disorders are very significant and can result in blindness, serious illness, or death, if not detected and treated early. It is important for parents to recognize the signs of eye and visual problems in children, since early detection often influences outcome.

It is important to remember that children may not complain of serious eye problems. A number of factors make the identification of eye and visual disorders in children quite challenging. Before learning to speak, young children are unable to describe their problem. Most children complain or show changes in personality, appetite or sleep patterns when they are uncomfortable. However, if there is no pain, there may be no complaints. In fact, children rarely complain of poor vision when it affects only one eye, as long as there is no discomfort. In addition, they often do not complain of visual loss even when it affects both eyes, as long as it is gradual and painless.

Newborns have poor vision compared with adults. This immaturity includes the ability to control the movement and alignment of their eyes as well as color perception, 3-D vision, and visual acuity. Visual acuity refers to the ability to see detail, such as identification of letters when reading books, computer screens, or road signs. Special laboratory tests indicate that children's visual acuity approaches adult levels at approximately 3 years of age.

Although children's visual acuity approaches adult levels by about 3 years of age, the period of visual development actually extends through roughly the first decade of life. During this period, there is a carefully timed and precise sequence of developmental events. It is particularly important for this developmental process to proceed smoothly. Problems that affect early stages of visual development frequently have very significant impact on later stages.

During the period of visual development, there is competition between the right and left eye. As a result, eye and vision abnormalities during the first decade of life have the potential to affect development of the visual portion of the brain. This is particularly important with respect to a common childhood condition known as amblyopia or "lazy eye." Early identification of eye and vision problems and proper treatment are essential for normal visual development to occur.

Factors increasing the likelihood of eye and visual problems in children:

- Family history of eye disorders affecting children
- Strong glasses in parents or siblings
- Prematurity
- Problems at delivery
- Cerebral palsy
- Developmental delay
- Other neurologic disorders
- Use of certain medications known to have ocular side effects
- History of trauma to the head or region around the eyes

Signs of potential eye and vision problems in infants and children:

- Poor visual tracking during infancy
- Misalignment or deviation of eyes (eyes that turn in, out, up or down)
- One eye intermittently wandering off center
- Unusual movement of the eyes (to-and-fro or dancing movement of the eyes, known as nystagmus)
- Turning or tilting the head to see (torticollis)
- Habitual squinting
- Closing one eye and focusing only with the other eye
- Partial or complete eyelid closure of one or both eyes
- Unusual sensitivity to light or an increase in sensitivity to light
- Closure of one or both eyes in sunlight (particularly if this represents a change)
- Unequal shape or size of the pupils (black center in the colored part of the eye)
- Difference in size or color of the iris (colored part of eye)
- Flash photographs that show a difference in the color or brightness of the red glow from the pupil (asymmetric red reflex)
- Cloudiness affecting in the clear window into the eye (cornea)
- Headaches
- Double vision
- Blurred vision
- Problems seeing at night
- Child complains when either the right or left eye is covered
- Rubbing one or both eyes
- Redness in or around the eyes
- Swelling in or around the eyes
- Bulging of one or both eyes
- Tearing or discharge from one or both eyes
- Injury to either eye for near the eyes

If any of these abnormalities are noted, it is very important to notify your child's pediatrician immediately. The pediatrician should examine the child or may refer the child to an eye specialist.

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