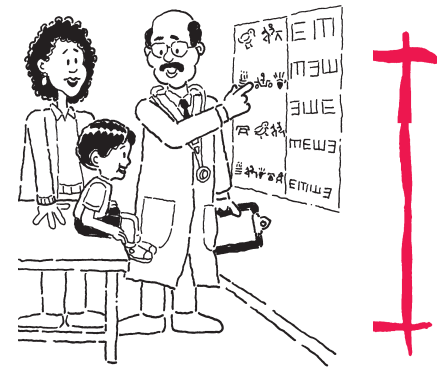


Your Child's Eyes

Part I Visual Development and Warning Signs



The American Academy of Pediatrics has developed this information to emphasize the importance of regular eye examinations in infancy and childhood. The information below describes the normal function and development of an infant's eye and vision. It gives an overview of warning signs and other problems that should be evaluated by your pediatrician or ophthalmologist. Regular eye exams at proper age intervals are the key to maintaining your child's healthy vision. The earlier the visual problems are detected, the better the outcome.

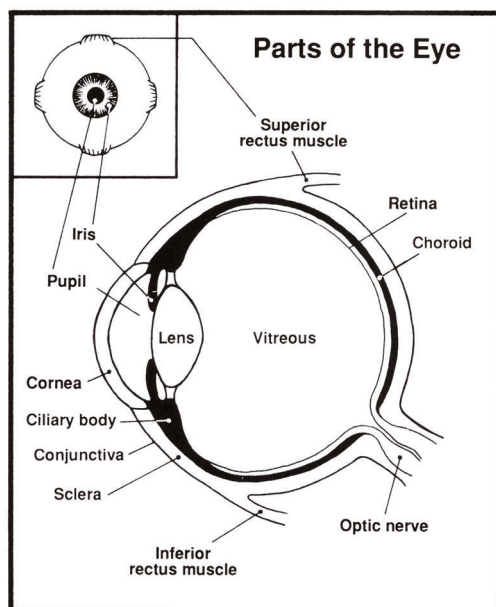
Visual development

At birth, babies have not yet attained normal adult vision—but they can see. Newborns can make out large shapes and faces but are unable to distinguish fine details. Faces have strong visual appeal. Because the visual system is immature, your baby probably cannot distinguish between pastel colors or subtle variations in shading, but can see bright, strong colors in contrasting patterns of light and dark.

Your baby's visual development is very dramatic during the first year of life. Vision usually develops rapidly so that by the age of 3 to 4 months, most infants can see small objects. Some babies can distinguish between various colors (especially red and green) by this time.

They can focus clearly on close and distant objects and can distinguish a real human face from one that is drawn.

By 4 months, the baby's eyes should be well aligned (work together) to give the perception of depth or binocular vision. By 12 months, a child's vision reaches normal adult levels. Vision does not develop exactly on the same schedule in all infants, but the overall pattern of development is the same. Because visual development is so rapid during the first year, early detection of visual problems is critical so that permanent visual impairment does not occur.



Warning signs that may indicate a problem

(Infants up to 1 year of age)

If your baby can't make steady eye contact by 2 or 3 months of age, or seems unable to see, you should consult your pediatrician. A constant crossing of the eyes or one eye that turns out is usually abnormal; however, most babies do occasionally cross their eyes during their first 6 months of life. Babies older than 3 months of age can usually follow or "track" an object with their eyes as it moves across their field of vision. You can test this by holding a colored object, like a toy or a ball, in front of your baby until he or she can see it. Then, slowly move the object and watch as your baby's eyes follow. Be careful to avoid clues aided by voices or other sounds.

Warning signs for your preschool child

The presence of any of the following requires immediate consultation with your pediatrician or ophthalmologist. If the eyes become misaligned (strabismus), the child should be evaluated immediately. This may be a situation that is easily corrected with glasses or it may represent a more serious eye disorder. The presence of a white pupil suggests a number of eye disorders ranging from a cataract to a tumor of the eye. Immediate evaluation is indicated. The sudden development of pain and redness in one eye or both eyes can represent a number of different conditions ranging from simple pink eye to blinding eye problems. If this occurs, a simple visit to your pediatrician will generally result in the correct diagnosis and proper treatment.

Warning signs at any age

No matter how old your child is, if you spot any one of the following, consult your pediatrician:

- Your child's eyes flutter quickly from side-to-side or up-and-down (nystagmus).
- The eyes are always watery.
- The eyes are always sensitive to light.
- Any change in the eyes from their usual appearance.
- You see white, grayish-white, or yellow-colored material in the pupil.
- There is redness in either eye that doesn't go away in several days.
- There is continued pus or crust in either eye.
- The eyes look crossed, turn out, or don't focus together (strabismus).
- Your child often rubs the eye(s).
- Your child often squints.
- Your child often tilts (or turns) his or her head.
- The eyelid(s) appears to droop.
- The eye(s) appears to bulge.

Vision screening information

Vision screening is a very important factor in identifying vision-threatening conditions. The American Academy of Ophthalmology and the American Academy of Pediatrics recommend that children be screened in four stages:

- 1. In the newborn nursery:** Pediatricians and ophthalmic practitioners should examine all infants prior to their discharge from the nursery to check for infections and structural defects, cataracts, or glaucoma. All children with multiple medical problems or with a history of prematurity and/or oxygen exposure should be examined by an ophthalmologist.
- 2. By the age of 6 months:** Pediatricians should screen infants at the time of their well-baby visits to check for alignment (eyes working together).
- 3. At the age of 3 to 4 years:** All children should be examined by a pediatrician. At this age, the visual acuity is checked and the eyes are examined for any other abnormality that may cause a problem with the child's educational development. Any abnormality requires referral to an ophthalmologist.
- 4. At the age of 5 years and older:** Pediatricians should screen children annually if this is not provided by school personnel or volunteer organizations. Visual acuity is tested as well as evaluation of other ocular functions.

Learning disabilities

Learning disabilities are quite common in childhood years and have many causes. The eyes are often suspected but are almost never the cause of learning problems. Your pediatrician may refer you for an evaluation by an educational specialist to pinpoint the exact cause.

When should your child's eyes be checked?

Pediatricians check the eyes shortly after birth as part of the newborn examination. Your baby's eyes also will be examined later during health supervision visits. The doctor looks for eye disease and checks to see if the eyes are functioning properly. Children with a family history of serious vision problems are more likely to have eye problems.

Fortunately, most babies have normal, healthy eyes. When problems occur, early detection and treatment make it more likely that the child's vision will develop normally. If your pediatrician detects problems, he or she may refer your child to an ophthalmologist for further evaluation and care.

Vision care is an important part of preventive health care for children. The American Academy of Pediatrics is dedicated to working for a better future for your children. Join us by making sure your children receive regular eye examinations.

The information contained in this publication should not be used as a substitute for the medical care and advice of your pediatrician. There may be variations in treatment that your pediatrician may recommend based on individual facts and circumstances.

From your doctor

American Academy
of Pediatrics



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The American Academy of Pediatrics is an organization of 57,000 primary care pediatricians, pediatric medical subspecialists, and pediatric surgical specialists dedicated to the health, safety, and well-being of infants, children, adolescents, and young adults.

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