Your Child's Eyes



Eye exams by your child's doctor are an important way to identify problems with your child's vision. Problems that are found early have a better chance of being treated successfully. Read on for information from the American Academy of Pediatrics about your child's vision, including signs of vision problems and information on various eye conditions.

What can my baby see during the first year of life?

A baby's vision develops quickly during the first year of life.

- Newborns can see large shapes and faces, as well as bright colors.
- By 3 to 4 months, most babies can focus on a variety of smaller objects and tell the difference between colors (especially red and green).
- By 4 months, a baby's eyes should be working together. This is when babies begin to develop depth perception (binocular vision).
- By 12 months, a child's vision reaches normal adult levels while he continues to learn about and understand what he sees.

Keep in mind that each child's vision develops at his or her own rate, but the overall pattern of development is the same. Because a baby's vision develops quickly during the first year of life, your child's doctor will check your baby's eyes at each well-child visit. Even after the first year, regular eye exams by your child's doctor are important to identify problems that may arise later in childhood.



A drawing of the side of the eye. Two terms mentioned in this publication are *cornea* and *pupil*. The cornea is the front surface of the eye. The pupil is the dark part of the eye.

What are warning signs of a vision problem?

• **Babies up to 1 year of age.** Babies older than 3 months should be able to follow or track an object, like a toy or ball, with their eyes as it moves across their field of vision. If your baby can't make steady eye contact by this time or seems unable to see, let your child's doctor know.

Before 4 months, most babies' eyes occasionally look misaligned (strabismus). However, after 4 months, inward crossing or outward drifting that occurs regularly is usually abnormal. If one of these is present, let your child's doctor know.

• **Preschool age.** If your child's eyes become misaligned, let your child's doctor know right away. However, vision problems such as a lazy eye (amblyopia) may have no warning signs, and your child may not report vision problems. That is why it's important at this time to have your child's vision checked. There are special tests to check your child's vision even if he cannot yet read.

- All children. If you notice any of the following signs or symptoms, let your child's doctor know:
 - o Eyes that are misaligned (look crossed, turn out, or don't focus together)
 - White or grayish white color in the pupil
 - o Eyes that flutter quickly from side to side or up and down
 - \circ $\,$ Eye pain, itchiness, or discomfort reported by your child.
 - \circ $\;$ Redness in either eye that doesn't go away in a few days $\;$
 - $\circ~$ Pus or crust in either eye
 - \circ $\;$ Eyes that are always watery
 - o Drooping eyelids
 - Eyes that often appear overly sensitive to light

When should my child's eyes be checked?

Vision screening is a very important way to identify vision problems. During an exam, the doctor looks for eye disease and checks to see if the eyes are working properly. Children with a family history of childhood vision problems are more likely to have eye problems.

The American Academy of Ophthalmology and the American Academy of Pediatrics recommend that children have their eyes checked by a pediatrician at the following ages:

- **Newborn.** All babies should have their eyes checked for infections, defects, cataracts, or glaucoma before leaving the hospital. This is especially true for premature babies, babies who were given oxygen for an extended period, and babies with multiple medical problems.
- **By 6 months of age.** As part of each well-child visit, eye health, vision development, and alignment of the eyes should be checked.
- Starting at 1 to 2 years. Photo screening devices can be used to start detecting potential eyes problems.
- At 3 to 4 years. Eyes and vision should be checked for any abnormalities that may cause problems with later development.
- At 5 years and older. Vision in each eye should be checked separately every year. If a problem is found during routine eye exams, your child's doctor may have your child see a pediatric ophthalmologist. A pediatric ophthalmologist is an eye doctor trained and experienced in the care of children's eye problems.

Learning disabilities

Learning disabilities are quite common in childhood years and have many causes. The eyes are often suspected but almost never the cause of learning problems. Vision therapy will not improve a learning disability. Your child's doctor may refer your child for a thorough evaluation by an educational specialist to find the cause.

Specific eye problems		
Condition	Description	Treatment
Astigmatism	An irregularly shaped cornea that can cause blurred vision.	Glasses if it causes blurred vision.
Blocked tear ducts	In some babies, the eyes overflow with tears and collect mucus.	Gentle massage of the tear duct can help relieve the blockage. If that doesn't work, a tear duct probing procedure or surgery may be needed.
Cataract	A clouding of the lens of the eye.	Most cataracts must be surgically removed. Cataracts in babies and children are rare and usually not related to cataracts in adults.
Chalazion	A firm, painless bump on the eyelid due to a blocked oil gland.	May resolve on its own or be treated with eyedrops or warm compresses. In some cases, minor surgery may be needed.
Droopy eyelids (ptosis)	When the eyelids are not as open as they should be. This is caused by weakness in the muscle that opens the eyelid.	If severe, it can cause poor vision development (amblyopia) and need eyelid surgery.
Falsely misaligned eyes (pseudostrabismus)	Caused by a wide nasal bridge or extra folds of skin between the nose and eye—hence, the eyes only appear cross-eyed.	None. The eyes should be monitored to be sure they remain healthy.
Farsightedness (hyperopia)	Difficulty seeing close objects. A small degree of farsightedness is normal in babies and children.	If it becomes severe or causes the eyes to cross, glasses are needed.
Glaucoma	A condition in which the pressure inside the eye is too high. If left untreated, glaucoma can cause blindness. Warning signs are extreme sensitivity to light, tearing, persistent pain, an enlarged eye, cloudy cornea, and lid spasm.	Glaucoma in childhood usually needs surgery.
Lazy eye (amblyopia)	Reduced vision from lack of use in an otherwise normal eye. It's often caused by poor focusing or misaligned eyes.	Applying a patch or special eyedrops to the "good" eye. Other treatments commonly include glasses or eye muscle surgery for misaligned eyes (see next row).
Misaligned eyes (strabismus)	When one eye turns inward, upward, downward, or outward. This is caused by eye muscles that do not work well together.	Glasses, patches, or surgery depending on cause for the misalignment.
Nearsightedness (myopia)	Difficulty seeing faraway objects. Nearsightedness is very rare in babies but becomes more common in school-aged children.	Glasses are used to correct blurred distance vision. Once nearsighted, children do not usually outgrow the condition and contact lenses may be worn when old enough.
Pinkeye (conjunctivitis)	A reddening of the white part of the eye, usually due to infections, allergies, or irritation. Signs include tearing, discharge, and the feeling that there's something in the eye.	Depending on its cause, pinkeye is often treated with eyedrops or ointment. Frequent hand washing can limit the spread of eye infections to other family members and classmates.
Scratched cornea (corneal abrasion)	A scratch of the front surface of the eye (the cornea). It can be very painful, and the eyes usually tear and are also sensitive to light.	Antibiotic drops or ointment to promote healing and prevent infection.
Stye (hordeolum)	A painful, red bump on the eyelid due to an infected oil or sweat gland.	Warm compresses and antibiotic drops or ointment.
Swollen eyelids (blepharitis)	An inflammation in the oily glands of the eyelid. This usually results in swollen eyelids and excessive crusting of the eyelashes.	Warm compresses and washing the eyelids with baby shampoo. Antibiotics may be needed if there's an infection.

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.



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