Infant Vision: Birth to One Year

What does my baby see? This is a very common question for parents. This Helping Hand will describe what your baby sees from birth to one year of age, and how you can help your baby’s vision develop.

Birth to One month of age

At birth your baby sees only in black and white, and shades of gray. Nerve cells in the brain and retina of the eye are not fully developed. They also have trouble focusing, and are not very light-sensitive yet. Infants’ eyes are large compared to their bodies. When a baby is born, his or her eyes are about 65% of their adult size. One week after birth the baby can see colors and can see about 8-10 inches away. At six weeks of age baby can see about 12 inches away.

You can help your infant’s vision by holding and feeding him or her on each side, left and right (Picture 1). Place your baby in the crib facing different ways to see different views. Put up a mobile so your baby can watch it.

Two months to three months

Your baby should be following objects or “tracking” and should start reaching for things. The baby recognizes your face, and remembers what he or she sees.

You can help your baby’s vision by using a mobile, or holding up bright objects in front of her for the baby to reach for. Your face is one of her favorite things to look at.

For the first two months of life an infant’s eyes are not well coordinated, and may cross or wander. This will usually go away, but if it continues, or if an eye is constantly turned in or out, the baby should be seen by a doctor.
Four months

Vision is clear, and your baby can now see farther away. He or she still prefers looking at you close up and should be awake often. Encourage play time, and reaching for bright objects and toys.

Six months

Your baby’s eyes should be working together all the time. Your baby sees colors like adults do. Play peek-a-boo, and use mirrors to help develop vision.

Seven months to twelve months

Your baby is now moving around more. He or she is better at judging distances and more accurate at grasping objects. Babies are learning to coordinate their vision with their body movements. The color of the eyes may change. Many babies are born with blue eyes. Over time dark pigment is produced which can make the baby’s eyes darker.

You can help your baby’s vision by talking to him or her a lot. Place objects in front of the baby and say the name of the object as you hand it to him or her. Encourage your baby to crawl or walk to toys (Picture 2).

When to call the doctor

All infants should have regular checkups with their doctor, who can screen for problems.
Premature infants are at high risk for vision issues. All premature infants should be seen by a pediatric ophthalmologist by age 3.

If you see any of the following, call your baby’s doctor:

- Eyes that do not work together
- Eyes that have a lot of tearing or crusting
- Baby turns or tilts head to one side or closes one eye most of the time.
- Anytime you are concerned about your baby’s eyes or vision, or if the baby’s regular doctor is concerned

If there are any problems with your baby’s vision, it is much better to find them early. The earlier problems are found, the earlier they can be taken care of.

**Additional information**

American Association of Pediatric Ophthalmology and Strabismus (Aapos.org)
Preventblindness.org
American Academy of Pediatrics (www.aap.org)