InfantSEE

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All information from
AOA.org and Infantsee.org
Baby’s Developing Vision

● Babies learn to see over a period of time, much like they learn to walk and talk.

● They are **not** born with all the visual abilities they need in life.
  ○ Ability to focus their eyes, move them accurately, and use them together as a team is learned.
  ○ Need to learn how to use the visual information the eyes send to their brain in order to understand the world around them and interact with it appropriately.
Baby’s Developing Vision

- From birth, babies begin exploring the wonders in the world with their eyes.
  - Even before they learn to reach and grab with their hands or crawl and sit-up, their eyes are providing information and stimulation important for their development.
Baby’s Developing Vision

- Healthy eyes and good vision play a critical role in how infants and children learn to see.
  - It is important to detect any problems early to ensure babies have the opportunity to develop the visual abilities they need to grow and learn.
  - Eye and vision problems in infants can cause developmental delays.
Baby’s Developing Vision

● Parents play an important role in helping to assure their child's eyes and vision develop properly.

● Steps that parents should take include:
  ○ Watching for signs of eye and vision problems.
  ○ First comprehensive vision exam at about 6 months.
  ○ Helping their child develop his or her vision through age-appropriate activities.
Steps in Infant Vision Development

- The following are some milestones to watch for in vision and child development.

- It is important to remember that not every child is the same and some may reach certain milestones at different ages.
Steps in Infant Vision Development

● Prenatal Care
  ○ Proper prenatal care and nutrition are very important to the development of the baby’s healthy eyes and related nervous system
  ○ Researches continually discover more about the link between nutrition and eyesight
Steps in Infant Vision Development

- Birth
  - At birth, a baby's eyes and visual system aren't fully developed.
  - While they may look intently at a highly contrasted target, babies have not yet developed the ability to easily tell the difference between two targets or move their eyes between the two images.
  - Their primary focus is on objects 8 to 10 inches from their face (distance to mom’s face when feeding).
Steps in Infant Vision Development

● 1 - 2 months
  ○ During first months of life, the eyes start together and vision rapidly improves.
  ○ Eye-hand coordination begins to develop as the infant starts tracking moving objects with his eyes and reaching for them.
  ○ By eight weeks, babies begin to more easily focus their eyes on the faces of a parent / person near them.
  ○ The tear drainage ducts may not be fully developed yet so occasional tearing is normal.
  ● Excessive tearing or pus and discharge should be evaluated
Steps in Infant Vision Development

● 3 months
  ○ For the first two months of life, an infant's eyes are not well coordinated and may appear to wander or to be crossed.
    ● This is usually normal. Evaluate, if an eye appears to turn in or out constantly or no improvement is noted.
  ○ Babies should begin to follow moving objects with their eyes and reach for things at around three months of age.
What You Can Do To Stimulate Vision Development

- Use a nightlight or other dim lamp in baby's room.
- When setting up baby’s room, include bright, contrasting, and varies decorations.
- Change the crib's position frequently and/or change your child's position in it - eyes are drawn to new objects.
- Keep reach-and-touch toys within your baby's focus, about eight to twelve inches.
What You Can Do To Stimulate Vision Development

- Hang a mobile above and outside the crib.
- Talk to your baby as you walk around the room.
- Supervised tummy time.
- Alternate right and left sides with each feeding.
- Stimulate both sides of the body to develop bilateral and binocular development.
Steps in Infant Vision Development

4 - 6 months

- Control of eye movements and eye-body coordination skills continue to improve.
  - Eye movement and eye/body coordination skills continue to develop as vision progressively stimulates and guides movement.
- Develop good color vision by five months of age.
- Depth perception (3D) develops around five months of age.
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BRING BABY IN FOR FIRST COMPREHENSIVE VISION AND EYE EVALUATION AT 6 MONTHS even if no problems are apparent (sooner if any concerns)
Steps in Infant Vision Development

- 8 months
  - Most babies start crawling at about 8 months old, which helps further develop eye-hand-foot-body coordination.
  - Early walkers who do minimal crawling may not learn to use their eyes together as well as babies who crawl a lot.
What You Can Do To Stimulate Vision Development

- Hang a mobile, crib gym, or various objects across the crib for the baby to grab, pull and kick.
- Give the baby plenty of time to play and explore on the floor.
- Provide plastic or wooden blocks that can be held in the hands.
- Let baby explore different shapes and textures with fingers.
- Play patty cake and other games, moving the baby's hands through the motions while saying the words aloud.
Steps in Infant Vision Development

- 9 - 10 months
  - By 9 months, babies begin to pull themselves up to a standing position.
  - By 10 months of age, a baby should be able to grasp objects with thumb and forefinger.
Steps in Infant Vision Development

• 11 - 12 months
  o By twelve months of age, most babies will be crawling and trying to walk.
  o Parents should encourage crawling rather than early walking to help the child develop better eye-hand coordination.
  o Babies can now judge distances fairly well and throw things with precision.
What You Can Do To Stimulate Vision Development

- Play hide and seek games with toys or your face to help the baby develop visual memory.
- Name objects when talking to encourage the baby's word association and vocabulary development skills.
- Encourage crawling and creeping.
- Give baby stacking and take-apart toys.
- Provide objects that baby can touch, hold, and manipulate.
Steps in Infant Vision Development

• 1 - 2 years old
  ○ By two years of age, a child's eye-hand coordination and depth perception should be well developed.
  ○ Children this age are highly interested in exploring their environment and in looking and listening.
  ○ They recognize familiar objects and pictures in books and can scribble with crayon or pencil.
What You Can Do To Stimulate Vision Development

- Roll a ball back and forth to help the child track objects with the eyes visually.
- Give the child building blocks and balls of all shapes and sizes to play with to boost fine motor skills and small muscle development.
- Read or tell stories to stimulate the child's ability to visualize and pave the way for learning and reading skills.
Signs of Eye and Vision Problems for Parents

- The presence of eye and vision problems in infants is rare.
- Most babies begin life with healthy eyes and start to develop the visual abilities they will need throughout life without difficulty.
  - But occasionally, eye health and vision problems can develop.
- Parents need to look for the following signs that may be indications of eye and vision problems
Signs of Eye and Vision Problems for Parents

- **Excessive tearing** - this may indicate blocked tear ducts
- **Red or encrusted eye lids** - this could be a sign of an eye infection
- **Constant eye turning** - may signal problem with eye muscle control
- **Extreme sensitivity to light** - may indicate elevated pressure in eye
- **Appearance of a white pupil** - may indicate presence of eye cancer

The appearance of any of these signs should require **immediate** attention by your pediatrician or optometrist.
Baby’s First Eye Exam

- InfantSEE® is the American Optometric Association's public health program, launched in 2005.
- It is designed to ensure that eye and vision care becomes an integral part of infant wellness care to improve a child's quality of life.
- Under this program, participating optometrists provide one comprehensive eye assessment to infants between 6 and 12 months of age as a no-cost public service.
InfantSEE

- Former President Jimmy Carter has pledged his support for InfantSEE.
- Has two grandchildren with amblyopia (lazy eye), one of which went undetected until he started struggling academically in grade school.
- Had a program like InfantSEE been in place, he may have been treated with far less effort and found academic success sooner.
Baby’s First Eye Exam

Things that the optometrist will test for include:

- vision
- excessive or unequal amounts of nearsightedness, farsightedness, or astigmatism
- eye movement, eye teaming, eye focusing
- amblyopia (lazy eye) and strabismus (cross eye)
- outer and inner eye health (infection, cataract, glaucoma, cancer)

These problems are not common, but it is important to identify children who have them at this young age. Vision development and eye health problems are easier and more successfully corrected if treatment begins early.
Baby’s First Eye Exam

● Unless you notice a need, or your doctor of optometry advises you otherwise, your child's next examination should be around age 3, and then again before he or she enters school.
Did You Know?

- Of the three to four million babies born every year in the United States
  - 1 in 20,000 has retinoblastoma (cancer)
  - 1 in 25 will develop strabismus (cross eye)
  - 1 in 30 will develop amblyopia (lazy eye)
  - 1 in 33 will show significant refractive error (prescription)
Did You Know?

● One in TEN children is at risk for an undiagnosed eye or vision problem - many of which are correctable and/or preventable.
  ○ Yet, only 13% of mothers with children younger than 2 years of age report taking their babies to see an optometrist for a comprehensive evaluation.

● Early intervention is critical to successful and cost-effective treatment.
Did You Know?

- Vision disorders are the 4th most common disability in the U.S.
  - THE MOST prevalent handicapping condition in childhood.
- Below the age of 6yo, only 14% of children are likely to have had an eye and vision examination.
- If left untreated, eye and vision problems can lead to difficulties in development, education, and potential permanent vision loss
  - Majority of learning in school is done through reading, especially after 3rd grade.
Did You Know?

- Estimated 1 in 10 children (age 6 and below) is at risk for an undiagnosed eye or vision problem
  - 25% of infants if born premature, minority, or low income

- Risk factors for many eye conditions have no signs or symptoms
Did You Know?

- Pediatric eye exams are one of the ten essential health benefits under ‘Obamacare’.
- Pediatricians and school nurses provide an important eye screening that is designed to detect GROSS EYE ABNORMALITIES ONLY.
- Even the most highly-trained vision screeners using the top-of-the-line screening equipment will miss one-third of all learning-related eye and vision problems in children.
Did You Know?

- Only comprehensive eye exams fully identify eye problems, provide diagnosis, and ensure a linkage to treatment for all of the vision and eye health issues that can impact a child’s ability to meet important developmental and educational milestones.

- Once missed by vision screening, children may be misdirected toward Individualized Education Plans (IEPs) and/or treatment for disorders like Attention Deficit Hyperactivity Disorder (ADHD) without receiving the vision care they need to help them succeed.
Preparing For A Trip To Your Optometrist

● Fill out online or mailed history form.
  ○ Make sure you note any specific concerns, conditions, or family history of eye disease.

● Make an appointment for a time when the baby is not tired and not hungry (around the time when then wake up after their nap and have eaten).

● If possible, do not bring any siblings to the exam with you.

● Re-schedule if the baby is sick or having a bad day.
Preparing For A Trip To Your Optometrist

- On the day of the visit
  - Change the infant’s diaper just before the assessment.
  - Bring a bottle, pacifier, any security blankets/items and 5-6 of their favorite toys.
  - Be present and attentive during the duration of the exam as you will likely aid in grabbing and holding the infant’s attention.
  - If siblings are present, recruit them as helpers during the exam or bring something for them to do.
How Do We Examine Infants
Find an InfantSEE® Doctor

Within: 1 mile

of ZIP:

Search

Begin a lifetime of healthy vision for your infant today! Use AOA's Dr. Locator to find an InfantSEE® doctor near you. Over 7,000 AOA-member optometrists have volunteered to serve as InfantSEE® optometrists nationwide.
They May Never Recover From Early Vision Problems which can have a profound effect on a child’s education, self worth, and what they do with their life.