Vision Developmental Milestones for Children - Developed in Partnership with the WVU Vision Initiative for Children

**Child’s Age** | **Vision Milestone** | **Child’s Age** | **Vision Milestone**
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0 to 3 Months | • Turns eyes and head to look at light sources | 2 to 3 Years | • Builds tower with 6 blocks
• Briefly holds gaze on bright light or objects | • Imitates vertical line
• Stares at surroundings | • Recognizes people in photographs
• Blinks at camera flash | • Begins to inspect objects without touching objects
• Moves eyes and head together | • Smiles and face brightens when looking at favorite people or objects
• Tracks vertically and horizontally | • Likes to watch movement of objects, such as wheels on toy vehicle
• Begins eye contact at 6 to 8 weeks | • Watches and imitates other children
3 to 6 Months | • Follows moving objects with eyes across midline | 3 to 4 Years | • Copies a circle
• Begins moving eyes with less head movement | • Begins to know colors
• Watches own hands before face | • Cuts with scissors
• Looks at hands, food, or bottle when sitting | • Brings head and eyes close to page of a book
• Watches face when spoken to | • Can close eyes on request and may be able to work
• Briefly fixates on still objects | • Moves and rolls eyes expressively
• Reaches for small objects | • Can place small objects into small openings
7 to 12 Months | • Orient to objects in home | 4 through 5 Years | • Demonstrates visual interest in new “stuff”
• May turn eyes inward when looking at hands or toys | • Copies a cross, square, and triangle
• Notices small objects, like cereal | • Draws person with head, trunk, and limbs
• Interested in pictures | • Draws recognizable person and house and names pictures
• Enjoys hide-and-seek (recognizes partially hidden objects) | • Uses eyes and hands together with increasing skill
• Inspects toys held in hands | • Moves and rolls eyes expressively
• Responds to smiles and voices | • Can place small objects into small openings
• Sweeps eyes across room | • Demonstrates visual interest in new “stuff”
1 to 2 Years | • Uses “pincer grasp” to hold objects between forefinger and thumb | 1.800.362.3860
| | • Looks for toys that fall out of sight | • Imitates vertical line
• Builds tower with 3 blocks | • Red reflex examination
• Enjoys pictures books and points to pictures | • Demonstrates visual interest in new “stuff”
| | • Uses both hands | • Cuts and pastes simple projects
| | • Holds objects close to eyes to inspect | 2.857.420.9076

Helping You Screen Vision

We know your pediatric practice is demanding and time is tight. The Good-Lite Company is all about helping you conduct vision screening as quickly and effectively as possible.

• To meet your individualized vision screening environment, our product line ranges from hand-held charts, wall-mounted charts, lighted cabinet charts, all the way to our newest creation: computer-based charts.
• To overcome space issues, we provide screening charts in distances of 3, 5, 10, 15, and 20 feet.
• To accommodate your patient ages and developmental levels, we offer symbol, letter, and number formats.
• To reduce the number of “would not cooperate” preschoolers, we now offer fun occluder frames.
• To fulfill the AAP or your specific state vision screening guidelines, we have what you need.

Importance of Preschool Vision Screening

• An unnecessarily high prevalence of permanent vision loss exists in young children as a result of common, treatable, yet often undetected and undiagnosed, pediatric eye disorders.
• Research suggests that at least in 10 to 20 (5% to 10%) preschool children experience undetected vision disorders that can lead to permanent vision impairment if these problems are not detected and treated early. It is preferable before a child is age 4.
• In the United States, 1 of the 10 most frequent causes of disability in adults aged 18 and older is impaired vision. 
• A concern with amblyopia is the risk for visual handicap if vision is lost in the better eye. When compared with the general population, individuals with amblyopia are at a higher risk of becoming blind. 5 times more likely to experience vision loss in their better seeing eye, and possess a lifetime risk of 1.25% to 3% for serious vision loss in the better eye.

Resources

- Good-Lite www.good-lite.com/pedskit
- LEA Symbols® www.lea-test.fi
- WVU Vision Initiative for Children

![Image](629x665 to 1208x775)

AAP Eye Evaluation Guidelines

- **Birth to 3 Years**
  - Ocular history
  - Vision assessment
  - External inspection of the eyes and lids
  - Ocular motility assessment
  - Papil examination
  - Red reflex examination

- **2 Years and Older**
  - Ocular history
  - Vision assessment
  - External inspection of the eyes and lids
  - Ocular motility assessment
  - Papil examination
  - Red reflex examination
  - Age-appropriate visual acuity measurement
  - Attempt at ophthalmoscopy

AAP Visual Acuity Measurement Guidelines

- **Ages 3 and Older**
  - **Function**
    - Distance
    - Visual Acuity
    - Distance
    - Visual Acuity

- **Tests**
  - Snellen letters
  - Snellen numbers
  - Tumbling E
  - HOTT
  - Allen figures
  - LEA Symbols®

- **Good-Lite® Product**
  - Cross cover test
  - Random Dot E
  - Simultaneous red reflex
  - Translumir Oculuder

- **Ocular Alignment**
  - Red reflex

- **Ocular Media Clarity**
  - Red reflex

Reference


Questions and Answers

Question:
Given the choices of distance visual acuity tests, which test is most appropriate for what ages?

Answer:
The benchmark clinical study, The Vision in Preschoolers Study, evaluated the accuracy of screening tests used to identify preschool-aged children in need of further evaluation for vision disorders. Tests included the LEA Symbols®, HOTV, and the Random Dot E. Allen figures and Tumbling E tests were not included in this national study. Findings suggested that the LEA Symbols® performed better than HOTV for younger children. Thus, Good-Lite® recommends LEA Symbols® for children before kindergarten and either HOTV or Sloan letters for children 6 and older.

Product Lines from Good-Lite® to Assist You in Vision Screening

Pediatric Vision Screener Starter Kit - Developed in Partnership with the WVU Vision Initiative for Children (VIC)

For Screening from Preschool through High School, includes:
- Sloan letter chart (Stellen)
- VIC Wall Chart with LEA Symbols® for ages 3, 4, and 5 and HOTV for older children
- Random Dot E
- Fun Occluder Frames for younger children
- Occluder for older children
- Information for distribution to parents:
  - Importance of Preschool Vision Screening
  - Importance of Confirmatory Eye Exam
  - Vision Developmental Milestones

Good-Lite® Computer-Based Vision Screening Software

For Screening from Preschool through High School, includes:
- Sloan letters (Stellen)
- LEA Symbols®
- HOTV

Preschool Vision Screening Kit - Developed in Partnership with the West Virginia University Vision Initiative for Children (VIC) - $395.00

For Screening from Preschool through High School, includes:
- Hand-held LEA Symbols®/HOTV Flipchart or Wall-Mounted Chart
- Cord to measure 0-foot testing distance
- Fun Occluder Frames
- Training CD
- Screening directions
- Coupon for 30 minutes of preschool vision screening support
- Face-to-Face workshop available
- Ongoing support available

Additional Helpful Good-Lite® Vision Screening Products

Complete LED Insta-Line Quantum™ Features:
- Administer in less than 2 minutes
- 10-foot test for Visual Acuity
- Wireless Remote Control to light a line at a time
- Muscle Imbalance
- Hypopyon
- LEA Symbols® Test Set
- LEA Numbers®
- “E” Chart
- Sloan Letter Chart
- HOTV Test Set
- Occluder
- +1.75, +2.25, and +2.50 hyperopia glasses

ESV1200 LED Quantum™ - $395.00 ea. Features:
- Uses light emitting diodes (LED) to provide uniform illumination
- Order charts you want

Preschool SIGHT® LEA Symbols® & HOTV Screening System Features:
- Screens for anisometropic amblyopia in children ages 3 through 5
- Uses either crowded or uncrowded LEA Symbols® and HOTV letters in line sizes 20/100, 20/50, and 20/20
- 40” (1 meter) cord
- Instructions, recording form, response key, and flash cards

Fun Occluder Frames
- Great for screening reluctant preschoolers

Resources

Good-Lite® www.good-lite.com/pedskit
LEA Symbols® www.lea-test.fi
WVU Vision Initiative for Children www.hsc.wvu.edu/som/eye/vic

Importance of Preschool Vision Screening

Up to 1 in 10 to 20 young children will have common vision problems that can lead to permanent vision loss if these problems are not detected and treated early in a child’s life.

Common vision problems include:
- Amblyopia
- Also called lazy eye, but defined as poor vision development at the brain level when the brain does not receive normal sensory input from an eye that has a defect in it
- Described as the most common cause of vision loss in children
- Described as the leading cause of preventable vision loss in children
- If not detected by age 5, amblyopia is often difficult, if not impossible, to reverse
- Strabismus
- Also called lazy eye, but defined as misaligned or crossed eyes
- Abnormal refractive errors
- Also called lazy eye, but defined as:
  - Nearsightedness or myopia
  - Hyperopia or farsightedness
  - Astigmatism

If vision disorders are not detected and treated early, these vision disorders can lead to permanent vision loss.

Permanent vision loss has been cited as 1 of the 10 most frequent causes of disability in the United States.

Vision disorders represent the 4th most common disability among children.

Children cannot tell adults they have blurred vision, do not know how they should see, and must rely on adults to detect their vision disorders.

Children who are born prematurely, born into poverty, and those with a family history of vision problems can be at a “high risk” of developing vision disorders.

Children who do not outgrow amblyopia or strabismus. The child whose amblyopia or strabismus is left untreated will grow into an adult who has poor or little vision.

For more information: Call the West Virginia University Vision Initiative for Children at 304-598-6968, e-mail at chaplinp@pharmacy.wvu.edu or search www.lea-test.fi

WVU Vision Initiative for Children

Importance of Follow-up

If your child does not pass vision screening, or if you have a concern about your child’s vision, it is important to make an appointment with an eye care specialist for a follow-up, confirmatory eye exam. And, it is important to attend that appointment.

Why is a confirmatory eye exam important when your child does not pass vision screening?
- You may see nothing in your child’s behaviors that suggests your child has a vision problem.
- Typically vision problems do not cause pain.
- Children typically cannot tell us they have vision problems.
- Vision problems affect up to 1 in 10 to 20 children and can lead to lifelong vision loss.
- Early treatment gives a child with vision problems the best opportunity for good eyesight as an adult.
- An eye exam by an eye care professional after a failed vision screen will determine whether your child has a vision problem.
- Children do not outgrow amblyopia or strabismus. The child whose amblyopia or strabismus is left untreated will grow into an adult who has poor or little vision.