Vision Screening: Evidence-Based Options for Early Head Start

Elyse Fineman, MPH, MHA
Created by
Dr. P. Kay Nottingham Chaplin, EdD
Information You Will Take Home …

3 Learning Objectives

List 18 vision development milestones that should occur in baby’s first year of life.

Describe 2 actions to take when vision development milestones are not met.

Describe 1 evidence-based screening tool for ages 1 and 2 years.
Cast of Characters

**NCCVEH:**
- National Center for Children’s Vision and Eye Health at Prevent Blindness
  - Optometry
  - Ophthalmology
  - Family Advocates
  - Nurses
  - Public Health Professionals
  - Educators

**AAP:**
- American Academy of Pediatrics
- American Association for Pediatric Ophthalmology and Strabismus
- American Academy of Ophthalmology
- American Association of Certified Orthoptists
What Does an “evidence-based Approach” Mean?

The National Center on Early Childhood Health and Wellness defines evidence-based as: "an umbrella term that refers to the use of the best research evidence (found in health sciences literature) and clinical expertise (what health care providers know).

[Adapted from the National Institutes of Health https://prevention.nih.gov/resources-for-researchers/dissemination-and-implementation-resources/evidence-based-programs-practices.]

For example:

• Simply stating a tool was used to screen 10,000 children does not make the tool evidence-based.

• A peer-reviewed publication stating the tool was used to screen 10,000 children, screening results were compared with eye examination results, and the tool found 90% of children with vision disorders is an example of an evidence-based tool.
Key Year 1 Vision Development Milestones
18 Vision Development Milestones From Birth to Baby’s First Birthday

P. Kay Nottingham Chaplin, EdD – Kira Baldonado, BA

About this Tool:
- This document is a vision screening tool for Early Head Start, Parents as Teachers, and other early care and education programs.
- This tool is a table containing vision milestones in order of typical development.
- The 1st column lists the age.
- The 2nd column lists the milestones typically expected to occur for the age.
- The 3rd column lists the questions to ask.
- The 4th column lists Next Steps when a referral is required. It also provides activities that parents and caregivers can do to help with the milestones.
- Because each child develops differently and may meet the vision milestones at different ages, vision milestones may vary up to 6 weeks; some questions provide ages for rescreening before referring.
  - Although milestones may vary up to 6 weeks, if baby’s eyes appear to be constantly misaligned (possible strabismus) at age 2 months or older, refer immediately for an eye examination.
- When using this tool with children who were born prematurely and have no health challenges, adjust chronological age to the corrected age* and use this tool based on corrected age (see above box). Visual development milestones may be delayed if babies have health challenges (i.e., genetic syndromes, neurologic and metabolic conditions, etc.). For these children, use vision screening results from the baby’s primary care provider or eye examination results from the baby’s eye care professionals to meet your vision screening mandate.

Instructions:
1. Visual skills typically develop in a particular order. To determine if the baby has met all vision milestones, begin with Page 2 regardless of baby’s age. Do not skip to the chronological or corrected age of the baby you are screening.
2. Check the appropriate boxes in the “Questions” column. Some will require rescreening if the vision milestone has not been met.
3. Complete the “Questions” column of the table before completing the Pass/Rescreen/Refer Documentation pages beginning on page 10. This tool and/or the Pass/Rescreen/Refer Documentation can be placed the baby’s file for record-keeping purposes.
4. Use this tool throughout baby’s first year to review vision development milestones.

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*To calculate “corrected age”, subtract the number of weeks born before 40 weeks of gestation from the chronological age. For example, chronological age = 6 months (24 weeks). Child born at 28 weeks gestation. 40 weeks minus 28 weeks = 12 weeks. Chronological age of 24 weeks minus 12 weeks equal 12 weeks (3 months). Corrected age is 3 months. You may find this age calculator helpful: https://mymonthlycycles.com/premature_baby_age_calculator.jsp
Vision Developmental Milestones Check-off Tool available at:

http://nationalcenter.preventblindness.org/publications-and-presentations

Reports and Information from Prevent Blindness

- Results from 2016 National Survey of Children's Health (NSCH)
- A complete list of public health reports available from Prevent Blindness
- Children's Vision and Eye Health: A Snapshot of Current National Issues
- Eye health and safety information
- Our Vision for Children's Vision, A National Call to Action for the Advancement of Children's Vision and Eye Health
- Prevent Blindness Statement on School-Aged Vision Screening and Eye Health Programs

- 18 Vision Development Milestones From Birth to Baby's First Birthday
- 18 Vision Development Milestones From Birth to Baby's First Birthday (SPANISH)
• Time for reaching milestones can vary up to 6 weeks . . . except milestone related to straight eyes.

• Slides show when baby should reach milestones.

• Process:
  • Milestone(s) and age or age range when milestone(s) should occur
  • Questions to ask or behaviors to monitor about the milestones
  • What to do if milestones are not met . . . or next steps
Many vision milestones are related to overall developmental milestones. . . . want you to think about those milestones from a perspective of vision. . . . or how baby’s vision could impact reaching a milestone.
<table>
<thead>
<tr>
<th>AGE (Milestones may vary up to 6 weeks)</th>
<th>MILESTONE</th>
<th>QUESTIONS</th>
<th>NEXT STEPS</th>
</tr>
</thead>
</table>
| **Birth through 1st month**           | 1. Baby begins to focus on lights, faces, and objects 8 to 15 (20.32 – 38.1 cm) inches away from his/her face. | 1. Does baby focus on lights, faces, and objects 8 to 15 inches (20.32 – 38.1 cm) in front of his/her face?  
   - Yes (pass).  
   - Not Yet (rescreen within 6 weeks). Date for rescreen:  
     - If “No” after rescreening, move to Next Steps. |  
   - Refer to baby’s primary health care provider for further evaluation and to coordinate a referral for an eye examination.  
   - Refer to Birth to 3 Early Intervention program.  
   - Activities parents and caregivers can do:  
     - Hold your baby in front of you, look at your baby, and slowly move your head from side to side. Play together and have fun!  
     - Hold a patterned, high-contrast toy within 8 to 15 inches (20.32 – 38.1 cm) of your baby’s face. Slowly move the object up and down or side to side. Play together and have fun!  
     - Place a small rattle or colorful, plastic right in your baby’s hands and gently shake your baby’s hands in front of your baby’s face. Play together and have fun! |
|                                       | 2. Baby begins to follow slowly moving lights, faces, and objects at near. | 2. Is baby beginning to follow slowly moving lights, faces, and objects with his/her head and eyes?  
   - Yes (pass).  
   - Not Yet (rescreen within 6 weeks). Date for rescreen:  
     - If “No” after rescreening, move to Next Steps. | |

**NEXT MILESTONE DURING AGE 2ND AND 3RD MONTHS**
### AGE
(Milestones may vary up to 6 weeks.)

#### During 2nd and 3rd months

<table>
<thead>
<tr>
<th>MILESTONE</th>
<th>QUESTIONS</th>
<th>NEXT STEPS</th>
</tr>
</thead>
</table>
| 3. Baby begins to notice his/her hands. | 3. Is baby aware of his/her hands during the 2nd month?  
  - Yes (pass).  
  - No (refer and move to Next Steps). | Refer to baby's pediatric primary health care provider for further evaluation and to coordinate a referral for an eye examination. |
| 4. Baby makes eye contact with parent or caregiver. | 4. Does baby look directly at parent's or caregiver's eyes?  
  - Yes (pass).  
  - Not Yet (rescreen within 6 weeks). Date for rescreen:  
    - If "No" after rescreening, move to Next Steps. | Refer to Birth to 3 Early Intervention program. |
| 5. Baby follows moving lights, faces, people, and objects with both eyes together. | 5. Is baby following moving lights, faces, people, and objects with both eyes together?  
  - Yes (pass).  
  - Not Yet (rescreen within 6 weeks). Date for rescreen:  
    - If "No" after rescreening, move to Next Steps. | Activities parents and caregivers can do:  
  - Look at your baby with his/her face about 8 to 15 inches from your face, wait for your baby to look at your face; and smile, sing, or talk to your baby. Play together and have fun! |
| 6. Baby has a social smile. | 6. Is baby smiling at his/her parent or caregiver by age 3 months?  
  - Yes (pass).  
  - No (Refer and move to Next Steps). | Hold a favorite toy, bottle, or patterned and high-contrast object within 8 to 15 inches (20.32 – 38.1 cm) of your baby's face. Slowly move the object up and down or side to side. Play together and have fun! |

**IF BABY IS AGE 3 TO 4 MONTHS, ALSO DO THE FOLLOWING MILESTONE**

- If baby is not meeting the milestones as expected, contact the primary care provider.
If Baby Does Not Maintain Stable Eye Contact or Avoids Looking at Parent or Caregiver . . .

Videos from Lea Hyvärinen, MD, PhD

Refer for eye examination
<table>
<thead>
<tr>
<th>AGE</th>
<th>MILESTONE</th>
<th>QUESTIONS</th>
<th>NEXT STEPS</th>
</tr>
</thead>
</table>
| During 3rd and 4th months       | 7. Baby watches his/her hand movements.             | 7. Does baby watch his/her hands?  
   - Yes (pass).  
   - Not Yet (rescreen within 6 weeks). Date for rescreen: ____________  
   - If “No” after rescreening, move to Next Steps.  
 |                                  | 8. Baby reaches for objects or parent’s or caregiver’s face. | 8. Does baby reach for objects or parent’s or caregiver’s face?  
   - Yes (pass).  
   - Not Yet (rescreen within 6 weeks). Date for rescreen: ____________  
   - If “No” after rescreening, move to Next Steps.  
 |                                  | 9. Baby grasps and holds objects in his/her hands.  | 9. Does baby grasp and hold an object in his/her hands?  
   - Yes (pass).  
   - Not Yet (rescreen within 6 weeks). Date for rescreen: ____________  
   - If “No” after rescreening, move to Next Steps.  
 |                                  | 10. Baby brings objects to his/her mouth.            | 10. Does baby bring objects to his/her mouth by age 4 months?  
   - Yes (pass).  
   - No (refer and move to Next Steps).  
 |                                  | 11. Baby moves eyes from person to person or object to object. | 11. Does baby shift his/her eyes from person to person or object to object during age 4 months?  
   - Yes (pass).  
   - No (refer and move to Next Steps).  
 | NEXT MILESTONE AT AGE 5 MONTHS   |                                                     |                                                                                                                                         | Refer to baby’s pediatric primary health care provider for further evaluation and to coordinate a referral for an eye examination.  
                                                     |                                                     |                                                                                                                                         | Refer to Birth to Three Early Intervention program.  
                                                     |                                                     |                                                                                                                                         | Activities parents and caregivers can do:  
                                                     |                                                     |                                                                                                                                         | • With baby’s back on a flat surface, gently use baby’s elbows to bring hands together at the middle of baby’s chest. Play together and have fun!  
                                                     |                                                     |                                                                                                                                         | • Use age-appropriate baby toys to help baby use his/her hands to explore. Play together and have fun!  
                                                     |                                                     |                                                                                                                                         | • Hold a toy in one hand toward the right side of baby’s face and shake or activate the toy. Repeat with a different toy in the other hand toward the left side of baby face. Alternate between toys, shaking or activating one toy at a time.  

Home-Based Visitor/Nurse Signature: ____________________________ Date: ____________________________
## AGE
(Refer if eyes not straight by the 5th mo.)

### By 5th month

<table>
<thead>
<tr>
<th>MILESTONE</th>
<th>QUESTIONS</th>
<th>NEXT STEPS</th>
</tr>
</thead>
</table>
❑ No, (refer and move to Next Steps).                                                                                                                                | ❑ If you think baby's eyes are not straight, or an eye appears to cross or drift outward, after age 4 months, immediately refer to an eye care professional for an eye examination.  
❑ Refer to Birth to Three Early Intervention program.  
❑ Yes, (refer and move to Next Steps).                                                                                                                                  |
| 13. Neither of baby’s eyes turn up, down, in, or out for several minutes at a time, either constantly* or intermittently** |  ❑ Yes (pass).  
❑ No (pass).                                                                                                               |                                                                                                                                                  |

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*Constantly and constant means the misalignment is present all the time and could be up, down, in, or out (see Pictures 9 and 10 on left as examples).  
**Intermittently and intermittent means an eye turns in, out, up, or down, only for a short time.

NEXT MILESTONE AT AGE 6 MONTHS

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Home-Based Visitor/Nurse Signature: ____________________________ Date: ____________________________
### AGE
(Milestones may vary up to 6 weeks.)

**During 6th and 7th months**

<table>
<thead>
<tr>
<th>MILESTONE</th>
<th>QUESTIONS</th>
<th>NEXT STEPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. Baby purposefully reaches for objects.</td>
<td>14. Does baby purposefully reach for objects baby wants?</td>
<td>§ Refer to baby’s pediatric primary health care provider for further evaluation and to coordinate a referral for an eye examination.</td>
</tr>
<tr>
<td></td>
<td>§ Yes (pass).</td>
<td>§ Refer to Birth to Three Early Intervention program.</td>
</tr>
<tr>
<td></td>
<td>§ Not Yet (rescreen within 6 weeks).</td>
<td>§ Activities parents and caregivers can do:</td>
</tr>
<tr>
<td></td>
<td>Date for rescreen: _______</td>
<td>* Place favorite toy or other object close to, but slightly out of reach, of baby and encourage baby to reach for the toy or object.</td>
</tr>
<tr>
<td></td>
<td>§ If “No” after rescreening, move to Next Steps.</td>
<td>* Give baby the toy/object after he/she reaches for it so he/she can play with the toy or object. Play together and have fun!</td>
</tr>
<tr>
<td>15. Baby follows objects with both his/her eyes at near (1 foot [30.48 cm]) and far (greater than 6 feet [182.88]).</td>
<td>15. Does baby follows objects with both eyes at near (1 foot [30.48 cm]) and far (greater than 6 feet [182.88]) by age 7 months?</td>
<td>§ Yes (pass).</td>
</tr>
<tr>
<td></td>
<td>§ No (refer and move to Next Steps).</td>
<td>§ No (refer and move to Next Steps).</td>
</tr>
</tbody>
</table>

**NEXT MILESTONE AT AGE 8 MONTHS**

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Home-Based Visitor/Nurse Signature: __________________________  Date: ________________
## AGE
(Milestones may vary up to 6 weeks.)

### During 8th, 9th, or 10th months

<table>
<thead>
<tr>
<th>MILESTONE</th>
<th>QUESTIONS</th>
<th>NEXT STEPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. Baby recognizes family and/or caregiver faces.</td>
<td>16. Does baby recognize family members and/or caregivers and have a welcoming smile before hearing his/her voices or seeing his/her smiles?</td>
<td>❑ Refer to baby’s pediatric primary health care provider for further evaluation and to coordinate a referral for an eye examination.</td>
</tr>
<tr>
<td></td>
<td>❑ Yes (pass)</td>
<td>❑ Refer to Birth to 3 Early Intervention program.</td>
</tr>
<tr>
<td></td>
<td>❑ Not yet (rescreen at age 9 months)</td>
<td>❑ Activities parents and caregivers can do:</td>
</tr>
<tr>
<td></td>
<td>Date for rescreen:</td>
<td>• Wear the same colorful blouse/shirt when greeting baby each morning.</td>
</tr>
<tr>
<td></td>
<td>❑ Rescreening at age 9 months.</td>
<td>• Use the same phrase when approaching your baby, such as “Here comes XXX” or “Hi XXX”.</td>
</tr>
<tr>
<td></td>
<td>❑ Yes (pass)</td>
<td>• Say the names of family members. Ask “Where is Mommy?” Give baby time to look and locate Mommy’s face.</td>
</tr>
<tr>
<td></td>
<td>❑ Not yet (rescreen at age 10 months)</td>
<td>• Provide lots of face-to-face opportunities for interacting. Repeating these opportunities will help you baby visually tell the difference between faces and objects.</td>
</tr>
<tr>
<td></td>
<td>Date for rescreen:</td>
<td>• Have your baby look at his/her own face in a mirror.</td>
</tr>
<tr>
<td></td>
<td>❑ Rescreening at age 10 months.</td>
<td>• Play Peek-a-boo.</td>
</tr>
<tr>
<td></td>
<td>❑ Yes (pass)</td>
<td></td>
</tr>
<tr>
<td>17. Baby looks at small objects, such as cereal or a raisin.</td>
<td>❑ No (refer and move to Next Steps).</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

### NEXT MILESTONE AT AGE 11 MONTHS

<table>
<thead>
<tr>
<th>MILESTONE</th>
<th>QUESTIONS</th>
<th>NEXT STEPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>17. Does baby look at small objects, such as cereal or a raisin?</td>
<td>❑ Yes (pass)</td>
<td>❑ Refer to Birth to 3 Early Intervention program.</td>
</tr>
<tr>
<td></td>
<td>❑ Not yet (rescreen at age 9 months)</td>
<td>❑ Activities parents and caregivers can do:</td>
</tr>
<tr>
<td></td>
<td>Date for rescreen:</td>
<td>• Wear the same colorful blouse/shirt when greeting baby each morning.</td>
</tr>
<tr>
<td></td>
<td>❑ Rescreening at age 9 months.</td>
<td>• Use the same phrase when approaching your baby, such as “Here comes XXX” or “Hi XXX”.</td>
</tr>
<tr>
<td></td>
<td>❑ Yes (pass)</td>
<td>• Say the names of family members. Ask “Where is Mommy?” Give baby time to look and locate Mommy’s face.</td>
</tr>
<tr>
<td></td>
<td>❑ Not yet (rescreen at age 10 months)</td>
<td>• Provide lots of face-to-face opportunities for interacting. Repeating these opportunities will help you baby visually tell the difference between faces and objects.</td>
</tr>
<tr>
<td></td>
<td>Date for rescreen:</td>
<td>• Have your baby look at his/her own face in a mirror.</td>
</tr>
<tr>
<td></td>
<td>❑ Rescreening at age 10 months.</td>
<td>• Play Peek-a-boo.</td>
</tr>
<tr>
<td></td>
<td>❑ Yes (pass)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>❑ No (refer and move to Next Steps).</td>
<td></td>
</tr>
</tbody>
</table>

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Home-Based Visitor/Nurse Signature: __________________________________________ Date: __________________________
<table>
<thead>
<tr>
<th>AGE</th>
<th>MILESTONE</th>
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</tr>
</thead>
</table>
| During 11th and 12th months | • Use this milestone if baby has been exposed to books:  
18.A. Baby uses his/her index finger to point to pictures in a book. | 18.A. When given a book with pictures, does baby use his/her index finger and point to pictures in the book?  
- Yes (pass)  
- No (refer and move to Next Steps). | • Refer to baby's pediatric primary health care provider for further evaluation and to coordinate a referral for an eye examination.  
• Refer to Birth to 3 Early Intervention program.  
• Activities parents and caregivers can do:  
  - Look at a book with pictures with baby.  
    - Point to simple, high-contrast pictures in an age-appropriate children’s book and name the picture. Remove hand. Ask your baby where is X (using same picture)?  
    - If your baby points to the same picture, praise baby.  
    - If your baby does not point to the same picture, again point to the same picture and name the picture. Then, gently move baby’s finger to the same picture and name picture. Make it fun!  
    - If baby does not respond to the book, try a different book. Perhaps baby is not interested in the first book. |
### AGE
*(Milestones may vary up to 6 weeks.)*

<table>
<thead>
<tr>
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</tr>
</thead>
</table>
| 18. B. Baby looks for object dropped in containers. | 18. B. When an object (such as a toy block) is dropped into a container, does baby look in the container for the object?  
- Yes (pass)  
- No (refer and move to Next Steps). |  
- Refer to baby’s pediatric primary health care provider for further evaluation and to coordinate a referral for an eye examination.  
- Refer to Birth to 3 Early Intervention.  
- Activities parents and caregivers can do:  
  - Use a block or favorite toy with a container nearby. Talk with your baby about the block or favorite toy. Drop the block or favorite toy and ask your baby where the X went.  
  - If your baby does not look into the container, you look into the container and say “Here is X” and repeat 3 or 4 times. Make it a game. |
## Pass/Rescreen/Refer Documentation

### Birth through 1st Month

1. Does baby focus on lights, faces, and objects 8 to 15 inches (20.32 – 38.1 cm) in front of his/her face?
   - Screen Date: __________________________
   - Rescreen Date: ________________________
   - Pass
   - Rescreen
   - Refer health care provider
   - Refer EI

2. Is baby beginning to follow slowly moving lights, faces, and objects with his/her head and eyes?
   - Screen Date: __________________________
   - Rescreen Date: ________________________
   - Pass
   - Rescreen
   - Refer health care provider
   - Refer EI

### During 2nd and 3rd Months

3. Is baby aware of his/her hands during the 2nd month?
   - Screen Date: __________________________
   - Refer health care provider
   - Refer EI

4. Does baby look directly at parent’s or caregiver's eyes?
   - Screen Date: __________________________
   - Rescreen Date: ________________________
   - Pass
   - Refer health care provider
   - Refer EI

5. Is baby following moving lights, faces, people, and objects with both eyes together?
   - Screen Date: __________________________
   - Rescreen Date: ________________________
   - Pass
   - Refer health care provider
   - Refer EI

6. Is baby smiling at his/her parent or caregiver by age 3 months?
   - Screen Date: __________________________
   - Refer health care provider
   - Refer EI

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Home-Based Visitor/Nurse Signature: __________________________
Date: __________________________
Expert Contributors:

Sandra Block, OD, Med, MPH, FAAO, FCVD
- Member of National Expert Panel to the National Center for Children’s Vision and Eye Health (NCCVEH) at Prevent Blindness
- Professor; Medical Director, School Based Clinics, Director of School-Based Research at Illinois College of Optometry

Deborah Chen, PhD
- Professor Emerita in Early Childhood Special Education, Department of Special Education, California State University Northridge
- Co-author with Gail Calvello and Clare Taylor Friedman of the Parents and Infants with Visual Impairments (PAIVI) Manual, created as a 3-year project of the Blind Babies Foundation with support from the U.S. Department of Education

Megan E. Collins, MD, Pediatric Ophthalmologist
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- A Principle Investigator of BREDS, Vision for Baltimore, and Vision for Chicago

Susan Cotter, OD, MS, FAAO
- Member of National Expert Panel to the National Center for Children’s Vision and Eye Health (NCCVEH) at Prevent Blindness
- Member of Advisory Committee to the NCCVEH
- Professor at the Southern California College of Optometry at Marshall B. Ketchum University

Anne S. Nielsen, PhD
- Outreach Coordinator, Kansas State School for the Blind Manhattan Kansas Office
Resources Consulted:


Let’s Try Using the Vision Development Milestones Tool
Child’s age: 5 months

Developmental skills exhibited:
- Maintaining stable eye contact initiated by an adult
- Social smile
- Exploring hands and putting them in their mouth
- Watching hand movements of others
- Eyes drift and cross when tired

Pass or Refer?

Refer
• Child’s age: 9 months
  • Developmental skills exhibited:
    • Maintains stable eye contact initiated by an adult
    • Social smile
    • Exploring hands and putting them in their mouth
    • Watching hand movements of others
    • One eye turns in
    • Goal-directed arm movements
    • Recognizes parents, caregivers, and Grandpa

Pass or Refer?

• Refer
• Child’s age: 9 months
  • Developmental skills exhibited:
    • Maintains stable eye contact initiated by an adult
    • Social smile
    • Exploring hands and putting them in their mouth
    • Watching hand movements of others
    • Eyes are straight
    • Goal-directed arm movements
    • Recognizes parents, caregivers, and Grandpa

• Pass or Refer?
• Pass
Vision Screening Years 1 and 2
Instrument-based screening

- Instruments assess the eye STRUCTURE, not how the brain interprets CLEARNESS of vision

- Instruments analyze digital images of the eyes to provide information about amblyopia risk factors:
  - Estimates of significant refractive error (hyperopia [farsightedness], myopia [nearsightedness], astigmatism [blurred vision at both near and far])
  - Estimates of anisometropia (significant difference of refractive error between the two eyes)
  - Estimates of eye misalignment
**Instrument-Based Screening**

**AAP**
- Use beginning at age 12 months
- Ages 1 and 2 years

Instruments Vetted by NCCVEH

Welch Allyn®
Spot™ Vision Screener

Welch Allyn®
SureSight™ Vision Screener

Plusoptix
S12C Vision Screener

Retinomax
(Right Mfg. Co Ltd.-
Tokyo, Japan)
Vision Screening is . . .

- Part of a process…not a single event.
- 1 of 12 components of a strong vision health system of care.
Evaluating *Your* Vision Health Program

Annual Vision Health Program Evaluation Checklist

Evaluation Date: ___________ Completed By: _____________________________

Instructions: Review each component described below. Select the “Yes”, “No”, or other response that best describes your vision health program as it currently operates. Please note comments in the area indicated. Once you have responded to the questions in each of the components proceed to the “Vision Health System Action Plan” located on page 7 to identify areas for attention or improvement in your program.

1. Our program ensures that all parents/caregivers receive educational material, which respects cultural and literacy needs, about the importance of:
   a. Good vision for their child now and in the future.
   b. Scheduling and attending an eye exam when their child does not pass vision screening.
   c. Increased risk for vision problems in defined high-risk populations.

<table>
<thead>
<tr>
<th>Check Yes or No</th>
<th>Point of evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes  No</td>
<td>We have vision health information in all native languages of the families that we serve.</td>
</tr>
<tr>
<td>Yes  No</td>
<td>We discuss the importance of healthy vision as a part of proper child development in the general health information provided by our program.</td>
</tr>
<tr>
<td>Yes  No</td>
<td>We provide parents with easy-to-understand* information on the visual milestones for children at all stages of life.</td>
</tr>
<tr>
<td></td>
<td>*Information is written at an appropriate reading level, provides graphics as well as descriptions, and has been tested for ease of understanding.</td>
</tr>
<tr>
<td>Yes  No</td>
<td>Our parent(s)/advisory committee(s) have reviewed our vision health information for, content, clarity of instruction, cultural literacy, and reading level (4th to 6th grade level).</td>
</tr>
<tr>
<td>Yes  No</td>
<td>We provide health information to parents of children with special healthcare needs that describe their increased risk for vision problems.</td>
</tr>
<tr>
<td>Yes  No</td>
<td>We have active Parent and Health Advisory Committees</td>
</tr>
</tbody>
</table>

12-Components of a Strong Vision Health System of Care

Our Children’s Vision Health System Action Plan

Directions: Review your responses from the program evaluation form and the notes written for each item. In all areas where “no” was the response selected, or your notes indicate a need for improvement, establish the next steps your program will take to improve efforts in that area. Once all responses have been accounted for, establish your top three priorities out of your needed actions, a date to review progress, and a completion date.

Needed actions:

Priority #1:

Priority #2:

Priority #3:

Visit http://nationalcenter.preventblindness.org/year-childrens-vision for information and resources that will help you improve your vision health program.
Vision and Eye Health

The National Center for Children’s Vision and Eye Health at Prevent Blindness has partnered with the NASN to provide national guidance for school nurses and others involved in front-line vision screening. The goal is to standardize approaches to vision health, facilitate follow-up eye care for children who do not pass vision screening, provide family-friendly educational information, and consult with leading pediatric eye care providers to promote best practices.

The content on this page is organized according to the 12 Components of a Strong Vision Health System of Care.

Background

Vision impairments are common and affect 1 in 20 preschool-aged children and 1 in 4 school-aged children (U.S. Preventive Task Force, 2004). A recent report concluded that there is adequate evidence that early treatment of amblyopia results in improved visual outcomes (Holmes, et al., 2011). In addition, optical correction of significant refractive error may be related to child development (Bironke, 2011) and improve school readiness (Roch-Léveque, Brody, Thomas, & Brown, 2006, Atkinson, et al., 2002).

With the focus on prevention, the Institute of Medicine (IOM) report, The Future of Nursing: Leading Change, Advancing Health Report Recommendations (2010), directs registered nurses to provide care within the full scope of their license. A comprehensive vision health program is a school nurse intervention that makes a significant measurable difference in a child’s overall health and learning.

12 Components of a Strong Vision Health System of Care

Search Journals Online

THE JOURNAL OF SCHOOL NURSING

NASN SCHOOL NURSE

Paperback Practice Tool

PRINCIPLES FOR PRACTICE: VISION SCREENING AND FOLLOW UP
Resources . . .
Vision Developmental Milestones Check-off Tool available at:

http://nationalcenter.preventblindness.org/publications-and-presentations

Reports and Information from Prevent Blindness

- Results from 2016 National Survey of Children's Health (NSCH)
- A complete list of public health reports available from Prevent Blindness
- Children's Vision and Eye Health: A Snapshot of Current National Issues
- Eye health and safety information
- Our Vision for Children's Vision, A National Call to Action for the Advancement of Children's Vision and Eye Health
- Prevent Blindness Statement on School-Aged Vision Screening and Eye Health Programs

- 18 Vision Development Milestones From Birth to Baby's First Birthday
- 18 Vision Development Milestones From Birth to Baby's First Birthday (SPANISH)
Provider education tools

Parent/family resources

Technical assistance

Professional Development

Communication tools

http://nationalcenter.preventblindness.org
Children’s Vision Health

How to Create a Strong Vision Health System of Care

by P. Kay Nottingham Chaplin, Jean E. Ramsey, and Kira Baldonado

The authors thank the members of the Advisory Committee for the National Center for Children’s Vision and Eye Health at Prevent Blindness for their support in the development of this article.

Research suggests that up to 1 in 20 preschool-aged children may have a vision problem that can lead to permanent vision loss if not detected and treated early — preferably before age 5 years (Calonge, 2004). Head Start, Early Head Start, and early childhood program vision screeners are in a perfect position to help find these children, who can then be referred to an eye care provider for diagnosis and treatment.

To assist front-line screeners, the brain receives clear, focused images from each eye. Any conditions that interfere with this development can cause vision loss known as amblyopia or “lazy eye.” Four common conditions that can lead to amblyopia include:

1. Misaligned eyes (i.e., strabismus): Eyes crossing consistently after age 4 to 6 months (American Academy of Ophthalmology, 2012).
Vision and Eye Health
Moving Into the Digital Age With Instrument-Based Vision Screening

P. Kay Nottingham Chaplin, EdD
Kira Baldonado, BA
Amy Hutchinson, MD
Bruce Moore, OD

Significant advancements in vision screening research are leading to improved design, functionality, and reliability of screening tools. Presently, two vision screening approaches are available to school nurses for children ages 3 years and older: optotype-based screening and instrument-based screening. Optotype-based screening pertains to tests of visual acuity using optotypes (e.g., pictures, letters, and numbers), which children identify to determine visual acuity. Instrument-based screening pertains to automated devices that measure amblyogenic risk factors, such as refractive error, media opacities, and eye misalignment. Differences between the two approaches, best and acceptable practice recommendations for have occurred in vision screening research, leading to improved design, functionality, and reliability of screening tools. Presently, two vision screening approaches are available to school nurses for children ages 3 years and older: optotype-based screening and instrument-based screening. Optotype-based screening pertains to tests of visual acuity using optotypes (e.g., pictures, letters, and numbers), which children identify to determine visual acuity. Instrument-based screening pertains to automated devices that measure amblyogenic risk factors, such as refractive error, media opacities, and eye misalignment. Differences between the two approaches, best and acceptable practice recommendations for

Instrument-Based Screening

Often referred to as devices, automated screening instruments, or automated vision screening devices, instrument-based screening uses automated technology to provide an estimation of refractive error and information about the presence and magnitude of abnormalities of the eyes (Miller & Lessin, 2012). Most instruments can be placed in two categories: photorefractor/photoscreening devices and handheld, portable autorefractors.

Year of Children’s Vision

• [http://nationalcenter.preventblindness.org/year-childrensvision](http://nationalcenter.preventblindness.org/year-childrensvision)

• Archived vision screening webinars in Resources
Resources to Support Families . . .

Financial Assistance Programs

Tips for Wearing Eye Glasses
https://www.preventblindness.org/your-childs-glasses

Parent Education

http://nationalcenter.preventblindness.org/resources-2
Call to Action

- Use the info you learned to screen vision.
- Evaluate your vision and eye health program.
- Help ensure follow-up to eye care when children do not pass vision screening.
Raise your hand if:

- You learned something new today.
- You found this presentation helpful.
- You will make at least one change in your vision health program for very young children.
Thank you for your TIME and ATTENTION. . .

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