Vision Screening:
Evidence-Based Options for Early Head Start

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Created by

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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.

*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

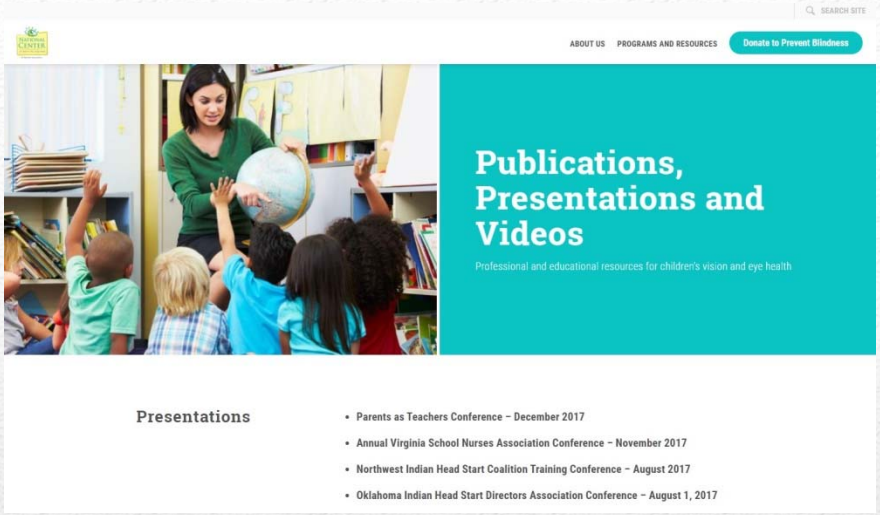
Instructions:

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.

 Version 8.18.18

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.

Child's Name: _____ DOB: _____ Age: _____

AGE *(Milestones may vary up to 6 weeks.)*	MILESTONE	QUESTIONS	NEXT STEPS
Birth through 1st month  Image from BabyCentre: https://www.babycentre.co.uk/l1048954/how-your-baby-learns-to-explore-photos *Picture 1 – Baby looks at object 8 to 15 inches away from face.*  Image from Zero to Three: https://www.zerotothree.org/resources/164-play-activities-for-birth-to-12-months *Picture 2 – Passing a patterned object within 8 to 15 inches of baby's face.*	1. Baby begins to focus on lights, faces, and objects 8 to 15 (20.32 – 38.1 cm) inches away from his/her face. 2. Baby begins to follow slowly moving lights, faces, and objects at near. **NEXT MILESTONE DURING AGE 2ND AND 3RD MONTHS**	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. 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.	❑ 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!

Home-Based Visitor/Nurse Signature: _____ Date: _____

Child's Name: _____ DOB:_____ Age:_____

AGE *(Milestones may vary up to 6 weeks.)*	MILESTONE	QUESTIONS	NEXT STEPS
During 2nd and 3rd months  Image from CDC: https://www.cdc.gov/ncbddd/actearly/milestones/photolibrary/2months.html *Picture 5 – Lively visual communication with social smile.*  Image from Lea Hyvärinen, MD, PhD http://www.lea-test.fi/index.html?start=en/assessme/lowvisio/index.html *Picture 6 – Baby turns head away from the parent.*	3. Baby begins to notice his/her hands. 4. Baby makes eye contact with parent or caregiver. 5. Baby follows moving lights, faces, people, and objects with both eyes together. 6. Baby has a social smile. **IF BABY IS AGE 3 TO 4 MONTHS, ALSO DO THE FOLLOWING MILESTONE**	3. Is baby aware of his/her hands during the 2nd month? ❑ Yes (pass). ❑ No (refer and move to Next Steps). 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. 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. 6. Is baby smiling at his/her parent or caregiver by age 3 months? ❑ 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 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! • 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!

Home-Based Visitor/Nurse Signature: _____ Date: _____

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

Child's Name: _____ DOB: _____ Age: _____

AGE *(Milestones may vary up to 6 weeks.)*	MILESTONE	QUESTIONS	NEXT STEPS
During 3rd and 4th months  http://www.howwemontessori.com/how-we-montessori/2011/07/grasping-and-in-hand-materials.html *Picture 7 – Baby becomes aware of hands.*  http://www.flynnleitch.com/2017/02/ *Picture 8 – Baby explores hands with mouth.*	7. Baby watches his/her hand movements. 8. Baby reaches for objects or parent's or caregiver's face. 9. Baby grasps and holds objects in his/her hands. 10. Baby brings objects to his/her mouth. 11. Baby moves eyes from person to person or object to object. **NEXT MILESTONE AT AGE 5 MONTHS**	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. 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. 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. Does baby bring objects to his/her mouth by age 4 months? ❑ Yes (pass). ❑ No (refer and move to Next Steps). 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).	❑ 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: _____

Child's Name: _____ DOB: _____ Age: _____

AGE *(Refer if eyes not straight by the 5th mo.)*	MILESTONE	QUESTIONS	NEXT STEPS
By 5th month  Image from: http://britishmuslim-magazine.com/wp-content/uploads/2016/07/baby.jpg\ *Picture 9 – Straight eyes.*  Image from: http://www.allaboutvision.com/conditions/strabismus.htm *Picture 10 - Inward constant strabismus example.*	12. Baby's eyes appear straight. 13. Neither of baby's eyes turn up, down, in, or out for several minutes at a time, either constantly* or intermittently** **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**	12. Are baby's eyes straight? ❑ Yes (pass). ❑ No, (refer and move to Next Steps). 13. Do either of baby's eyes ever appear to constantly or intermittently turn up, down, in, or out beginning at age 5 months? ❑ No (pass). ❑ Yes, (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.

Home-Based Visitor/Nurse Signature: _____ Date: _____

Child's Name: _____ DOB: _____ Age: _____

AGE *(Milestones may vary up to 6 weeks.)*	MILESTONE	QUESTIONS	NEXT STEPS
During 6th and 7th months  http://smartmomcenter.com/when-do-babies-crawl/ *Picture 11 – Goal-directed hand arm movement to reach toy.*  http://www.fisher-price.com/en_US/playtime-guide/6-months/index.html *Picture 12 – Goal-directed hand arm movement to reach toy.*	14. Baby purposefully reaches for objects. 15. Baby follows objects with both his/her eyes at near (1 foot [30.48 cm]) and far (greater than 6 feet [182.88]). **NEXT MILESTONE AT AGE 8 MONTHS**	14. Does baby purposefully reach for objects baby wants? ❑ Yes (pass). ❑ Not Yet (rescreen within 6 weeks). Date for rescreen: _____ ❑ If "No" after rescreening, move to Next Steps. 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? ❑ 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 Three Early Intervention program. ❑ Activities parents and caregivers can do: • 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. ▪ 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!

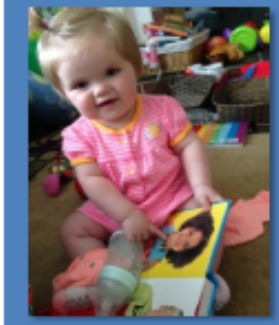
Home-Based Visitor/Nurse Signature: _____ Date: _____

Child's Name: _____ DOB: _____ Age: _____

AGE *(Milestones may vary up to 6 weeks.)*	MILESTONE	QUESTIONS	NEXT STEPS
During 8th, 9th, or 10th months  Image from: http://www.mirror.co.uk/news/world-news/tear-jerking-moment-baby-boy-10015286 *Picture 13 – Wearing glasses, baby now recognizes his parent.*  Image from: https://www.whattoexpect.com/first-year/feeding-baby/best-finger-foods-for-babies/#04 Picture 14 – Baby looks at small object.	16. Baby recognizes family and/or caregiver faces. 17. Baby looks at small objects, such as cereal or a raisin. **NEXT MILESTONE AT AGE 11 MONTHS**	16. Does baby recognize family members and/or caregivers and have a welcoming smile before hearing his/her voices or seeing his/her smiles? ❑ Yes (pass) ❑ Not yet (rescreen at age 9 months) Date for rescreen: ❑ Rescreening at age 9 months. ❑ Yes (pass) ❑ Not yet (rescreen at age 10 months) Date for rescreen: ❑ Rescreening at age 10 months. ❑ Yes (pass) ❑ No (refer and move to Next Steps). 17. Does baby look at small objects, such as cereal or a raisin? ❑ Yes (pass) ❑ Not yet (rescreen at age 9 months) Date for rescreen: ❑ Rescreening at age 9 months. ❑ Yes (pass) ❑ Not yet (rescreen at age 10 months) Date for rescreen: _____ ❑ Rescreening at age 10 months. ❑ 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: • Wear the same colorful blouse/shirt when greeting baby each morning. • Use the same phrase when approaching your baby, such as "Here comes XXX" or "Hi XXX". • Say the names of family members. Ask "Where is Mommy?" Give baby time to look and locate Mommy's face. • Provide lots of face-to-face opportunities for interacting. Repeating these opportunities will help you baby visually tell the difference between faces and objects. • Have your baby look at his/her own face in a mirror. • Play Peek-a-Boo.

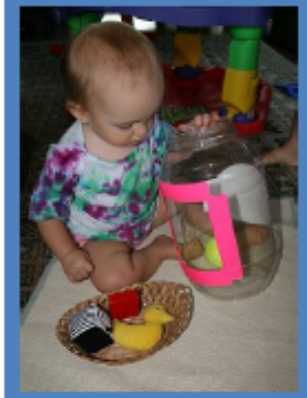
Home-Based Visitor/Nurse Signature: _____ Date: _____

Child's Name: _____ DOB: _____ Age: _____

AGE *(Milestones may vary up to 6 weeks.)*	MILESTONE	QUESTIONS	NEXT STEPS
During 11th and 12th months  https://www.ecda.gov.sg/growatbeanstalk/Pages/Understandingandlearningabouttheworld_Birthto2years.aspx *Picture 15 – Baby points to picture in a book.*  https://twintalkblog.net/tag/11-month-old-twins/ *Picture 16 – Baby points to picture in book.*	• *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. **MOVE TO NEXT MILESTONE IF BABY IS NOT EXPOSED TO BOOKS**	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.

Home-Based Visitor/Nurse Signature: _____ Date: _____

Child's Name: _____ DOB: _____ Age: _____

AGE *(Milestones may vary up to 6 weeks.)*	MILESTONE	QUESTIONS	NEXT STEPS
During 11th and 12th months  **Image from: http://chasingcheerios.blogspot.com/2010/09/putting-objects-in-large-container.html** **Picture 17 – Baby looking for object in container.**	• *Use this milestone if baby has <u>not</u> been exposed to books:* 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.

Home-Based Visitor/Nurse Signature: _____ Date: _____

Child's Name: _____ DOB: _____ Age: _____

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	❑ Pass	❑ 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	❑ Pass	❑ 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:			
	❑ Pass	❑ Refer health care provider ❑ Refer EI		
4. Does baby look directly at parent's or caregiver's eyes?	Screen Date:		Rescreen Date:	
	❑ Pass	❑ Rescreen	❑ 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	❑ Rescreen	❑ Pass	❑ Refer health care provider ❑ Refer EI
6. Is baby smiling at his/her parent or caregiver by age 3 months?	Screen Date:			
	❑ Pass	❑ Refer health care provider ❑ Refer EI		

Home-Based Visitor/Nurse Signature: _____ Date: _____

Expert Contributors:

Sandra Block, OD, Med, MPH, FAAO, FCOVD

- 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

- Assistant Professor of Ophthalmology, Wilmer Eye Institute, Johns Hopkins Medicine
- A Principle Investigator of BREDS, Vision for Baltimore, and Vision for Chicago

Susan Cotter, OD, MS, FAAO

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Anne S. Nielsen, PhD

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Resources Consulted:

Chen, D., Calvello, G., & Taylor, C. (2015). *Parents and his/her infants with visual impairments (PAIVI)* (2nd ed.). Louisville, KY: American Printing House for the Blind, Inc.

Donahue, S. P., Baker, C. N., AAP Committee on Practice and Ambulatory Medicine, AAP Section on Ophthalmology, American Association of Certified Orthoptists, American Association for Pediatric Ophthalmology and Strabismus, American Academy of Ophthalmology (2016). Procedures for the evaluation of the visual system by pediatricians. *Pediatrics, 137*(1), e20153597. Retrieved from http://pediatrics.aappublications.org/content/pediatrics/early/2015/12/07/peds.2015-3597.full.pdf

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Trubo, R. (2014). *The complete and authoritative guide. Caring for your baby and young child: Birth to age 5.* S. P. Shelov, T. R. Altmann & R. E. Hannemann (Eds.). (6th ed.). New York, NY: Bantum Books

Let's Try Using the Vision Development Milestones Tool

Using the Milestones Tool – Case Profile #1

- 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

Using the Milestones Tool – Case Profile #2

- 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

Using the Milestones Tool – Case Profile #3

- 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

Years 1 and 2 - Vision Screening Tools

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

Donahue, S. P., Baker, C. N., AAP Committee on Practice and Ambulatory Medicine, AAP Section on Ophthalmology, American Association of Certified Orthoptists, American Association for Pediatric Ophthalmology and Strabismus, American Academy of Ophthalmology (2016). Procedures for the evaluation of the visual system by pediatricians. *Pediatrics, 137*(1), e20153597. Retrieved from http://pediatrics.aappublications.org/content/pediatrics/early/2015/12/07/peds.2015-3597.full.pdf

Instruments Vetted by NCCVEH

Welch Allyn®
Spot™ Vision Screener

Welch Allyn®
SureSight™
Vision Screener

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

Plusoptix
S12C Vision Screener

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.

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

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: _____

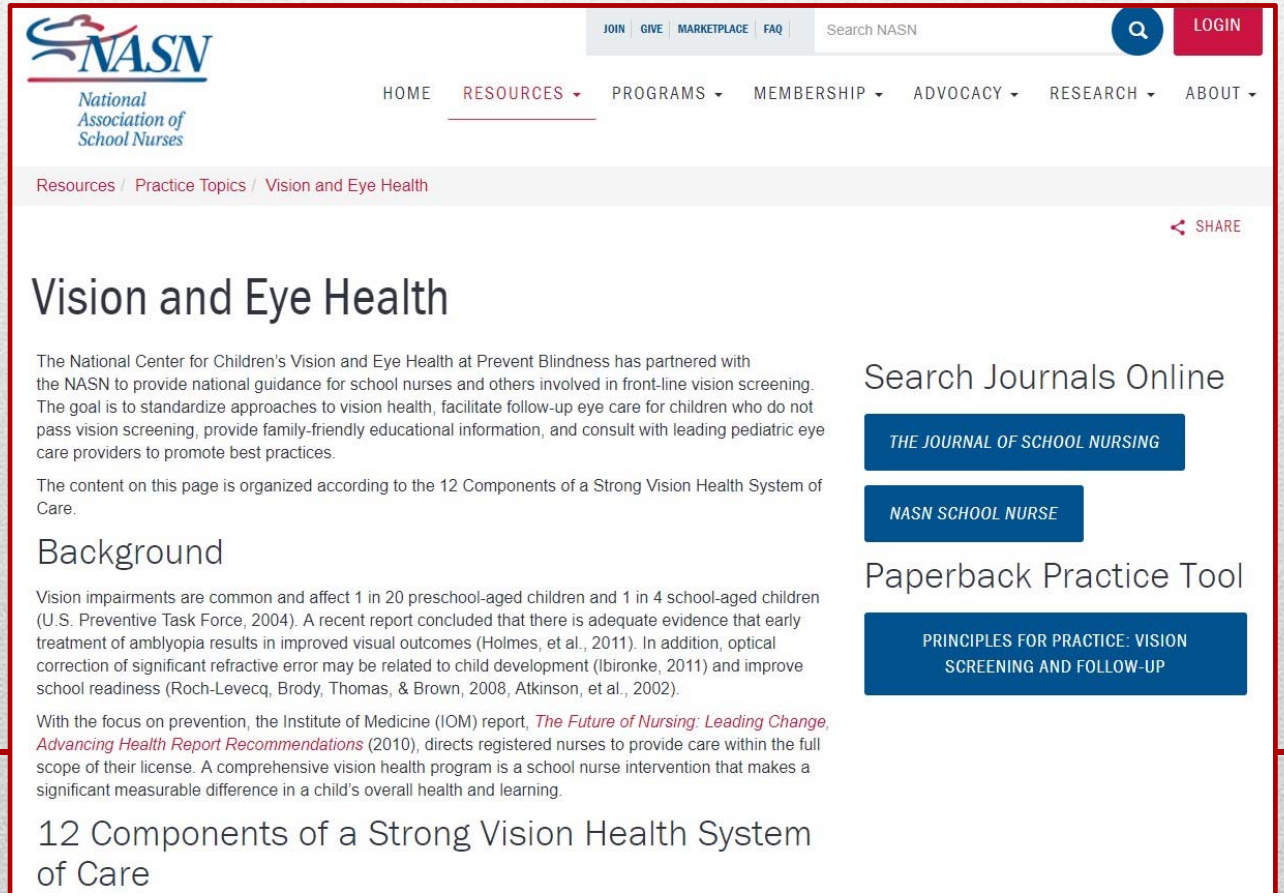
Visit http://nationalcenter.preventblindness.org/year-childrens-vision for information and resources that will help you improve your vision health program.

https://www.nasn.org/nasn-resources/practice-topics/vision-health

NASN Vision and Eye Health Resource

(National Center for Children's Vision and Eye Health and NASN partnership)

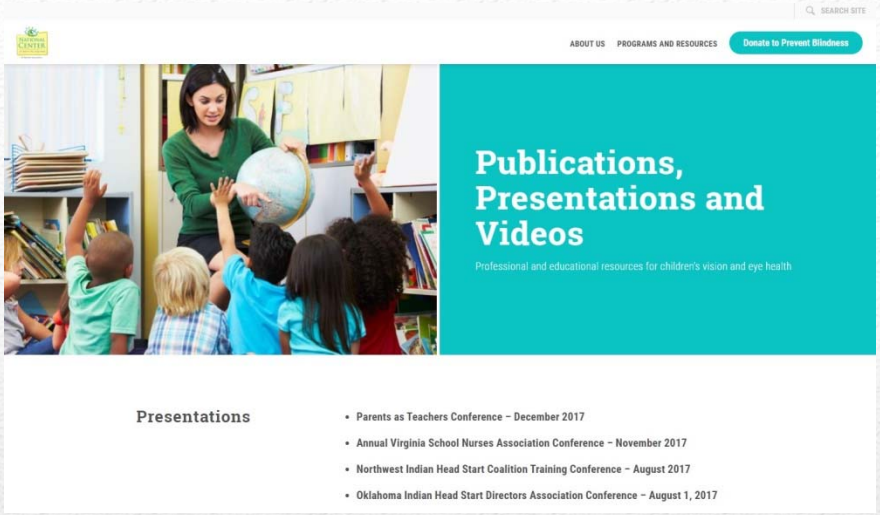
https://www.nasn.org/nasn-resources/practice-topics/vision-health



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

VISION SCREENING FACT SHEET

NATIONAL CENTER ON Early Childhood Health a

Parents[1] and early care and education staff cannot always tell when a child has trouble seeing. Observation alone isn't enough. This is why implementing evidence-based vision screening throughout early childhood is important.

Introduction

Children use all their senses to learn. Children's play with puzzles, crayons, balls, and blocks can improve important visual skills. These skills contribute to a child's school readiness. An uncorrected vision problem can be a barrier to this readiness.

Timely vision screening (coupled with an eye examination[2] when indicated) is an important step toward early detection of any possible vision problems. Early detection can lead to an effective intervention and help to restore proper vision. Young children rarely complain when they can't see well because to them, it's normal.

Evidence-based Vision Screen

Evidence-based is an umbrella term that use of the best research evidence (found sciences literature) and clinical expertise health care providers know).

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

An evidence-based vision screening is a identify children who need an evaluation vision and eye health. Head Start and Ea Start programs are required to obtain or evidence-based vision screening.

45 CFR §1302.42 Child health status and 3) Ensuring up-to-date child health statu

(2) Within 45 calendar days after the chi attends the program or, for the homebas option, receives a home visit, a program either obtain or perform evidence-based hearing screenings.

(3) If a program operates for 90 days or l days from the date the child first attends to satisfy paragraphs (b)(1) and (2) of th

https://eclkc.ohs.acf.hhs.gov/policy/45-c xiii/1302-42-child-health-status-care.

Health managers may begin by looking a most recent physical for the date and resu

Pruebas de la vista: Ficha técnica de los programas de educació y cuidado tempranos

Updated Spanish Fact Sheet coming soon

Introducción

Los niños usan todos sus sentidos para aprender. Jugar con rompecabezas, crayones, pelotas y bloques puede mejorar las habilidades visuales importantes. Estas habilidades contribuyen con la preparación escolar de los niños. Un problema de la vista sin corregir puede ser una barrera para esta preparación.

Las pruebas de la vista realizadas de manera oportuna (junto con un examen ocular[1] cuando se indica) son un paso importante hacia la detección temprana de cualquier problema de la vista posible. La detección temprana también puede contribuir a una intervención eficaz y a restaurar una visión adecuada. Los programas Head Start y Early Head Start, en colaboración con los padres de familia,[2] deben cumplir con el requisito de realizarles pruebas de la vista a los niños en un plazo de 45 días naturales desde la entrada del niño al programa, o de obtener los resultados de las pruebas de la vista en ese plazo (30 días para programas de menor duración)[3].

Los administradores de salud pueden comenzar por observar el examen físico más reciente y los resultados de una prueba de la vista del niño. Muchos programas también deciden realizar sus propias pruebas de la vista. Algunas razones pueden ser las siguientes:

- El niño fue poco cooperativo para la realización de una prueba anterior.
- Los resultados de la prueba de la vista del niño no se encuentran disponibles.
- Un familiar o un miembro del personal informan una inquietud respecto de la vista del niño.
- El Comité Asesor de los Servicios de Salud

Los programas pueden realizar pruebas de la vista en cualquier momento, como antes o durante las primeras semanas de un nuevo año del programa cuando muchos niños ingresan al mismo tiempo. El personal o los voluntarios capacitados pueden realizar pruebas de la vista. Los programas pueden comunicarse con Prevent Blindness, que tiene un programa de capacitación y certificación sobre pruebas de la vista. Prevent Blindness y sus filiales ponen a disposición esta capacitación. Otros grupos comunitarios calificados también pueden realizar pruebas de la vista empíricas según la edad. Algunos programas han trabajado con grupos comunitarios voluntarios como los siguientes:

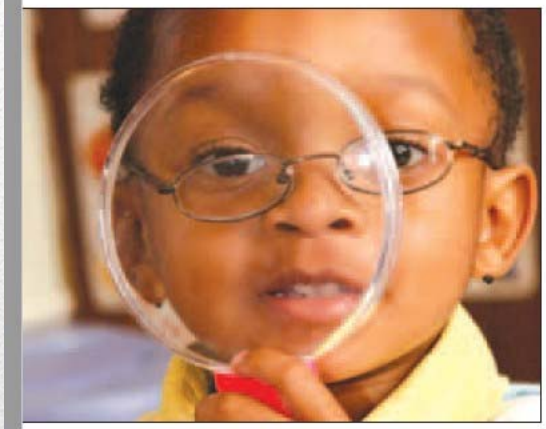
- Clubes de Leones
- Organizaciones estatales o comunitarias
- Escuelas de medicina o programas de capacitación oftalmológica

ning o diagnostico cualquier afección o enfermedad de la vista y establece un tratamiento.
bas las personas que pueden tener una función de crianza en la vida de un niño, como los abuelos
que cumplen la función de brindarle cuidados, y los padres de acogida.
el niño entra al aula o comienza a participar en una opción de programa de cuidado infantil familiar

La preparación para la escuela empieza con la salud.

l de Salud Head Start: 888-227-5125 Correo electrónico: health@ecetta.info PÁGINA 1 DE 6

Download at:
https://eclkc.ohs.acf.hhs.gov/physical-health/article/vision-screening



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.

Madison, a child enrolled in Head Start, did not pass a vision screening and received glasses after a follow-up eye exam. When she returned to her classroom with her new glasses, Madison walked into the room and looked around. A picture of a giraffe on the wall caught her attention. She walked to the picture, looked at the giraffe, turned to her teacher, and said, "I didn't know giraffes had eyes!"

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).

https://georgia.preventblindness.org/sites/default/files/georgia/documents/Exchange%20Magazine%20article.pdf

Screening/Referral

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.

This article describes tools and techniques for school nurses to screen

attempt screening if classmates may consider these children as "outcasts" because they are not included in screening activities.

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: photorefraction/photoscreening devices and handheld, portable autorefractors.

Nottingham Chaplin, P. K., Baldonado, K., Hutchinson, A., & Moore, B. (2015). Vision and eye health: Moving into the digital age with instrument-based vision screening. *NASN School Nurse, 30*(3), 154-60.

Year of Children's Vision

- http://nationalcenter.preventblindness.org/year-childrens-vision
- *Archived vision screening webinars in Resources*

Resources to Support Families . . .

Financial Assistance Information

Prevent Blindness
Our Vision Is Vision®

Association of Schools and Colleges of Optometry
6110 Executive Boulevard, Suite 510
Rockville, Maryland 20852
Phone: (301) 231-5944
Fax: (301) 770-1828
www.opted.org

Many optometry schools offer low-cost care to people willing to be treated by supervised students. They may also provide free care to people who join research studies.

Chronic Disease Fund
6900 N. Dallas Parkway, Suite 200
Plano, TX 75024
Toll-free Patient Info: (877) 968-7233
Main: (972) 608-7141
www.cdfund.org

Chronic Disease Fund® is an independent 501(c)(3) non-profit charitable organization helping patients with chronic disease, cancers or life-altering conditions obtain the expensive medications they need.

Fax: (415) 561-8567
www.eyecareamerica.org

EyeCare America provides eye care to US citizens and legal residents through volunteer ophthalmologists (Eye M.D.s) at no cost to those who qualify. Go to the website or call to find out if you qualify for eye care. EyeCare America facilitates eye care for U.S. citizens or legal residents who are without an Eye M.D. and who do not belong to an HMO or do not have eye care coverage through the Veterans Administration.

- ***Those who are age 65 or older and who have not seen an EyeMD in three or more years may be eligible to receive a comprehensive, medical eye exam and up to one year of care at no out-of-pocket cost for any disease diagnosed during the initial exam.*** *Volunteer ophthalmologists will waive co-payments, accepting Medicare and/or other insurance reimbursement as payment in full: patients without insurance receive this care at no charge.*

211 West Wacker Drive
Suite 1700
Chicago, Illinois 60606
800.331.2020
PreventBlindness.org

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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