

## ***First Look: Vision Screening for Infants Viewer's Guide and Selected Resources***

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To watch the *First Look: Vision Screening for Infants* video, go to: [kanlovkids.kssdb.org](http://kanlovkids.kssdb.org) and click onto the webcasts link. This video and viewer's guide are intended as flexible training materials that can be tailored to address the individual needs of learners. The video may be paused after each topic for viewers to discuss questions or activities provided in the viewer's guide.

### ***LEARNING OBJECTIVES***

After viewing this program, the viewer should be able to:

1. List factors that contribute to delays in the early diagnosis of vision impairment;
2. List typical and unusual visually related behaviors in infancy;
3. Describe physical and behavioral indicators that constitute reasons to refer an infant or toddler to a pediatric ophthalmologist or optometrist who has experience with children who are birth through three;
4. Identify diagnoses that are associated with visual impairment;
5. Define common terms used to describe vision loss;
6. Describe the hierarchy of vision function;
7. Identify the roles and responsibilities of medical and educational vision specialists/professionals;
8. List six basic visual skills involved in a task; and
9. Identify behaviors related to vision use during the first 12 months of age.

### ***DIRECTIONS***

View the first section of this program that highlights the need for early identification of vision problems in babies and outlines risk factors related to visual impairments.

After a brief introduction, the content of the first section (< 12 minutes) of the video addresses the topics identified in the guiding questions that follow.

### ***GUIDING QUESTIONS AND LEARNING ACTIVITIES***

1. How does uncorrected myopia or hyperopia affect a child's vision?
  
  
  
  
  
  
  
  
  
  
2. What are the recommendations of the American Academy of Ophthalmology, the American Academy of Pediatrics, and the American Association for Pediatric Ophthalmology and Strabismus, and the American Optometric Association related to vision screening for infants and toddlers?

3. What factors may contribute to delays in the early diagnosis of visual impairments in infancy?
4. What are typical visually related behaviors in infants?
5. What are unusual visually related behaviors that indicate a need for a referral to a pediatric ophthalmologist or optometrist?
6. What diagnoses place an infant at risk for visual impairment?
7. Define functional vision, legal blindness, low vision, light perception, and no light perception.
8. Look at the chart and describe the range of visual acuity levels in the hierarchy of vision function. (Refer to *Hierarchy of Vision Function* handout)
9. What is cortical vision impairment (CVI)?

For further information about CVI, at the end of this document, see **SELECTED RESOURCES ON CORTICAL VISUAL IMPAIRMENT**

10. Identify the roles and responsibilities of medical and educational vision professionals/specialists specific to your state

**DIRECTIONS**

View the segment of the program on basic visual skills (2 minutes) in the first year of development and complete the following:

1. What are the six basic visual skills?
  - a.
  - b.
  - c.
  - d.
  - e.
  - f.
2. Select a typical routine activity (e.g., play, eating) and provide an example of how an infant or toddler might demonstrate each skill by participating in this activity.

**DIRECTIONS**

The second part of the video (< 6 minutes) illustrates early visual skills. View the section on Developmental Sequence of Early Visual Skills -- *Developmental Vision Screening Checklist* (assesses visual and cognitive skills up to about 12 months of development) from the *PAIVI materials* and answer the following questions based on your observations. Remember to draw on the caregiver's knowledge of how best to elicit target behaviors in an individual infant by using high preference activities and items. After completing the *Developmental Vision Screening Checklist* below, be certain to consider which of the six basic visual skills listed above that the child demonstrates, is emerging, or does not show at this time.

**BIRTH-1 MONTH**

1. Does the baby stare at the caregiver's face? What does the caregiver do?
2. Does the baby track or follow movement around the room?
3. Does the baby stare at a light source?

Briefly describe a "target" infant at this developmental level. Identify what you would do to elicit these visual behaviors with this particular infant.

## **2 MONTHS**

1. Does the baby make eye contact?
2. How does the baby respond to normal and exaggerated lip movements?

Briefly describe a “target” infant at this developmental level. Identify what you would do to elicit these visual behaviors in a particular infant.

## **3-6 MONTHS**

1. Does the baby watch her own hands?
2. Does the baby shift gaze back and forth between objects?
3. How does the baby respond to looking in a mirror?
4. Does the baby reach towards the caregiver’s face?
5. Does the baby visually follow the rolling ball?
6. Does the baby reach for and grasp the ring?

Briefly describe a “target” infant at this developmental level. Identify what you would do to elicit these visual behaviors in a particular infant.

## **7-10 MONTHS**

1. Does the baby look at a very small object?
2. Does the baby watch the caregiver scribbling on paper?
3. How does the baby respond to pictures in a book?

Briefly describe a “target” infant at this developmental level. Identify what you would do to elicit these behaviors in a particular infant.

## **11- 12 MONTHS**

1. How does the baby respond to an object in a container?
2. How does the baby respond to familiar objects across the room?

Briefly describe a “target” infant at this developmental level. Identify what you would do to elicit these behaviors in a particular infant.

## **ACTIVITIES FOR TEAM DISCUSSION**

1. Service providers and administrator(s) of your early intervention program need to discuss how and who will use the Developmental Sequence of Early Visual Skills to assess infants and toddlers suspected of a visual problem/impairment.
  2. Service providers and administrator(s) of your early intervention program need to discuss and find out about the criteria and procedures for referring infants for vision evaluations with a pediatric ophthalmologist or optometrist with experience with children who are birth through three years of age.
  3. Service providers and administrator(s) of your early intervention program will invite a teacher certified to teach young children with visual impairments (TVI) and a certified orientation and mobility specialist (COMS) to talk about their specific roles and responsibilities on the early intervention team and strategies they have found effective in working with infants and toddlers with visual impairments and their families.
  4. Service providers and administrator(s) of your early intervention program need to discuss how your program will access a TVI and/or COMS to serve on the team for an infant or toddler with a visual impairment and his/her family.
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## **RESOURCES**

### **SELECTED WEBSITES**

American Association for Pediatric Ophthalmology and Strabismus (AAPOS)  
[www.aapos.org](http://www.aapos.org)

American Foundation for the Blind  
[www.afb.org/](http://www.afb.org/)

American Printing House for the Blind  
[www.aph.org/](http://www.aph.org/)

Family Connect for parents of children with visual impairments  
<http://www.familyconnect.org/parentsitehome.aspx>

Perkins School for the Blind  
[www.perkins.org](http://www.perkins.org)

Texas School for the Blind and Visually Impaired  
[www.tsbvi.edu](http://www.tsbvi.edu)

## **SELECTED RESOURCES ON CORTICAL VISUAL IMPAIRMENT**

American Printing House for the Blind  
<http://tech.aph.org/cvi/>

Dutton, G.N. (2013). Types of impaired vision in children related to damage to the brain, and approaches towards their management. *Journal of the South Pacific Educators in Vision Impairment*, 6(1), 14-30.

Dutton, G., & Bax, M. (Eds.). (2010). *Visual impairment in children due to damage to the brain*. London, England: Mac Keith Press.

Lueck, A.H. & Dutton, G.N. (Eds.). (2015). *Vision and the brain: Understanding cerebral visual impairment in children*. New York, NY: AFB Press

Lueck, A.H. (2010). Cortical or cerebral visual impairment in children: A brief overview. *Journal of Visual Impairment and Blindness*, 104, 585-592.

Roman- Lantzy, C. A. & Lantzy, A. (2010). Outcomes and opportunities: A study of children with cortical visual impairment. *Journal of Visual Impairment & Blindness*, 104, 649-653.

Roman, C., Baker-Nobles, L., Dutton, G.N., Luiselli, T. E., Flener, B.S., Jan, J. E., Lantzy, A., Nielsen, A. S. (2010). Statement on cortical visual impairment. *Journal of Visual Impairment & Blindness*, 104, 69-72.

Roman-Lantzy, C. (2007). *Cortical visual impairment: An approach to assessment and intervention*. New York, NY: AFB Press.

### **Sources of Information for First Look Video**

Chen, D., Calvello, G., & Friedman, C. T. (2015). Identifying visual impairments in very young children. In *PAIVI: Parents and their infants with visual impairments* (2nd ed.) (pp. 83-101). Louisville, KY: American Printing House for the Blind.

Chen, D., & Orel-Bixler, D. (1997). *Vision tests for infants* [DVD]. New York: American Foundation for the Blind Press.

Morgan, E.C. (Ed.) (1974). *Resources for family centered intervention for infants, toddlers, and preschoolers who are visually impaired: VIISA Project*. Logan, UT: SKI-HI Institute, HOPE Inc.

Watkins, S. (Ed.). (1989). *The INSITE Model. A model of home intervention for toddlers and preschool multihandicapped sensory impaired children*. Logan, UT: SKI-HI Institute HOPE Inc.

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