

(DATE)

# (1) COUNTY CHILD HEALTH NOTES

Promoting early identification and partnerships between families, primary health care providers & the community.

Distributed by: (2)

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## Risk Factors for Vision Problems:

- Less than 1500 grams at birth
- History of maternal "TORCH" infection during pregnancy
- Family history of conditions causing or associated with eye problems (e.g. retinoblastoma, congenital cataract, glaucoma, strabismus, amblyopia)
- Neurological and developmental disorders or systemic disease
- Use of medications associated with eye or vision abnormalities

## VISION SCREENING FOR INFANTS AND TODDLERS

One in twenty children between 6 months and 5 years of age has a serious eye disorder. The first three years of life are critical in the development of good vision. Amblyopia and other ophthalmologic disorders can be detected early and visual impairment can be lessened or prevented. Eye and vision screening is recommended at birth, approximately 6 months of age, 3 years, and 5 years, as well as any time a concern arises (the American Academy of Ophthalmology and the American Association for Pediatric Ophthalmology).

## DID YOU KNOW SOME COMMUNITY PROGRAMS SCREEN FOR VISION PROBLEMS IN INFANTS AND TODDLERS?

Children participating in Early Head Start, Head Start, and Early Childhood Education and Assistance Program (ECEAP) are required to have documentation of vision screening. Personnel sometimes reports difficulty obtaining results of eye examinations on young children from primary care offices. Many of these programs are exploring on-site vision screening using a targeted history and observation. Some early educators and public health nurses are using a new technology called "photo-screening" (a Polaroid-based technique to examine the eyes based on the red reflex) to comply with program requirements. You may see referrals to your office due to a concern identified from a community-based screening.

## WHAT MIGHT YOU DO IN YOUR PRACTICE?

- **Be familiar with the risk factors** for vision problems (see box)
- **Educate parents about signs of eye problems** that require further evaluation:
  - Misaligned eyes or poor visual fixation
  - Light sensitivity
  - Ocular discharge
  - Persistent redness
  - Persistent tearing
  - Nystagmus
- **Include a vision history and examination** at well-child visits beginning at infancy:
  - Fixation and following
  - Red reflex
  - Nystagmus
  - Asymmetries
  - Ocular misalignment (strabismus)
  - Visual acuity abnormalities
  - Structural defects (urgent referral required for opacities of the ocular media)

- **Strabismus** can be evaluated by the corneal light reflex symmetry, the cover-uncover test, or the Bruekner test (corneal light reflex examination through an ophthalmoscope from 4-6 feet away in a darkened room).
- **Visual acuity** in infants and young children is most accurately determined by "preferential looking tests" (Teller Acuity Card test). See Reference # 1 for information on screening in children 3 years and older.
- **Photo-screening** is an emerging technology, but further refinement and adequate validation studies are needed before it becomes accepted for universal visual screening of infants. (See Reference # 1)

## References:

1. *Preschool Vision Screening: Summary of a Task Force Report*. Hartmann EE et al. Pediatrics. 2000 Nov; 106(5):1105-1116.
2. American Academy of Ophthalmology, September 1997. Preferred practice patterns (available at the National Guideline Clearinghouse on line).
3. *The Eye in Childhood*. Mills MD. American Family Physician. 1999; 60:907-18.