

# Vision & Development in Infants & Toddlers

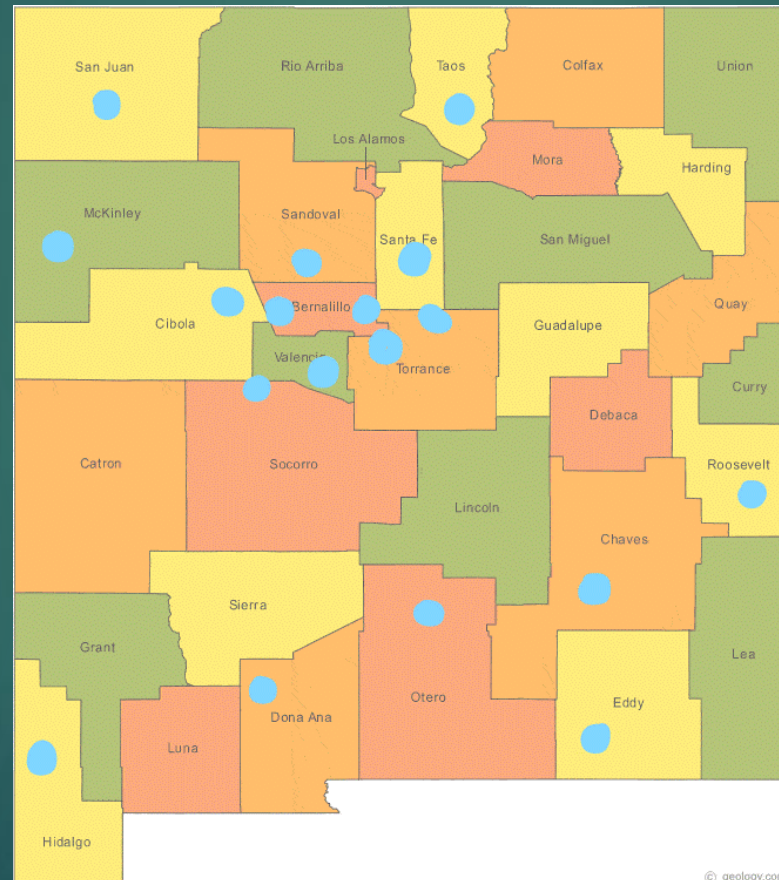
A LOOK AT HOW VISION DEVELOPS AND WHAT  
TO DO WHEN THERE ARE CONCERNS



801 Stephen Moody SE, Albuquerque, NM 87123 / Phone: 505-271-3060



# 18 Developmental Vision Specialists covering the state



# New Mexico School for the Blind and Visually Impaired

- ▶ Birth –3 FIT Program
- ▶ Outreach Program (Statewide)
- ▶ Early Childhood Program (Albuquerque)
- ▶ NMSBVI Residential School (Alamogordo)



# Additional programs and resources

- ▶ Low Vision Clinic
- ▶ Summer Programs
- ▶ Short Term Programs
- ▶ Instructional resource center (IRC)
- ▶ Assistive Technology



# Birth – Three Services

- ▶ Functional Vision Evaluations to determine need for services
- ▶ Learning Media Assessments to determine both the sensory channels a child prefers for learning and to establish the need for Braille instruction
- ▶ Orientation and Mobility Evaluation to determine need for services
- ▶ Consultation/participation in developmental assessments with EI agencies as well as with other community service providers
- ▶ Support for parents, including the support needed to find a pediatric ophthalmologist for a diagnosis.
- ▶ Direct services to the child & family, including services from a developmental vision specialist and/or orientation and mobility specialist



A Short  
Clip About  
the Visual  
System

# What is Functional Vision?

We are assessing:

- ❖ Visual Attention: what does your child notice or not notice in their world?
- ❖ Visual Communication: does your child smile at you, imitate your actions, acts differently with strangers?
- ❖ Visual-Motor Coordination: how does your child track and reach for toys?
- ❖ Visual Processing: Does your child pick up and manipulate objects showing interest in them?

# Typical Developmental Vision Sequence:

A newborn's visual system, although immature, is ready to function at birth.

Most newborn infants can focus on objects at a distance of 2.5 feet, and attention improves with age.

Some capabilities such as Acuity, Accommodation, Motion Detection, and Color Vision approach near adult-levels in the first 6 months of life.

Visual Fields, Depth Perception, and Contrast Sensitivity reach adult levels by preschool/school age.

- Luek, A.H., Chen, D., et al.



# What Services Can Look Like



# Red Flags: When to seek more information

DIAGNOSED VISUAL  
IMPAIRMENT

SIGNIFICANT  
MEDICAL HISTORY,  
I.E. SYNDROME, ANY  
KIND OF BRAIN  
DAMAGE

PREMATURITY

EXPOSURE DURING  
PREGNANCY

IMMEDIATE FAMILY  
HISTORY OF  
CHILDHOOD VISION  
LOSS

APPEARANCE OF  
EYES

BEHAVIORS THAT  
ARE OFTEN  
ASSOCIATED WITH A  
VISUAL IMPAIRMENT

# Appearance of the Eyes

- ▶ Absence of the eyes moving together
- ▶ Difference in eyes (shape, size, pupils etc.)
- ▶ Jerky eye movements
- ▶ Excessive tearing
- ▶ Droopy eyelids
- ▶ Cloudy or milky appearance
- ▶ Eye turn (sustained)

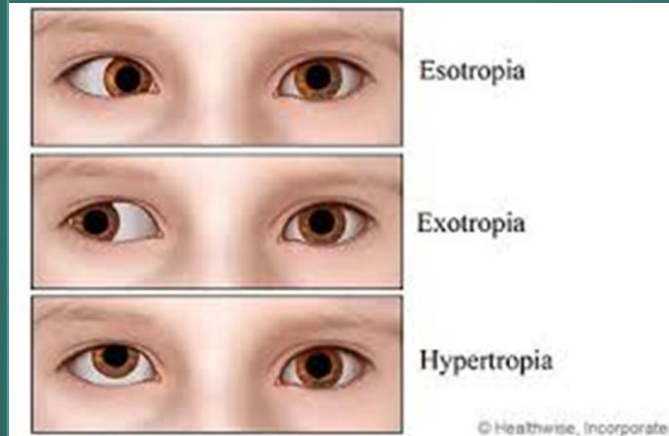


# Appearance of the Eyes

## Ptosis



## Strabismus



## Pseudostabismus



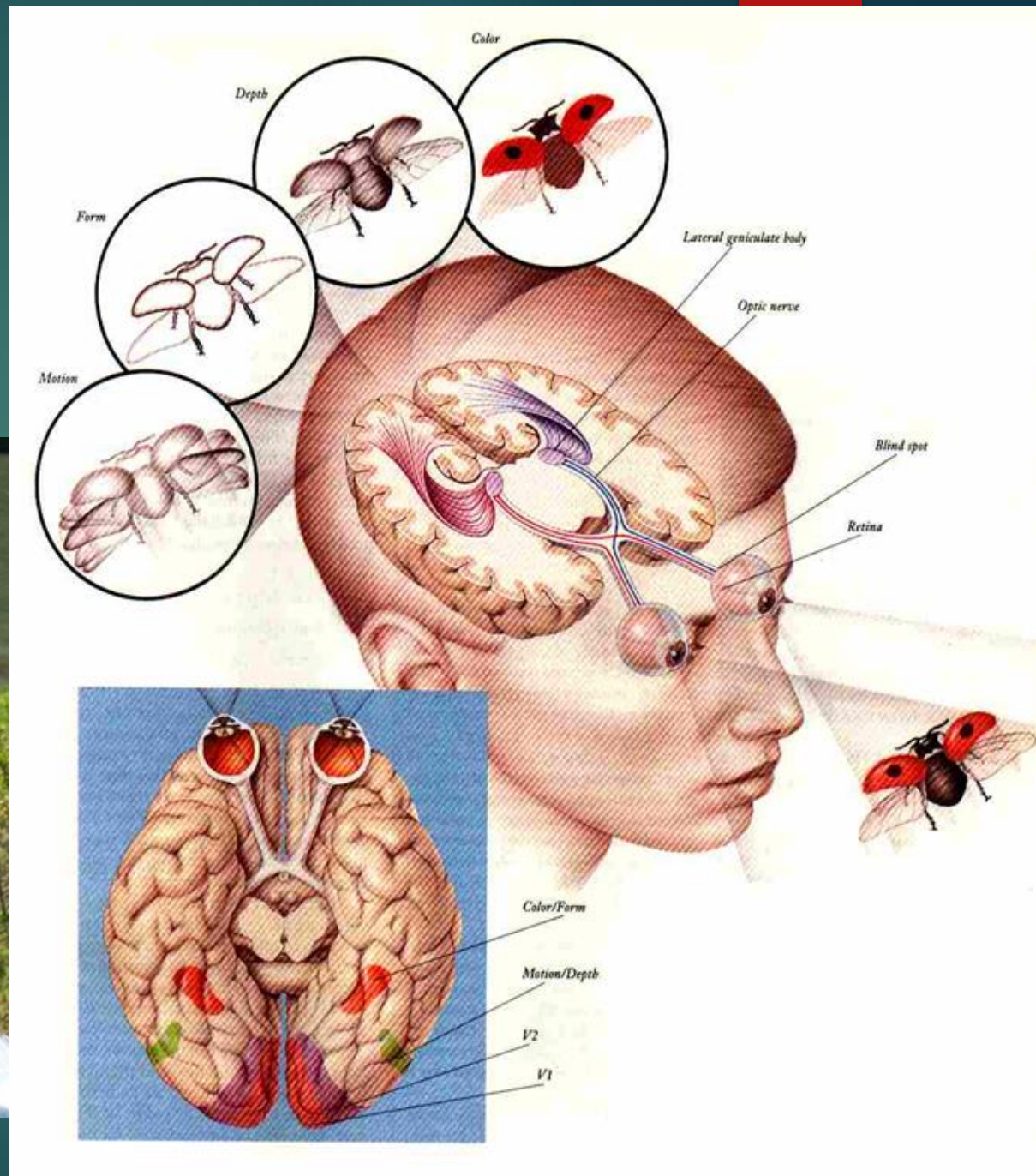
# Differences in the pupil



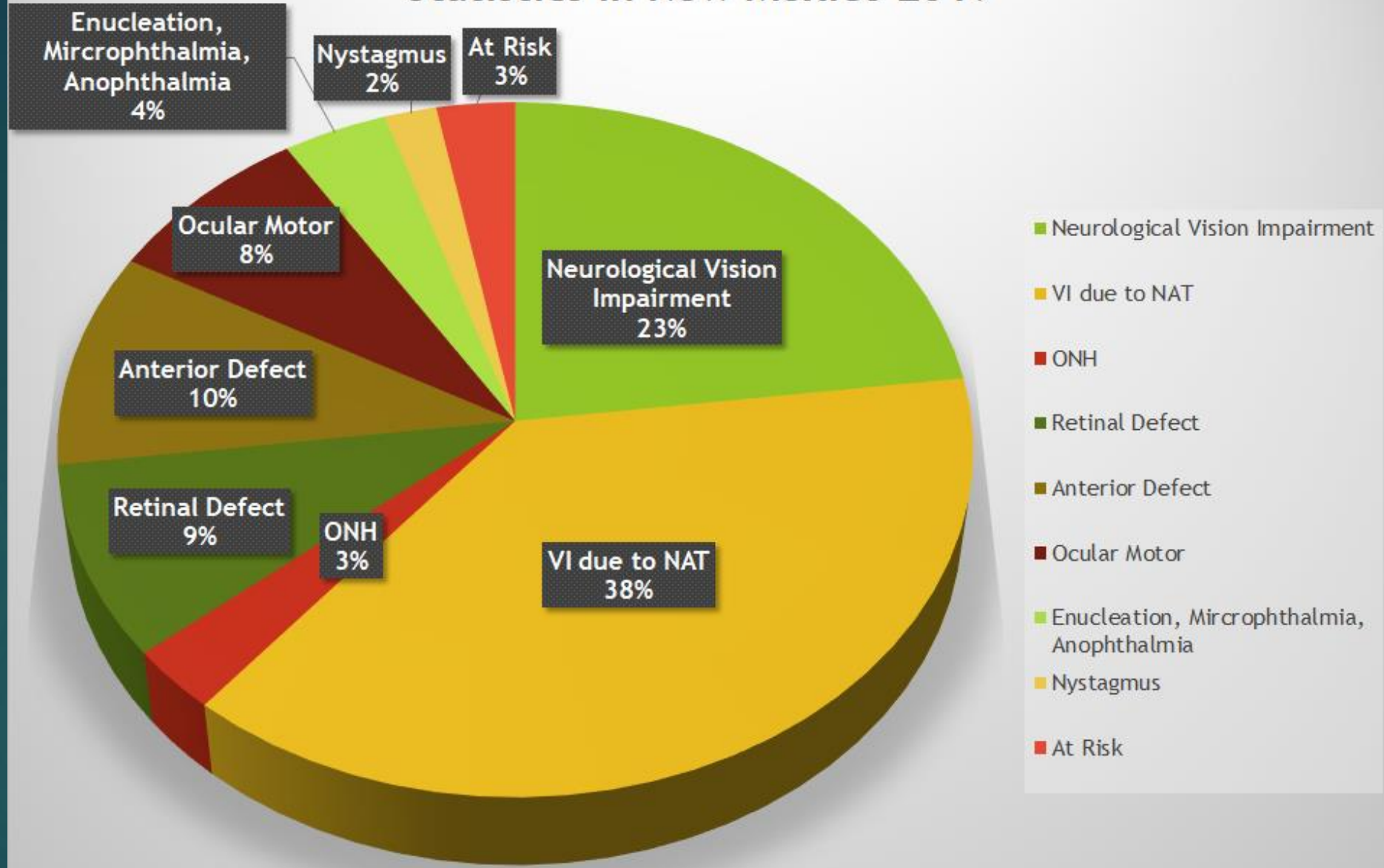
# Visual Behaviors to look for

- ▶ Tilting or holding head in an unusual position
- ▶ Holding objects close or bending to look at something
- ▶ Looking beside, under or above an object or a person
- ▶ Staring at lights or ceiling fans (after 2 months of age)
- ▶ Visually inattentive or uninterested
- ▶ Inconsistent visual behaviors
- ▶ High sensitivity to roomlight or sunlight
- ▶ Difficulty sustaining eye contact

# Cortical/ Cerebral Visual Impairment (Neurological)



# Statistics in New Mexico 2019







## Handle with Care.

Help prevent  
Non-Accidental Trauma.



NEW MEXICO SCHOOL FOR THE  
BLIND & VISUALLY IMPAIRED  
ALAMOGORDO • ALBUQUERQUE  
STATEWIDE OUTREACH  
1-800-437-3505  
WWW.NMSBVI.K12.NM.US

Info. Card Designed & Produced by NMSBVI PrintShop

## Never Shake a Baby.

Non-Accidental Trauma is a serious head trauma inflicted when a frustrated or angry caregiver shakes a child, usually to stop them from crying. Shaking a baby for any reason can cause severe brain and spinal cord damage, blindness and even death. Please spread the word and help prevent this tragedy.

### 20 Tips to Soothe Your Crying Infant Courtesy of the National Center on Shaken Baby Syndrome:

1. Feed your baby. Hunger is often the main reason a baby cries.
2. Burp your baby. Gas can be very uncomfortable.
3. Swaddle your baby in a lightweight blanket.
4. Give your baby a lukewarm bath, under supervision.
5. Massage your baby gently on back, arms, or legs.
6. Give your baby a pacifier. (Use sparingly!)
7. Make eye contact with your baby and smile.
8. Kiss your baby.
9. Lightly kiss the bottom of your baby's feet.
10. Sing softly. Lullabies were created because of their effectiveness at calming crying babies.
11. Reassure your baby with soft words like "it's ok."  
(This can help comfort both you and your baby during a difficult crying episode.)
12. Hum in a low tone against your baby's head.
13. Run a vacuum cleaner to create distracting "white noise."
14. Run the dishwasher; more comforting "white noise."
15. Take your baby for a ride in the car, with baby secure in a rear-facing car seat in the back seat.
16. Rocking with your baby in a rocking chair can be very relaxing for you both.
17. Push your baby in a stroller.
18. Place your baby in a baby swing for a slow, rhythmic motion.
19. Place your baby underneath a lighted mobile.
20. Dance Slowly... and relax!

The list above is not an all inclusive list, as there are many other things you can try to calm your baby's crying. Remember... while many of these techniques will work most of the time, nothing works all the time and that's okay; this does NOT mean there's anything wrong with you or your baby! If you start to become frustrated, it's time to put your baby down in a safe place, walk away for a few minutes, and calm yourself down a bit.


You can also call the Child Help Hotline:  
**1-800-4-A-CHILD** (a free call)

For more information, please contact:

- **NMSBVI Early Childhood Programs**, 1-855-764-6380.  
email: LuanneStordahl@nmsbv.k12.nm.us  
or email: AndreaMontano@nmsbv.k12.nm.us  
www.nmsbv.k12.nm.us
- **University of New Mexico Hospital**  
[505] 273-1959 • Kathy Lopez-Bushnell  
<http://hospitals.unm.edu/health/bsb/index.html>
- **National Center on Shaken Baby Syndrome**  
www.dontshake.org    www.purplecrying.info

# 20 Tips to Soothe Your Crying Infant Courtesy of the National Center on Shaken Baby Syndrome:

1. Feed your baby. Hunger is often the main reason a baby cries.
2. Burp your baby. Gas can be very uncomfortable.
3. Swaddle your baby in a lightweight blanket.
4. Give your baby a lukewarm bath, under supervision.
5. Massage your baby gently on back, arms, or legs.
6. Give your baby a pacifier. (Use sparingly!)
7. Make eye contact with your baby and smile.
8. Kiss your baby.
9. Lightly kiss the bottom of your baby's feet.
10. Sing Softly. Lullabies were created because of their effectiveness at calming crying babies.

- 
- ▶ 11. Reassure your baby with soft words like “it’s ok.” (This can help comfort both you and your baby during a difficult crying episode.)
  - ▶ 12. Hum in a low tone against your baby’s head.
  - ▶ 13. Run a vacuum cleaner to create distracting “white noise.”
  - ▶ 14. Run the dishwasher; more comforting “white noise.”
  - ▶ 15. Take your baby for a ride in the car secured in car seat.
  - ▶ 16. Rocking with your baby in a rocking chair can be very relaxing for you both.
  - ▶ 17. Push your baby in a stroller.
  - ▶ 18. Place your baby in a baby swing for a slow, rhythmic motion.
  - ▶ 19. Place your baby underneath a lighted mobile.
  - ▶ 20. Dance Slowly... and relax!

# Who should be referred to NMSBVI?

Any child between the ages of birth and three years old who has been diagnosed with a vision impairment

Any child who has an established condition that places them at risk for vision impairment; Established conditions can include but are not limited to: prematurity, syndromes, a family history of visual impairment, or traumatic events such as oxygen deprivation, meningitis, or shaken baby syndrome

Any child whose family or team is concerned about some aspect of the child's vision, such as visual behaviors or appearance of the eyes

Any child that is receiving New Mexico Early Intervention services, whose results on the New Mexico Vision Screening Tool indicate need for referral



# How to make a Referral

- ▶ Self Referral (Parent)
- ▶ Early Intervention Agency
- ▶ Ophthalmologist or Optometrist
  
- ▶ For Referrals (English speaking): Call Amber Ohlinger at (575) 449-5298 or email [AmberOhlinger@nmsbvi.k12.nm.us](mailto:AmberOhlinger@nmsbvi.k12.nm.us)
- ▶ For Referrals (English and Spanish speaking): Call Sarah Langley at (505) 220-2785 or email [sarahlangley@nmsbvi.k12.nm.us](mailto:sarahlangley@nmsbvi.k12.nm.us)

# Online Resources

- ▶ <https://cviscotland.org/>
- ▶ <https://littlebearses.org/>
- ▶ <https://www.vincyp.scot.nhs.uk/conditions/>
- ▶ <https://www.helenkeller.org/>
- ▶ <https://www.perkins.org/>
- ▶ <https://www.afb.org>
- ▶ <https://www.nmsbvi.org>

