

Visual Behaviors and Red Flags:

*An Overview of Cortical Visual Impairment and Considerations
for Making an Accurate Diagnosis*

PRESENTED BY

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June 6, 2017 • TALKS ON TUESDAYS WEBINAR



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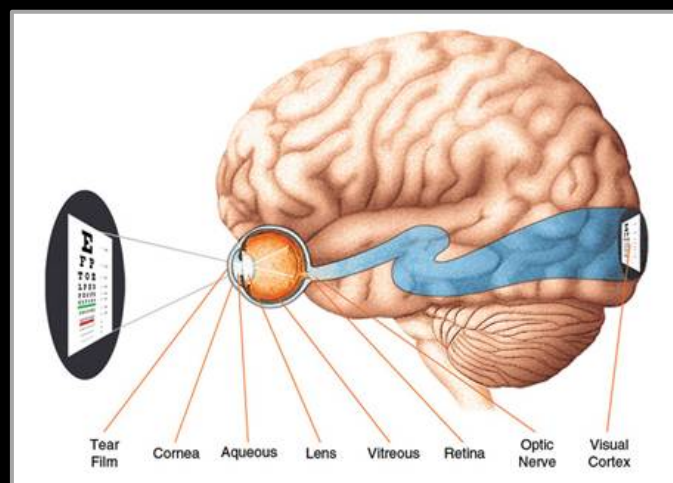
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What experience have you had with children who have visual impairment?

- a. No experience
- b. I worked with a child in the past
- c. I am currently working with a child
- d. I have worked with many children

The Visual System





Field Loss



Cerebral/Cortical Visual Impairments

- “Visual impairment due to damage or disorder of the visual pathways and visual centers in the brain, including pathways serving visual perception, cognition, and visual guidance of movement (Dutton & Lueck, 2015, p. 4).”
- Strategies vary by student, task, environment, and the characteristic related to CVI
- For educational definition see: <http://www.aph.org/cvi>

Most Prevalent Visual Conditions: Birth to 3

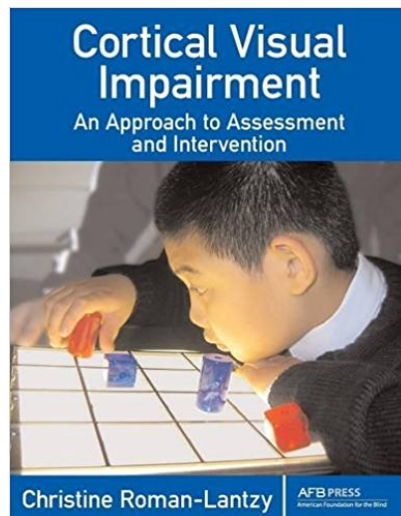
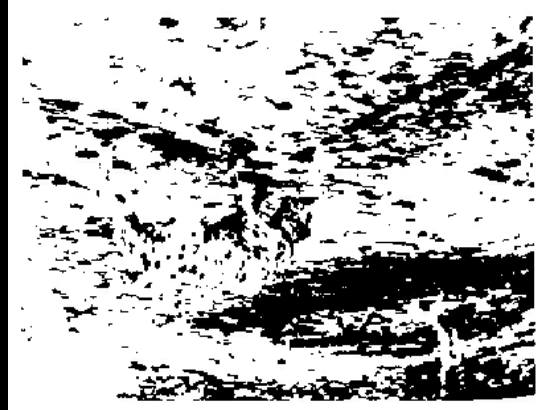
**Cortical Visual
Impairment**
23.6%

**Retinopathy of
Prematurity**
16.2%

**Optic Nerve
Hypoplasia**
9.7%

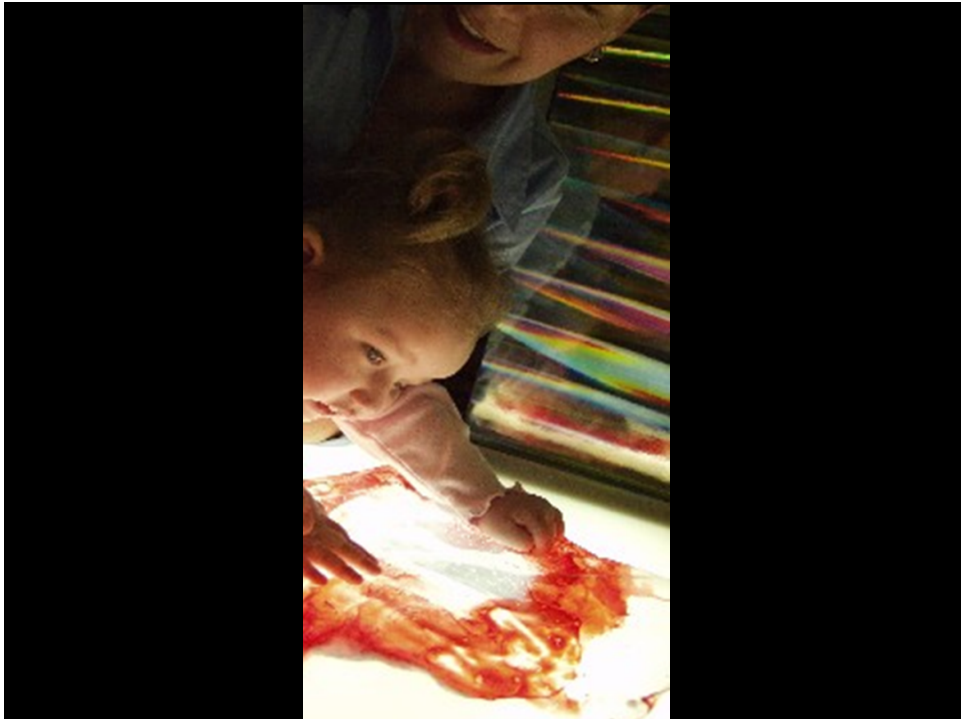
Hatton, Schwietz, Boyer, & Rychwalski. (2007). Babies Count: The national registry for children with visual impairments, birth to 3 years. *Journal of AAPOS*, 11(4), 351-355.

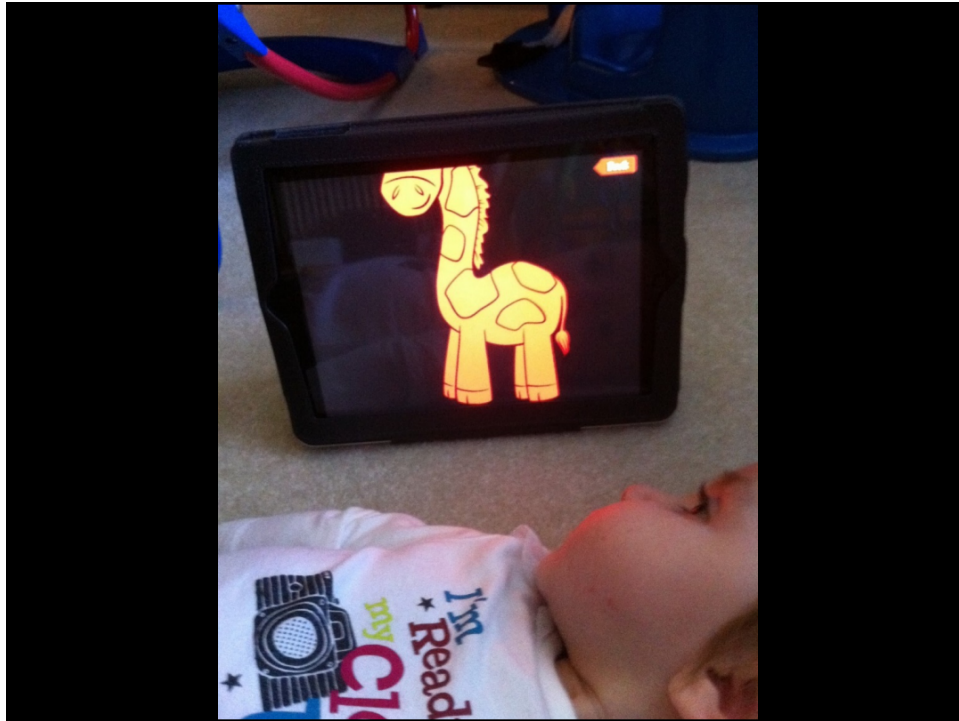
Raise your hand when you find the animal in this image.



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

- Considers: Medical Diagnosis, Parent Interview, Observation, Assessment of 10 Characteristics





Color Preference





Based on what you have learned so far, put a star on the item that would be easier to visually process?



Use the **pointer tool** from the vertical toolbar to make your selection.

Which will be easier to visually process?



Use the **pointer tool** from the vertical toolbar to make your selection.

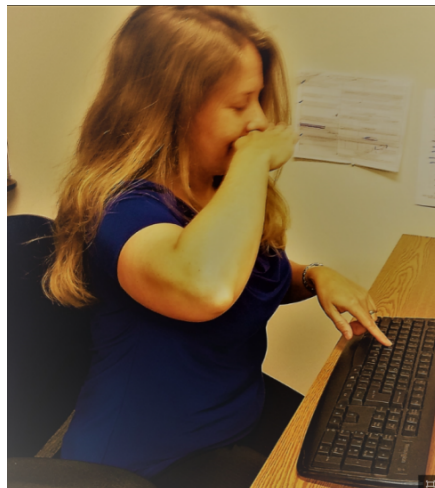
Visual Latency





Try this...

type your name
in the chat pod
while blocking
your lower
visual field

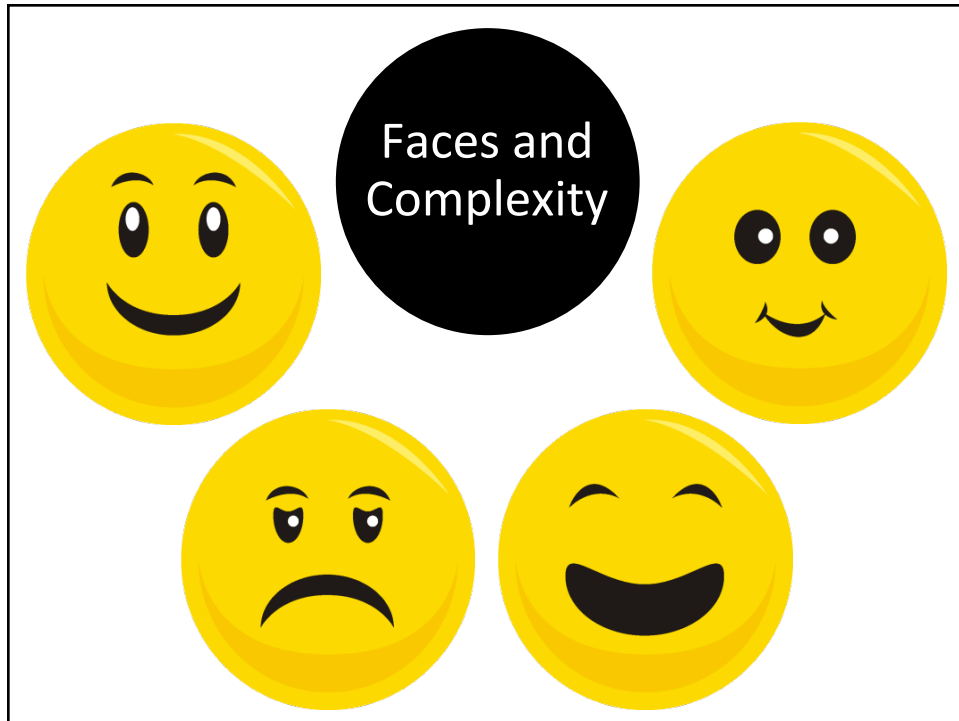


Difficulty with Visually Guided Reach/ Visual Motor



Find the pterodactyl...

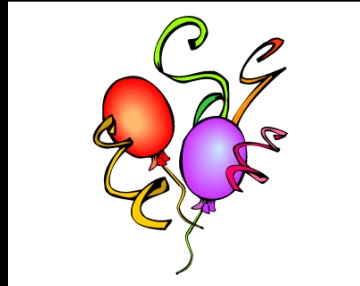
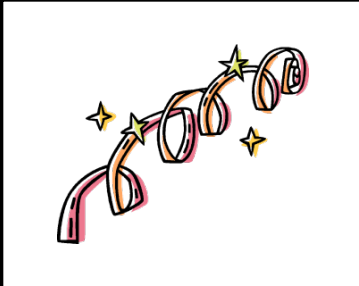




Distance Viewing



Difficulty with Visual Novelty



Visual Cleanser



Diagnosing Cortical Vision Impairment (CVI)



Challenges with Identification



Does this Child have Autism Spectrum Disorder or Cortical Vision Impairment?

Characteristics Related to Visual Patterns

- a. Joey will compulsively gaze at lights.
- b. Myra easily becomes overstimulated and when she does, she has a short attention span.
- c. Sunder will consistently wiggle his fingers in front of his eyes.
- d. Tamika rarely looks directly at an object but typically uses her peripheral vision.

Does this Child have Autism Spectrum Disorder or Cortical Vision Impairment?

Characteristics Related to Social & Communication

- a. Jake does not interact with his peers at child care.
- b. Katrina has not been able to learn categories. She is still trying to learn different types of animals.
- c. Shira will repeat phrases from movies over and over again.

Does this Child have Autism Spectrum Disorder or Cortical Vision Impairment?

Characteristics Related to Motor Planning & Sensory Stimuli

- a. Jasmine has a difficult time navigating a cluttered room. She will often bump into things or step on objects.
- b. Gwendolyn does not like soft food textures and only eats crunchy foods.
- c. Rafael does not like to be in crowds. He gets very upset.
- d. Wendell is working on skills needed to eat lunch. He prefers to grab his food with his fist and has difficulty using a fork.

Red flags – Center for Disease Control



- Not respond to their name by 12 months of age
- Not point at objects to show interest (point at an airplane flying over) by 14 months
- Not play "pretend" games (pretend to "feed" a doll) by 18 months
- Avoid eye contact and want to be alone
- Have trouble understanding other people's feelings or talking about their own feelings
- Have delayed speech and language skills
- Repeat words or phrases over and over (echolalia)
- Give unrelated answers to questions
- Get upset by minor changes
- Have obsessive interests
- Flap their hands, rock their body, or spin in circles
- Have unusual reactions to the way things sound, smell, taste, look, or feel

<http://www.cdc.gov/ncbddd/autism/signs.html>

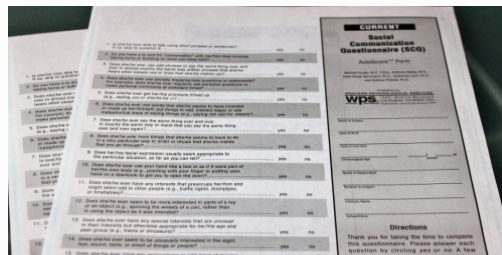
Modified Checklist for Autism in Toddlers Revised with Follow-Up (M-CHAT-R/F)

www.cdc.gov/ncbddd/actearly



www.mchatscreen.com

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Deborah Fein, & Marianne Barton



M-CHAT-R/F Common Characteristics

- If you point at something across the room, does your child look at it?
- Does your child play pretend or make-believe?
- When you smile at your child, does he or she smile back at you?
- Does your child look you in the eye when you are talking to him or her, playing with him or her, or dressing him or her?
- If something new happens, does your child look at your face to see how you feel about it?

M-CHAT-R/F

Characteristics that May not be Observed in CVI

- Have you ever wondered if your child might be deaf?
- Does your child make unusual finger movements near his or her eyes?

M-CHAT-R/F

Characteristics that May Need Further Interpretation

- Does your child understand when you tell him or her to do something?
- Is your child interested in other children?
- Does your child point with one finger to ask for something or to get help?
- Does your child respond when you call his or her name?
- Does your child get upset by everyday noises?
- Does your child try to copy what you do?

M-CHAT-R/F Follow Up Interview

Is _____ interested
in other children?

Does your child...

- Play with another child?
- Talk to another child?
- Babble or make vocal noises?
- Watch another child?
- Smile at another child?
- Act shy at first but then smile?
- Get excited about another child?



Resources for CVI

- Little Bear Sees <http://littlebearssees.org/what-is-cvi/>
- Perkins Webcasts
<http://www.perkinselearning.org/videos/webcast/cortical-visual-impairment-and-evaluation-functional-vision#transcript>
- National Center on Deaf-Blindness: Special Topics
<https://nationaldb.org/library/list/91>
- West Virginia Department of Education - On-Line CVI Training
<http://wvde.state.wv.us/osp/vi/cvi/>
- American Printing House CVI Information
<http://www.aph.org/cvi/index.html>