

Cortical/Cerebral Visual Impairment (CVI)

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ETIOLOGY

- Leading cause of visual impairment in children
- Prominent cause of congenital visual impairment in children
- What is Cortical/Cerebral Visual Impairment (CVI)?
 - CVI is a neurological form of visual impairment caused by “damage or atypical structures in the visual pathways and/or visual processing centers of the brain” (Roman Lantzy, 2018). CVI is the leading cause of visual impairment in children in countries or regions with access to quality neonatal health care. CVI can improve overtime with appropriate diagnosis and intervention.

GENERAL CHARACTERISTICS

- There's no such thing as a one-size-fits-all model for teaching students with CVI. A teacher must build rapport and develop a relationship with the student to understand the whole child.
- A student may have both and ocular impairment and a brain-based impairment
- If the eye exam can't explain visual deficits.

10 Characteristics of CVI (Roman Lantzy, 2018)

1. Movement
2. Complexity
3. Visual Latency
4. Visual Field Preference
5. Visual Reflex
6. Light
7. Distance Viewing
8. Atypical Reflexes
9. Visual Novelty
10. Guided Reach

SPECIFIC MODIFICATIONS THAT SHOULD BE INCLUDED IN A UNIVERSALLY DESIGNED LESSON

- The overall goal of what you are asking the student to do, must be clear
 - Is the goal for the student to move?
 - Is the goal for the student to look?
- Allow time for movement and visual breaks
- Follow the students CVI schedule
- The teacher must understand how the brain works to be able to apply modifications and appropriate strategies for learning and assessment
- Team collaboration is key
 - Speech and Language Pathologist
 - Teacher of the Visually Impaired
 - Behaviorist

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GENERAL MODIFICATIONS

- Saturated neoprene colored luggage handles on areas that are commonly used
- Sparkly red duct tape or preferred color on equipment or furniture that might need to be highlighted
- Backlighting and lighting sources for introducing equipment
- CVI learning table to present equipment or pre teach
- Wear dark color clothing, consistent with hair, glasses and any other personal attributes
- Environmental Modifications
 - Where are you teaching?



CONTRAINDICATIONS

- Know the individual student and the stage of CVI
- Individualize based on his/her needs

SPECIFIC RESOURCES

perkins.org/cvi-now

pathstoliteracy.org/technology/word-bubbling-tool-teaching-students-cvi

roman-word-bubbling.appspot.com

perkins.org/resources-stories/cvi

perkinselearning.org/topics/cvi

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- Hall Lueck, A. & Dutton, G. N., (2015). Vision and the Brain: Understanding Cerebral Vision Impairment in Children. New York: AFB Press
- Teach CVI (2017). Tools for educators and health care providers. Retrieved from: <https://www.teachcvi.net>
- Tietjen, M. (2019). The "What's the Complexity?" Framework. In Roman-Lantzy, C. (2019). Cortical Visual Impairment: Advanced Principles (pp. 92-150). Louisville, KY: APH Press

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