

CVI

Cortical/Cerebral Visual Impairment

A Teacher's Perspective

By Lisha Yochimowitz, M.Ed.

TVI and Paths to Literacy content manager

lishatvicvi@gmail.com and Instagram @brailleandtviteacher

Information collected through experience, peers, parents, student data collection, and the teaching and medical field. We learn from each other.

What is CVI?

CVI is a brain based visual impairment. For this explanation we use the term Cerebral Visual Impairment and Cortical Visual Impairment together for inclusiveness of learning strategies.

From AAPOS <https://aapos.org/glossary/cortical-visual-impairment>

What is CVI?

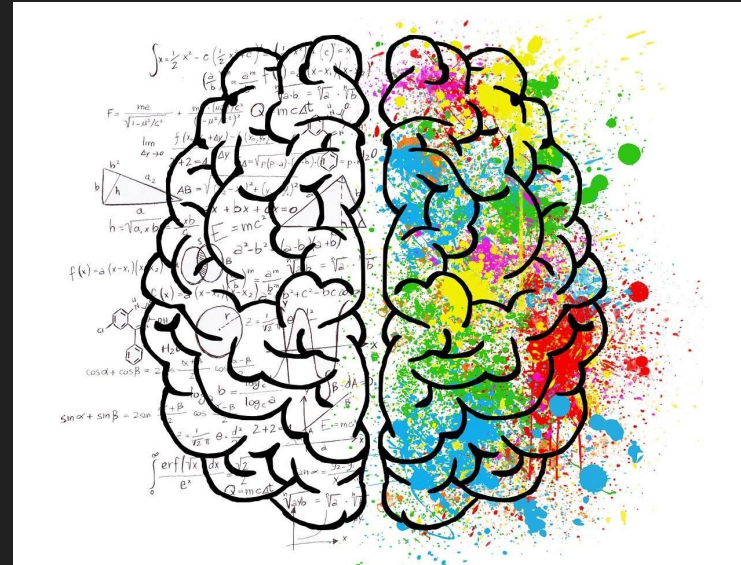
CVI is a decreased visual response due to a neurological problem in the brain. A child with CVI can have a normal eye exam or concerns that go beyond what a typical eye exam cannot catch. Children with CVI display characteristic behaviors. It is the most frequent cause of visual impairment in children from developed countries.

In My Own Words:

It's when the brain has trouble interpreting what it is seeing.

“The eyes are tools for what the brain sees.”

Note: Photo of brain with a left and right side, art and math



What Causes CVI?

CVI is caused by any process that damages the visual parts of the brain.

Examples include:

- Brain damage
- Stroke
- Decreased blood supply and/or decreased oxygenation
- Brain malformation or infection
- Hydrocephalus (increased pressure in the brain)
- Seizure
- Metabolic disease
- Infection
- Head trauma
- Neurologic disorders

Does “Vision” Improve at all with CVI?

As the brain matures, new connections can develop in the brain to overcome the initial injury or deficit and improve the function, however it is difficult initially to predict future visual function. Interventions based on the characteristics seen in children with CVI can help maximize performance.

Vision processing improvement is seen in many children with CVI. This is especially true if they receive the correct interventions based on their CVI phase.

Information from AAPOS

In my experience with CVI students over 20 years: **YES!**

Interventions, adaptations, and the correct learning environments allow kids with CVI improve their functioning but they will always have CVI.

CVI Typically Demonstrates:

- Color Preference
- Need for Movement
- Visual Latency
- Visual Field Preference
- Difficulty with Visual Complexity
- Light Gazing and Non-Purposeful Gaze
- Difficulty with Distance Viewing
- Atypical Visual Reflexes
- Difficulty with Visual Novelty
- Absence of Visually Guided Reach

Cited: Dr. Roman-Lantzy

CVI Assessments: It's all in the data collection

Dr. Christine Roman-Lantzy breaks up CVI into 3 distinct phases to make better adaptations and learning strategies: [Dr. Christine Roman-Lantzy's CVI Range](#)

Dr. Gordon Dutton's Visual Skills Inventory: [Dr. Gordon Dutton's Visual Skills Inventory](#)

[Teach CVI Screening Tools](#)

[The Perkins CVI Protocol](#): Still in development, digital roadmap

For more information visit: [CVI Now](#)

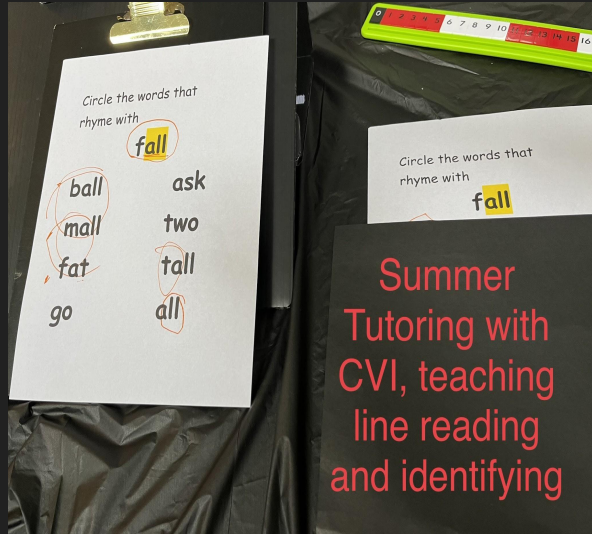
How Do I Teach a Child with CVI?

1. Understand what CVI means
2. Read the student's medical history
3. Consult with a TVI (Teacher of the Visually Impaired)
4. Have the student evaluated with a CVI assessment, not just a FVE (functional vision evaluation)
5. Use the information gathered to discuss strengths and needs
6. Use a Universal Design Approach since it is good for most learners
7. Make adaptations to materials with the help of the child's TVI
8. Keep assessing and re-evaluating what is working and needs improvement

My “Go To” Materials and Tips for CVI Kids

- Use a solid colored and high contrast background
- Bold colors (yellow and red are often colors I start with)
- Make a calm and uncluttered work environment that nurtures learning
- Use predictable outcomes in class with lots of routine
- Give extra time, repetition, and show patience
- Give few choices and slow to introduce novelty
- Simple directions
- Allow for breaks, especially visual breaks
- It’s okay if they are not looking at you, as long as they are listening
- Use dark font that is larger and less cluttered with extra spacing
- Underline words

Making Adaptations is KEY for our Students with CVI



Note: 3 pictures of CVI adapted worksheets, a black table cloth and slant board

Quick Tools for CVI Adaptations

Article about toolbox:

CVI Adaptations Tool Box

Visit: www.pathstoliteracy.org

Note: Photo of TVI quick CVI adaptations that include sticky notes, tactile stickers, black markers, note cards, plus highlighters



Lisha created the CVI toolbox



Visit: [Paths to Literacy for Classroom Ideas and Adaptations](#)

Photos: One of a pop-up tent with lit materials and 2 students in it and one of a bulletin board with a solid black background and solid colored boarder

Why Can Some CVI Kids See Small Details but Act Blind?

CVI is a complex, brain based visual impairment. Many factors go into why a person with CVI can easily see a small bead on the table and then fall over a large toy in front of them.

Just a Few Factors:

- Lighting
- Familiar vs. unfamiliar space
- Noise
- Routine with familiarity vs. novelty
- Fatigue, motivation, and general health
- Complexity and contrast
- Visual fields and distances

Websites to Visit:

[Perkins CVI Now](#)

[Paths to Literacy](#)

[CVI Scotland](#)

****Sign up for their newsletters for up to date research and information!**

[CVI videos on Youtube](#)

[Dr. Roman's word bubbling](#)

So Now What?

A good teacher is a teacher who doesn't have all the answers but is willing to learn while bringing their skills and talents to the table.

- Do your research and welcome outside assessments
- Ask for help and reach out to the experts
- Use parents as partners
- Have fun while going on this adventure together

*Information updated July 2024