

CVI

Cortical Visual Impairment

By
Eleni Vernadaki,

Katerina Lymperopoulou
Andreas Konstantakis

Early Intervention Educators, for Children with Visual Impairments
Amimoni

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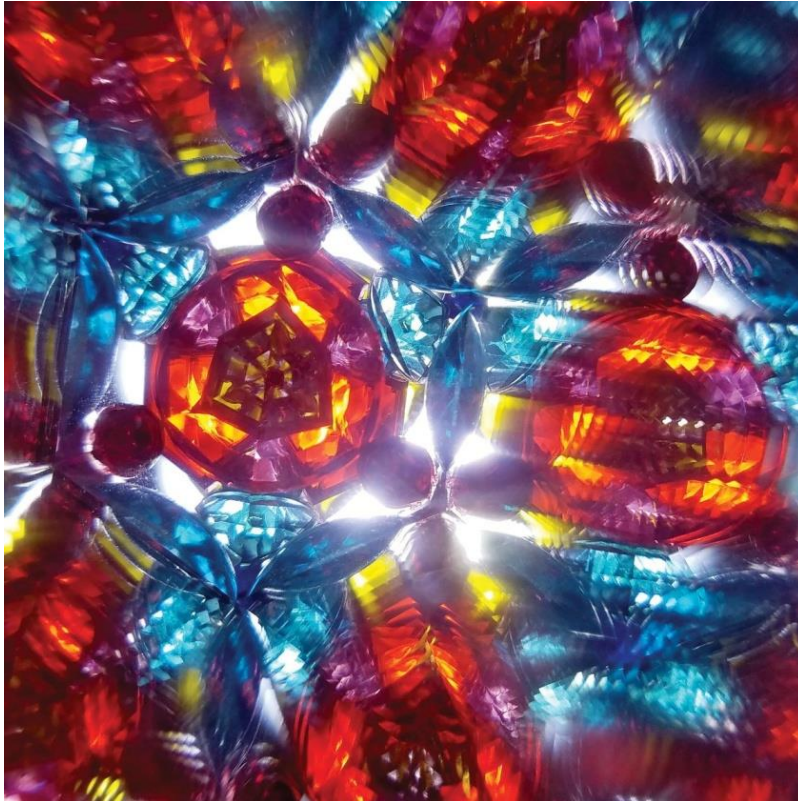


ΣΧΟΛΗ ΤΥΦΛΩΝ
«ΑΓΙΟΣ ΒΑΡΝΑΒΑΣ»
ΒΡΑΒΕΙΟ ΑΚΑΔΗΜΙΑΣ ΑΘΗΝΩΝ

What is CVI?

- CVI (Cortical Visual Impairment) is a form of visual impairment which is caused by atypical structures or damage in the visual pathways and/or visual processing centers of the brain.
- CVI is believed to be the leading cause of visual impairment in children in the USA and “first-world” nations.

CVI vs. Ocular Visual Impairment



This is an example of how an individual with CVI sees the world, as seen through a kaleidoscope.

CVI is critically different from other ocular forms of visual impairment.

An individual with CVI **can perceive** visual information **but cannot process and interpret** it accurately.

Diagnosis of CVI

- Eye exam that does not explain the child's profound lack of visual attention.
- History of neurological condition associated with CVI.
- The presence of unique CVI visual and behavioral characteristics.

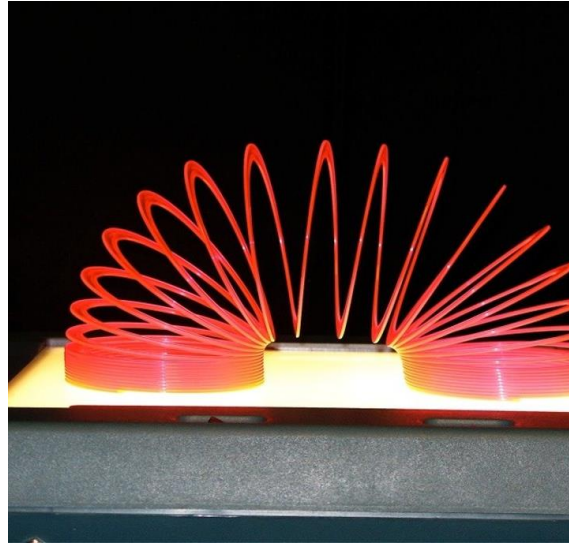
Medical Conditions associated with CVI

- Asphyxia
- Intraventricular hemorrhage
- Periventricular Leukomalacia (PVL)
- Metabolic syndromes
- Stroke
- Trauma
- Congenital brain malformations
- Infection, congenital and acquired
- Chromosomal disorders

Characteristics of CVI

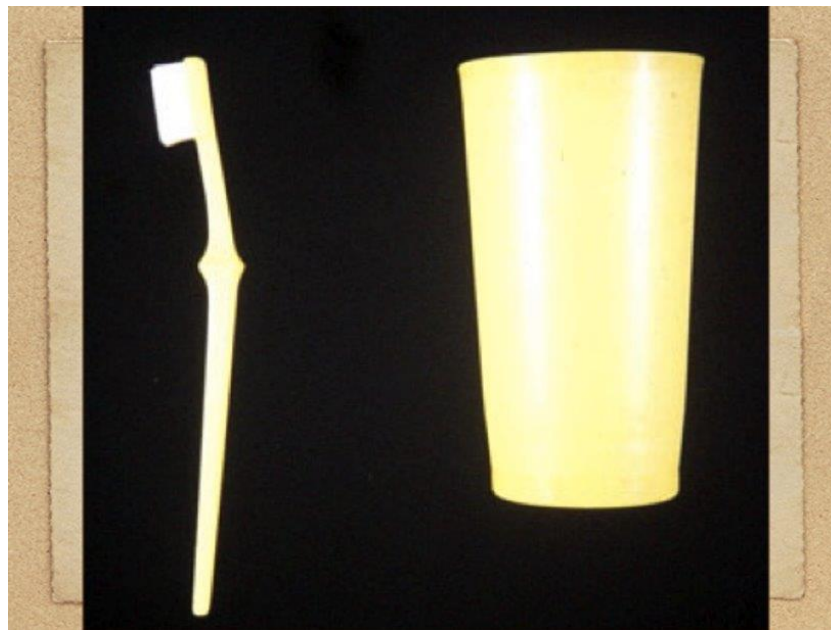
- Attraction to color
- Attraction to light
- Need for movement
- Visual complexity
- Visual latency
- Visual field preferences
- Difficulties with distance viewing
- Visual reflex differences
- Difficulties with visual novelty
- Lack of visual motor match

Educational Material



Roman-Lantzy, 2018

Adaptations



Functional Vision Assessment

"The CVI Range"

- Differentiates CVI from ocular forms of visual impairment (WPSBC, 2013, unpublished)
- Used with all ability levels & with infants-21
- Scores the degree of CVI on a 0-10 scale
- Describes three broad phases:
 - I=building visual behavior (score 0-3)
 - II=vision+function (score above 3-7)
 - III=resolving (score above 7-10)

"The CVI Range"

The CVI Range (Roman Lantzy, 2007) is used to investigate the extent of the affect of the **10 characteristic** behaviors associated with CVI.

CVI Range: 2 Methods of scoring

- The 1st Method is related to **visual behaviours** associated with the 10 core characteristics of CVI.
- The 2nd Method is related directly to **CVI characteristics**.

Scoring I & Scoring II are not averaged.

Both scorings become THE RANGE.

Data is collected through

1. Observation in home and learning settings.
2. Interview with the family
3. Direct assessment

Use of CVI Range Scores

- Will be used to determine the **level of visual function**.
- Will be used to **plan** discreet **interventions** and **teaching methods** at the proper level.
- Will be used to describe the student's current use of vision or, **how the individual sees the world**.
- Will be used to **monitor progress** over time.

CVI cases in Early Intervention Programme of Amimoni

- 50% of children participating in Early Intervention Programme of Amimoni have CVI.
- 50% of them are currently in Phase I in CVI Range and 50% are in Phase II.
- Most of the children in Phase II have begun their visual journey from Phase I.
- Most of those children that are in Phase I are in a progressive status of moving up to the CVI Range.

From our
experience

- Each child with CVI has its own unique characteristics, needs and personality. In our interventions, we need to take into account those differences and create an individualised CVI programme.

Thank you!

<https://amimoni.gr/en/programmes/early-intervention/>