

# THE IMPORTANCE OF TIMELY DIAGNOSIS OF CEREBRAL VISUAL IMPAIRMENT IN CHILDREN FOR CRITICAL & EARLY INTERVENTION

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Early vision intervention is critical for children with Cerebral Visual Impairments (CVI), as documented in the research and explained in the following references. A child may be suspected of having a cerebral visual loss when the extent of visual loss is unexplained by ocular abnormalities. Services from a teacher of the Visually Impaired generally require a doctor's report stating that cerebral visual impairment is suspected based on the child's history, functional performance, and behavior characteristics. Some children with CVI may also have ocular abnormalities.

## WHY DIAGNOSE CVI QUICKLY?

The following quotes, from the articles referenced below, explain why.

"...cerebral insult can produce coexisting damage to the eyes and visual cortex, but cortical visual loss is rarely diagnosed (if ever) in these children, yet the correct diagnosis would make a major difference in their visual rehabilitation." <sup>1</sup>

"Because CVI is a hidden handicap, the children are frequently described as visually inattentive or poorly motivated. A great number of neurological disorders can cause CVI, but after the initial insult to the brain, vision tends to improve in the majority of children. Those whose vision does not improve 1½ to 2 years after the onset of their cortical visual loss are less likely to improve." <sup>2</sup>

"Children with CVI and ocular visual loss radically differ in their ability to process visual messages. With ocular disorders, the signals may be incomplete, but the process of analysis is sound. Thus, visual enrichment and training in scanning more efficiently when the information is complex are successful techniques. For children with CVI, this approach does not work; in fact, visual input must be controlled to avoid "visual overloading"...if the amount of visual information is increased, it becomes much more difficult for the children to process visual input. Visual images should be simple in form and presented in isolation." <sup>2</sup>

## ETIOLOGY OF PERMENENT CEREBRAL VISUAL IMPAIRMENT

**Prenatal** (before birth)

Toxemia, Intra-Uterine Infection, Cerebral Dysgenesis

**Perinatal** (birth to 28 days of life)

Asphyxia, Intra-Cerebral Hemorrhage, Meningitis/Encephalitis

**Acquired** Shunt malfunction, Trauma, Meningitis, Cortical Vein Thrombosis, Cardiac Arrest

<sup>1</sup> Jan, J., Whiting, S., Wong, P., Flodmark, O., Farrell, K., McCormick, A., (1985) "Permanent Cortical Visual Impairment In Children"/ *Developmental Medicine & Child Neurology*, 27, 730-739.

<sup>2</sup> Jan, J., Groenveld, M., (1980) "Observations on the Habilitation of Children with Cortical Visual Impairment", *Journal of Visual Impairment & Blindness*, January 1990.