Who Receives Intervention for CVI?

While identification begins as a medical issue, cortical/cerebral visual impairment (CVI) is also of concern in education. Many undiagnosed children are not receiving interventions tailored to their needs, and these children can struggle in schools without appropriate remediation. To this end, we must consider the following:

Identify children who exhibit typical ocular characteristics or mild trouble with visual acuity or visual fields but who manifest dysfunction(s) in higher order visual systems

Some children may show normal or mild signs of visual impairment based upon visual acuity or visual field limitations, but may manifest visual perceptual or other problems that need to be identified and addressed in educational programs (Downie, Jacobson, Frisk, and Ushensky, 2003; Fazzi et al, 2004; Stiers, De Cock, Vandenbussche, 1998; Dutton et al., 1996; Jacobson et al. 1996). Jacobson and Dutton (2000), for example, indicate that diagnosis can be a challenge for students with milder forms of PVL (periventricular leucomalacia), especially when children have no cerebral palsy and show typical verbal development. In educational settings, these higher functioning children may be the least understood and the most underserved.

Examine children with CVI for ocular conditions in order to develop comprehensive intervention strategies

Conversely, it is also important to identify ocular conditions in children with cortical visual impairment in order to develop optimal intervention approaches (Hard, Aring, & Hellstrom, 2004; Dutton, 2003; Stiers, De Cock, & Vandenbussche, 1999; Stiers et al, 2001). In children with severe motor delays or cognitive impairments, ocular conditions may be overlooked due to difficulty in testing or unawareness of the need for this type of examination.

Consider the presence of brain injury in children with anterior visual pathway disorders leading to visual impairment

One study (Dale & Sonksen, 2002) found that 51 percent of 79 children with congenital anterior visual pathway disorders who were not expected to have central nervous system involvement had brain lesions, as determined by neuro-imaging techniques. Another (Gronqvist et al, 2001) found that 75 percent of 45 children born at full term with visual impairment had cerebral morphological (42 percent) and/or cerebral functional abnormalities (65 percent). Further studies are needed to determine if these neurological anomalies are benign in their effect or contribute to behavioral differences that affect function and may benefit from educational remediation techniques.

Develop collaborative diagnostic guidelines for assessment of CVI

Assessment of children with CVI to determine educational interventions needs to be collaborative in nature due to the variety of types of brain injuries and their complex functional consequences. Collaboration and communication among a variety of specialists are vital for effective assessment of children with complex conditions such as CVI. The provision of guidelines for collaboration among families and these specialists would be extremely useful.

Develop systems and accepted methodologies to identify children early

Early recognition of CVI is thought to promote the habilitation process (Dutton & Jacobson, 2001; Good et al., 2001). Systems and methodologies must be developed to screen and identify for CVI. Assessment material related to CVI need to have rigorous standardization protocols valid for children with visual impairments. Teachers and families of children who present behavioral signs of CVI, including higher functioning children, need approaches for working with the medical community to diagnose the condition and to develop appropriate educational interventions.
CVI, including higher functioning children, need approaches for working with the medical community to diagnose the condition and to further understand the neurological and behavioral correlates.


### References


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**Next:** Statement on Cortical Visual Impairment

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The CVI Range© was developed by Dr. Christine Roman. It is a unique assessment tool to evaluate a child’s current use of vision and track progress. There is a critical need for CVI-specific training. Most teachers of the visually impaired (TVIs), other educators and related services providers have not received training in intervention methods for CVI. While it continues to be important that every child with a visual impairment have a teacher of the visually impaired assigned to them, it is equally important that a member of the educational team has proven expertise in CVI. In partnership with Dr. Roman, Perkins eLearning offers both in-person trainings and online classes on the basics of CVI, as well as the CVI Range© assessment tools and Because of this discrepancy, CVI has been difficult to diagnose and treat. As I have learned more about CVI, I have begun to grasp how important it is for parents of children with CP or TBI (traumatic brain injury) to be aware of it’s signs and symptoms and how this recognition can make a dramatic difference in a child’s learning and future. At the 2013 AACPDM annual professional’s meeting, Jen, a fellow parent and friend, who also has a child with CP and CVI, encouraged me to attend a presentation by Dr. Christine Roman, a leading expert on CVI. Hidden in this small conference room in a hotel