# THE VISUAL FUNCTION CLASSIFICATION SYSTEM (VFCS)

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#### What is the VFCS?

**The Visual Function Classification System (VFCS)** is a valid and reliable 5-level classification system that describes how toddlers and youth with cerebral palsy (CP) use visual abilities in daily life.

The VFCS takes into account the levels of activity and participation as described in the International Classification of Functioning, Disability and Health (ICF) developed by the World Health Organization (WHO).

The validation of the VFCS has been done with children between 1 and 19 years old

The importance of a visual functioning classification system for children with CP lies in the fact that children with CP often have vision disfunction. It that can be either due to the brain injury or injury of the eye structures (for example: retinopathy of prematurity, cataracts)

The goal of the group that developed the VFCS was to include vision with the existing classifications of abilities for individuals with CP (Gross Motor GMFCS, Manual ability MACS, Communication CFCS, and Eating and drinking EDACS). Consistent with all CP classifications, the VFCS:

- is not intended to be used as an assessment tool,
- does not explain the underlying reasons of the visual function abilities
- highlights function abilities rather than limitations,
- describes usual daily performance of a child with CP, rather than his or her best capacity
- the lowest level corresponds to better functioning

This is why it is important to think about <u>daily situations in typical environment</u> when classifying the level of vision function ability of the child with CP.

The classification could be completed by anyone familiar with visual function abilities of the individual, including a parent or caregiver, therapist or physician, or the individual themselves.

The definition of visual functioning used in the description of the VFCS scale levels intends to include all vision-related abilities of the individual, whether due to peripheral and/or cerebral vision impairment. It does not test, but reports, an individual's level of vision utilization ability in daily life.

### Of note:

Corrective eyeglasses are to be considered a part of the standard ability of the individual when the VFCS is completed. This means, in the question about an "adaptive device" eyeglass are not considered an adaptive device for the purpose of the VFCS.

### **Questions and Answers:**

In children with CP, is vision impairment related to a problem of the eye/s or of the brain? Children with CP may have problems with vision due to the brain injury that also affects their motor function. This means that it makes it more difficult for the brain to process the information to understand what the eye/s see/s and is called Cerebral Visual Impairment (CVI). Also, people with CP have a higher incidence of eye-related problems and may require eye-glasses.

Therefore, in children with CP vision impairment may be related to a problem of the eye/s, of the brain, or both.

## Is the VFCS a Classification system or an Assessment

The VFCS is not an assessment. It is a valid and reliable 5-level classification system of the use of visual function for children with Cerebral Palsy. It describes the use of visual abilities in daily life, focusing on activity and participation. Its utility lies in the harmonization of communication among professionals, and for planning interventions and supports or adaptations to promote activity and participation of the child.

### If this is not an assessment, then how is vision tested (assessed)?

The "Eye doctor" – ophthalmologist usually checks the health of the eyes and peripheral vision difficulties. But there are also tests to understand the quality of the functioning of the visual system- including seeing and perceiving the visual information. These tests may be done by rehabilitation doctors, therapists, or specialized ophthalmologists (depending on the country and training of the health professionals).

### Useful definitions to complete the VFCS

"Independence" is the consistent and successful use of vision in vision-related daily activities without adaptations, other sensory modalities, or external support. External support is the need for assistance and/or adaptations of the environment (such as lighting, distance, contrast of item, speed of item movement) to perform vision-related daily activities.

#### "Vision function" and "functional vision"

According to one definition of the terms by Dr. Bennett and colleagues: Vision function describes how well the <u>eyes</u> and basic visual system can <u>detect an object</u> stimulus. In contrast, functional vision describes to how well an <u>individual performs</u> in the environment, how their vision is used in everyday activities.

This means the way the child actively uses his/her sight to see, direct the gaze, recognize, interact with the environment and explore it, both in static and moving conditions in relation to what one would expect based on the age of the child.

Understanding the full capacity of functional vision involves several assessments completed in different environmental conditions (lighting, distance, contrast, speed of movement) done in complex, real-life conditions.

The VFCS deals with functional vision and refers to the "<u>use</u> of visual function" in daily activities.

Bennett, Christopher R., et al. "The Assessment of Visual Function and Functional Vision." *Seminars in pediatric neurology*. Vol. 31. WB Saunders, 2019