

Cerebral Vision Impairment

Cerebral Vision Impairment (CVI) is a temporary or permanent condition where some of the special “vision” parts of the brain and its connections are damaged. CVI affects each child/young person uniquely and to different degrees (mild to severe). It causes difficulties in processing visual information and making sense of what is seen. A child/young person can have CVI in isolation (*without* reduced visual acuity) or the CVI may be accompanied by an ocular condition (*with* reduced visual acuity).

There are many features of CVI. Common difficulties that occur in school are:

- Lack of **visual attention**
- Difficulty with **processing visual and/or auditory information**
- **Mobility difficulties**
- **Problems with recognition** of known people and facial expressions

Strategies that may help a child/young person with CVI

Encouraging **visual attention** at close range

- Cover visual material surrounding the area of focus using a typoscope or plain card
- Allow child/young person to point to single words when reading or use a reading ruler or bar magnifier
- Use a sloping board to bring text closer
- Provide child/young person with individual copy of worksheet that can be placed within their field of vision
- Highlight area of focus in a different colour or border

- Use well-spaced text/writing in large clear print
- Reduce visual clutter on worksheets
- Avoid text on coloured or patterned backgrounds to ensure best contrast
- Instruct verbally where to look at the single item of focus in an array e.g. on a worksheet or on a desk
- Pointing/tapping at an item on a worksheet can provide additional cues of where to look
- Use a programme which allows for variable amounts of text to be viewed at a time e.g. LOOK (a free programme) which can be found here:
<https://cviscotland.org/utis/look/>

Encouraging **visual attention** in the classroom/school environment

- Keep visual clutter in the classroom to a minimum. Are the walls busy or clear?
- Clutter can create confusion and distractions The potential link between cluttered classrooms and students' functioning and behaviour indicates that visual clutter may amplify the visual difficulties associated with CVI and distract the students from learning activities. Changes to consider may include:
 - covering wall displays with black paper
 - hanging sheets over open shelving
 - creating areas of blank wall in front of the student to focus attention on work
 - removing unnecessary equipment and furniture
 - and taking down information on windows and walls
 - clear work surface areas and clearly labelled resources/storage areas
 - providing a screened work area for child/young person to work at for specific tasks/times

- using pointer/ spotlight tool on whiteboard/interactive whiteboard (IWB)
- providing preferential seating for optimal positioning, close to where the teaching activity is taking place. Take account of any known visual field loss
- control of natural/ artificial lighting to alleviate the effects of glare
- use of plain coloured surfaces with high contrast objects for best visual access.

Assisting with processing visual and/or auditory information

- Present lessons requiring most visual effort at optimal learning times. For most children/young people this is the morning
- Consider adjusting the pace of the lesson so that visual and auditory reception is more likely to occur
- Provide auditory and visual output in a sequence rather than simultaneously e.g. transcribe on the board *and then* read the information aloud, show a picture, allow time for
- processing and then discuss
- Modulate voice to maintain interest
- Control or make adjustments, where possible, when there are competing auditory/ visual
- stimuli that distract
- Provide breaks during instruction
- Allow for increased response time and consider
- **KISS** (Keep It Slow and Simple).

Assisting Mobility difficulties

- Keep clutter to a minimum, especially on the floor

- Provide good lighting in corridors and stairwells
- Contrasting stair nosing and kerbs can improve perception of differences in levels
- A 'walker' toy that younger children can push along in front of them gives them a tactile cue about changes in surface levels.

Assisting with Recognition Difficulties

- Ascertain at what distance the child/young person begins to have difficulty with recognition of expressions and ensure that you are within that range when communicating. If at a distance, tell the child/young person verbally how you are feeling rather than expecting them to interpret your facial expression
 - For a child/young person who has difficulty recognising the faces of known people encourage the child/young person to listen to voices and focus on key identifying features/objects e.g. hair styles, jewellery worn often, frequently worn clothing e.g. colour of coat
 - For a child/young person who cannot find a parent/ learning support assistant/ friend the person should position themselves in a predetermined place.

Not all strategies need to be maintained for the long term as improvement with vision can occur over time with CVI. Reduce or gradually remove strategies if the child/young person no longer requires them.

Websites for further information about CVI

[CVI Scotland](#)

[Scottish Sensory Centre](#)

[Scottish Sensory Centre An Introduction to CVI](#)

[The CVI Society](#)