

Unilateral Hearing Loss and Additional Attention and Focus Difficulties

Unilateral hearing loss is hearing loss in one ear.

Some children with unilateral hearing loss experience additional difficulties with attention and focus due to changes in neurological pathways that develop with long term sensory deprivation on one side. The effects can be more significant for children that have either a severe or profound unilateral loss and cannot be effectively aided with a hearing aid and/or have a right sided hearing loss.

Implications for learning

Many children with unilateral hearing loss find it hard to hear in the presence of background noise. However, research (Schmithorst et al 2014), suggests that children with severe and /or right sided unilateral loss may develop additional changes to their neurological pathways, beyond the primary auditory pathways, due to a long term one sided sensory deprivation. Research indicates that changes and deficits can be found in the following neurological pathways:

Cross modal processing – deficits in this area of the brain make it harder to integrate visual and auditory information at the same time e.g. difficulties understanding information when a teacher is pointing to a diagram and talking about the diagram at the same time.

Default Mode Networks – deficits in this area of the brain are associated with difficulties with focus and attention and executive function (working memory, organisation and planning, difficulties with maths, self-monitoring and self-reflection).

Ways to help

- Understand that these CYP have neurological changes and may be unable to maintain focus and attention in line with their hearing peers and need to be given the same understanding and support that CYP with other diagnosed neurological differences (such as ADHD) receive.
- Allow longer processing time and allow the student to look and process information first before being required to listen or complete a task.
- Support organisation of tasks by breaking tasks down and providing structured support e.g. writing frames.
- Provide sensory breaks and where appropriate allow small fidget toys that may aid focus and concentration.
- Allow extra time for tests and allow tests to be taken separately in a quiet room with support to aid focus.
- Support social and emotional mental health needs.
- Follow the additional advice on the Factsheet “Unilateral Hearing Loss”.
- Ensure the CYP is using their hearing aid, if prescribed, consistently and effectively as this may support the stimulation of neurological pathways.
- If attention and focus difficulties are persistent and significant seek advice from professionals specialised in this area.

Other resources

www.berkshiresensoryconsortium.co.uk

www.ndcs.org.uk

www.understood.org

Schmithorst, V.J, Plante E and Holland S (2014) Unilateral deafness in children affects development of multi-modal modulation and default mode networks. *Frontiers in Human Neuroscience* 8:164

Related Sheets:

Unilateral Hearing loss