Listening fatigue in students who are deaf or hard of hearing (D/HH)

Students with hearing loss exert more listening effort than their hearing peers when processing speech. Lip reading, interpreting expressions and filling in the gaps in conversations involve active concentration, often for extended periods, and this can cause significant fatigue. Fatigue can affect the child's classroom performance, capacity to learn effectively, social relationships and quality of life.

Although fatigue has been a concern of parents of children with hearing loss for some time, research into listening fatigue associated with hearing loss in children is in its infancy. It is logical that if a child needs to put more effort into understanding speech, they will have fewer cognitive resources available for learning. Children with hearing loss have described feeling tired, drained, or exhausted after periods of concentrated listening. Increased listening effort can lead to cognitive fatigue, where the child is likely to have difficulty concentrating, become distractible and be less attentive. Cognitive fatigue, in turn, can lead to feelings of stress, tension and emotional difficulties.

The experience of listening-related fatigue in children with hearing loss varies widely. The amount of fatigue does not directly correlate with the degree or type of hearing loss. There are currently no specific tests for measuring listening fatigue in children with hearing loss. Nevertheless, it is important to recognise that children with hearing loss have an increased risk of fatigue at school. There are strategies for managing listening-related fatigue that can be implemented in the school setting.

Recognising the signs of listening fatigue

There are physical, cognitive, and socio-emotional indicators of fatigue in children. The student may lose focus on the task at hand, stop participating in class, appear distracted, irritable, tired, or even rest their head on their desk.

They could complain of headaches, display anxiety or stress, or become emotional. Children and adolescents might be reluctant to participate in activities after school or join in social situations that require listening.





Managing listening fatigue in children with hearing loss

There are some simple but effective ways to help manage listening fatigue.

- Optimise the listening environment through acoustic treatments of the floor, ceiling and walls in the classroom.
- Minimise background noise and provide good lighting in the classroom.
- Encourage students to wear their hearing devices consistently in the learning environment and use assistive technology where appropriate.
- Always provide captioned audio-visual content.
- Schedule teaching tasks that require substantial listening in the morning when the child is more likely to feel fresh and alert.
- Allow the student to have some quiet time or remove their listening devices for a time. Give a pass card to the student, which allows them to leave the classroom discretely if they feel anxious or overwhelmed. They will need an allocated quiet and supervised place to go when they leave class.

Children might not recognise that their fatigue is related to their hearing loss and listening demands in the classroom. Professionals working with the students can:

- Help them to understand how their hearing loss might result in listening fatigue.
- Introduce them to coping strategies that might limit ongoing fatigue and its negative consequences.
- Teach them how to express their concerns, ask for adjustments or request time-out.

Parents and teachers can assist students with hearing loss to develop self-advocacy skills to manage their own listening needs confidently.

References

Bess, F. H., Davis, H., Camarata, S., & Hornsby, B. W. Y. (2020). Listening-related fatigue in children with unilateral hearing loss. Language, Speech, and Hearing Services in Schools, 51, 84-97. https://doi.org/10.1044/2019_LSHSS-OCHL-19-0017

Bess, F. H., & Hornsby, B. W. Y. (2014). Commentary: Listening can be exhausting—Fatigue in children and adults with hearing loss. Ear & Hearing, 35, 592-599. https://doi.org/10.1097/AUD.00000000000099

Davis, H., Schlundt, D., Bonnet, K., Camarata, S., Hornsby, B., & Bess, F. H. (2021). Listening-related fatigue in children with hearing loss: Perspectives of children, parents, and school professionals. American Journal of Audiology, 1-12. https://doi.org/10.1044/2021_AJA-20-00216

Hornsby, B. W. Y., Davis, H., & Bess, F. H. (2021). The impact and management of listening-related fatigue in children with hearing loss. Otolaryngologic Clinics of North America, 54(6), 1231-1239. https://doi.org/10.1016/j.otc.2021.07.001

