

AG Bell FALL FORUM

October 16, 2025



AUDIBILITY OVER EVERYTHING: Real-World Access for Real-World Kids

Background

Audibility is the foundation of spoken language development for children who are deaf or hard of hearing. Regardless of technology — hearing aids, cochlear implants, gene therapy, or future devices — children must have consistent, reliable access to the full range of speech sounds. Without audibility, therapy and family effort will not be able to help children who are deaf or hard of hearing reach their full potential.

Too often, we work on a failure-based platform. Children are fit with hearing aids and when those fail, we start talking about cochlear implants. This magnifies the perception of cochlear implants being the technology of last resort, creating an emotional barrier to cochlear implantation. Through lecture, discussion, and interactive breakout sessions, the fall forum will challenge hearing care providers to return to your roots and think about audibility first. Technology should be chosen based on what gives the child the most audibility, and THAT should be the primary focus. We hope to give you the tools to know what and why audibility matters, how to ensure a child has and retains appropriate audibility, and how to work with families in a positive and non-denominational approach to technology selection.

For the breakout and discussion groups, please refer to these Case Studies:

Case Study 1: [GLORIA](#)

Case Study 2: [ANTHONY](#)

Case Study 3: [HARRIETT](#)



SUGGESTED READINGS:

McCreery, R. W., Walker, E. A., Stiles, D. J., Spratford, M., Oleson, J. J., & Lewis, D. E. (2020). Audibility-Based Hearing Aid Fitting Criteria for Children With Mild Bilateral Hearing Loss. *Language, speech, and hearing services in schools*, 51(1), 55–67. <https://pmc.ncbi.nlm.nih.gov/articles/PMC7251589/>

McCreery, R. (2021). 20Q: Developments in pediatric amplification – audibility, mild hearing loss and more. <https://www.audiologyonline.com/articles/20q-developments-in-pediatric-amplification-27873>

Wiseman, K. B., & McCreery, R. W. (2023). Quantifying Access to Speech in Children with Hearing Loss: The Influence of the Work of Pat Stelmachowicz on Measures of Audibility. *Seminars in hearing*, 44(Suppl 1), S17–S28. <https://pmc.ncbi.nlm.nih.gov/articles/PMC10033202/>

“[Example Language](#)” handout.

Wiseman, K. B., Sapp, C., Stiles, D., Walker, E. A., & McCreery, R. W. (2025). The Speech Intelligibility Index: Tutorial and Applications for Children Who Are Deaf and Hard of Hearing. *American journal of audiology*, 34(3), 467–483. https://doi.org/10.1044/2025_AJA-24-00267.

Infants and Language Learning – Yale University Press. (2020). <https://yalebooks.yale.edu/2020/05/22/infants-and-language-learning/>
[Read Excerpt.](#)

TERMS to be Familiar With

ESRT (ELECTRICALLY EVOKED STAPEDIAL REFLEX THRESHOLD)

A measure of the lowest electrical stimulation level from a cochlear implant that triggers the stapedial reflex (middle ear muscle contraction). Clinicians use ESRT to help set comfortable upper stimulation levels during programming.

DSL (DESIRED SENSATION LEVEL)

A widely used hearing aid fitting prescription that sets target amplification levels across frequencies to maximize audibility while keeping sounds comfortable. Designed especially for children, it ensures soft speech cues are accessible without making loud sounds too loud.

SII (SPEECH INTELLIGIBILITY INDEX)

A numerical score (0–1.0 or 0–100) that estimates how much of the speech signal is audible to a listener. Higher SII values = better access to speech. It helps predict spoken language outcomes and guide fitting decisions.

RECD (REAL EAR TO COUPLER DIFFERENCE)

A measurement comparing sound level in a child's ear canal to the level in a standard coupler. Used to individualize hearing aid fitting for children's smaller ear canals, ensuring accurate amplification.

S-REMS (SIMULATED REAL EAR MEASUREMENTS)

A way of performing hearing aid verification in a test box using measured RECDs rather than making measurements in a child's ear. Verification uses running speech instead of tones to measure how well a hearing aid delivers amplified speech to the ear canal. It shows whether speech is audible at soft, average, and loud levels.

OTICON SENSEI PRO SP / OTICON PP (POWER PLUS)

Power behind-the-ear hearing aids by Oticon.

CNC (CONSONANT-NUCLEUS-CONSONANT WORD TEST)

A standardized test of word recognition using monosyllabic words (e.g., "cat," "dog"). Often used with cochlear implant recipients to measure open-set speech perception. The child hears a recording of the word and repeats back what they hear. It is scored in percent correct.

MED-EL FLEX24

A flexible 24-mm cochlear implant electrode array by MED-EL, designed to preserve delicate inner ear structures and residual low-frequency hearing. Often used in cases where hearing preservation is a goal.

EAS (ELECTRIC ACOUSTIC STIMULATION)

A combined approach using a cochlear implant for high frequencies and a hearing aid for low frequencies in the same ear.

Candidates/Recipients: Typically patients with good low-frequency hearing (≤ 65 dB HL up to 500 Hz) but severe-to-profound high-frequency loss. EAS lets them keep natural low frequency sounds while gaining clarity from the implant.

LITTLEARS

A parent-report questionnaire developed by MED-EL that tracks early auditory behaviors and listening development in infants and toddlers with hearing aids or cochlear implants.

STANDARD SCORE

A statistical score that expresses a child's performance relative to same-age peers, based on test norms. Typically has a mean of 100 and standard deviation (SD) of 15. Example: a score of 85 = 1 S D below average.