

Assessment Strategies for Hearing Instrument Fitting

The four chapters contained in this Section on “Assessment Strategies for Hearing Instrument Fitting,” will be particularly useful to clinicians who are confronted regularly with the challenge of delineating the auditory status of infants and young children. The goals of the comprehensive audiological assessment are to define the hearing loss, monitor the stability of the impairment over time, and use specific threshold information in the selection and refinement of the hearing instrument fitting. All of these goals are requisite to ensuring a sound foundation for early intervention.

In their chapter “Some Factors that may Influence the Accuracy of Auditory Brainstem Response Estimates of Hearing Loss,” Michael Gorga and Stephen Neely discuss the electrophysiologic technique that has become a primary component of the pediatric test armamentarium: the auditory brainstem response (ABR). The threshold estimates obtained in the ABR assessment allow clinicians to characterize the hearing loss of infants too young or too compromised to provide reliable behavioral responses. This chapter describes the factors that can enhance or reduce the precision of this invaluable test technique for pediatric audiological assessment.

Next, Terence Picton and his colleagues provide a chapter on a new electrophysiologic method just becoming available to clinicians. In “Possible Roles for the Auditory Steady-State Responses in Fitting Hearing Aids,” Picton and colleagues review auditory steady-state responses (SSR) and describe the usefulness of this technique for identification and assessment of hearing loss in infants and young children. In addition, the authors discuss the potential use of SSR in the intervention process.

In their chapter “Growth of Loudness Assessment in Children using Cross-Modality Matching (CMM),” Yula Serpanos and Judith Gravel describe a means of obtaining loudness judgments from young children using a psychophysical procedure that uses the child’s unimpaired visual channel for examining the perception of loudness. If found to be reliable, this behavioral method potentially may be useful for further individualizing the fitting of hearing instruments in preschoolers and school-aged children in the clinical situation.

Finally, Judith Gravel describes the assessment problems that pediatric audiologists might encounter during the comprehensive assessment of hearing in infants and young children. In “Potential Pitfalls in the Audiological Assessment of Infants and Young Children,” she stresses the need for a test battery approach to audiological assessment, a means of avoiding the audiological misdiagnoses.

With the growth of newborn hearing screening programs, pediatric audiologists are confronted with the need to provide timely and accurate assessments of auditory function so that they can help parents make informed choices about their child’s intervention plan. This section is intended to suggest ways clinicians might ensure the accuracy and increase the usefulness of the pediatric assessment battery.

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