

# Treatment Efficacy Summary



AMERICAN  
SPEECH-LANGUAGE  
HEARING  
ASSOCIATION

## Audiologic (Re)habilitation For Children With Cochlear Implants

The goal of technology for children with hearing loss is to enable them to access sufficient auditory information to learn speech and language through the auditory channel. Children with severe and profound hearing loss use a variety of sensory aids to access sound. Hearing aids may provide sufficient auditory access for children with mild to fairly severe hearing loss, but children with severe and profound hearing loss may not receive sufficient auditory information when using hearing aids alone. Cochlear implants are able to provide significantly more auditory access to children with severe and profound hearing loss than is available to them through hearing aids.

Although cochlear implants provide significantly more auditory access than is available through hearing aids and FM systems, they do not provide normal hearing. Cochlear implant users must learn a new way of processing sound and maximizing the effectiveness of the device. In addition, even if children receive implants by 12 months of age, as per current FDA guidelines, they will have had a significant period of time prior to implantation during which they will not have had sufficient auditory access, even if they used hearing aids. As a result, they will be delayed in use of audition and in speech and language. Therefore, all children with cochlear implants are

in need of intensive audiologic (re)habilitation services.

Audiologic (re)habilitation may encourage the use of audition alone (auditory-verbal) or combine audition with visual cues (auditory-oral). Therapy should begin as soon as hearing loss is identified and the child is fit with amplification, ideally prior to six months of age.<sup>i</sup> Therapy initially focuses on teaching the child to attend to sound, alerting when sound is present, then moves through discrimination of suprasegmental aspects of speech, through discriminating speech sounds, and moving into using audition to learn language.<sup>ii, iii</sup>

Both audiologists and speech-language pathologists are uniquely qualified to provide audiologic (re)habilitation services to children with hearing loss. Therapy may be provided in a clinic, school, or private practice setting. In addition to working with the child, the therapist works with families to teach them how to provide auditory, speech and language stimulation to their children so that children will have exposure to auditory learning throughout the day.

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<sup>i</sup> Yoshinaga-Itano, C., Sedey, A., Coulter, D., & Mehl, A. (1998). Language of early- and later-identified children with hearing loss. *Pediatrics*, 102, 1161–1171.

<sup>ii</sup> Estabrooks, W. (Ed.). (1998). *Cochlear Implants for Kids*. Washington, DC: Alexander Graham Bell Association for the Deaf.

<sup>iii</sup> Estabrooks, W. (Ed.). (2001). *50 Frequently Asked Questions about Auditory-Verbal Therapy*. Toronto: Learning to Listen Foundation.