

SPEECH PERCEPTION RESULTS FOR THE NUCLEUS MULTIPLE CHANNEL COCHLEAR IMPLANT IN CHILDREN AND ADULTS WITH RESIDUAL HEARING

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Speech perception results for profoundly deaf children and adults using advanced speech processing strategies for the Nucleus multiple-channel cochlear implant have continued to improve, and are now better than those reported in research with severely-to-profoundly hearing-impaired people using aided residual hearing. Given this, it is appropriate to consider cochlear implantation for this patient group. Speech perception results for severely-to-profoundly and profoundly hearing-impaired children (n=114) from Melbourne and Sydney, and severely hearing-impaired adult patients (n=48) from centres in the United States are presented. Results for the children show open-set speech perception for all of the implanted children who had preoperative aided residual hearing up to 2kHz. Results for the children with little residual hearing were far more variable. Results for the severely deaf adult group show that mean CID sentence scores improved from 6% preoperatively to 51% postoperatively. The mean open-set sentence score increased to 76% for the subgroup of patients using the new SPEAK speech processing strategy implemented in the Spectra-22 speech processor. The results suggest that the Nucleus multichannel cochlear implant would be effective for selected severe-to-profoundly hearing impaired adults who obtain little benefit from hearing aids.



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