The development of multiple channel cochlear implants has been a significant advance in the rehabilitation of profound hearing loss. Speech perception benefits have been particularly evident for postlinguistically deafened adults, who as a group have shown not only supplementation of lipreading scores but also significant comprehension of words and sentences using an implant alone, without the aid of lipreading. In many cases, patients are able to use their implant for telephone conversation. Speech perception benefits for adult users have increased with advances in speech processing and improved means of habilitation. These improvements in open-set speech benefits for adult users have resulted in a steady increase in group mean scores and a reevaluation of selection criteria for cochlear implantation. In the initial development of cochlear implants, only those with little or no residual hearing were considered as candidates. Current selection criteria now include those with substantial residual hearing, who may score up to 40% in the best-aided condition on word and sentence speech perception tests. In order to provide realistic expectations for prospective cochlear implant patients, it is important to establish the relationship of many preimplant factors to postoperative speech perception benefits. For severely hearing impaired adults, the relationship between preoperative residual hearing, as measured by aided word and sentence speech perception test scores, and postoperative speech perception benefits is of significant interest. Analysis of data collected over a 15 year period for adult patients is presented. The rationale for conducting full speech perception assessments for all potential cochlear implant patients is stressed.
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