SPEECH PERCEPTION BENEFITS FOR CHILDREN USING THE 22-CHANNEL MELBOURNE/COCHLEAR HEARING PROSTHESIS


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In 1985, the first child was implanted with the Cochlear 22-channel cochlear prosthesis at the University of Melbourne/Royal Victorian Eye & Ear Hospital Cochlear Implant Clinic. There are now 42 children who have received the device in Melbourne. Analysis of patient details for these children show a very heterogeneous group, with a wide range in age, hearing thresholds, duration of deafness and aetiology. The major aetiologies found were either a congenital profound deafness; or a hearing loss due to meningitis. In all but 3 cases, the children are using 15 or more electrodes in the array. Speech perception benefits have been analyzed according to a six-level hierarchical classification scheme. All of the children achieved a minimum benefit of discrimination of suprasegmental information (Category 2), and 55% of the children achieved open-set understanding of unfamiliar speech material without the aid of lipreading (Categories 5 & 6). Detailed analysis suggests that the majority of children achieving open-set speech perception benefits had more than one year of experience with their implant, and less than seven years of profound deafness prior to implantation.
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