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# The Effects of Post-Implant Habilitation on Long-Term Outcomes for Children Using Multichannel Cochlear Implants

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Those working in the cochlear implant field advocate a regular habilitation program for young children receiving implants. Developing auditory skills and the incorporating these into general language development are considered to be key areas for such programs. Investigations of speech perception and language outcomes have demonstrated that the emphasis of spoken language development appears to enhance the results for implanted children. It remains difficult, however, to demonstrate the effect of habilitation as a separate factor and to determine how much individual attention is desirable for each child. This preliminary study considered the long term speech perception and language outcomes for two groups of children who received Nucleus cochlear implants in Melbourne. The first group ( $n = 17$ ) was identified as receiving regular habilitation from the Melbourne Cochlear Implant Clinic over a four year post-operative period. A second group ( $n = 11$ ) was identified as receiving very little regular habilitation over the post-operative period. Language and speech perception results for these two groups showed significant differences in performance on a wide range of measures. The group who received regular,

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formal habilitation demonstrated better performance on all measures. These groups included only congenitally, profoundly hearing-impaired children and did not differ significantly on mean age at implant or experience at the time of assessment. A more comprehensive study is needed to clarify these results on a larger group of children, and to control for additional confounding variables. Nonetheless, these results provide support for the incorporation of regular long-term habilitation into cochlear implant programs for children.



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