

Critical Review: Does electroacoustic stimulation provide more benefit to speech recognition compared to electrical stimulation for hybrid cochlear implant candidates?

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This critical review examines the evidence regarding hearing performance in hybrid implant recipients. Study designs include cohort, within groups, repeated measures, and single group, pre- and post-test. Overall, the evidence gathered suggests electroacoustic stimulation provides more benefit in speech in noise listening conditions compared to electrical stimulation alone. Recommendations for future research and clinical practice are provided.

Introduction

Advances in surgical techniques and procedures have made it possible to preserve low-frequency hearing post cochlear implantation surgery. For post-lingually deafened implant recipients, the preservation of acoustic hearing may add additional benefit to hearing in regards to speech recognition and sound quality of speech and music.

Pre- and postoperative hearing level thresholds are

noise recognition results indicated that two electroacoustic-users performed better than all three cochlear implant-only users post-operatively.

The greatest limitation in this study

electrical and acoustical speech processing.