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Vocalizations of deaf infants before and after cochlear implantation

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Critical aspects of spoken language depend on perceiving and understanding speech sounds. For deaf infants, however, neither sound perception nor awareness of the sound-making consequences of their actions is available. The goal of this study was to uncover and document early, measurable effects of hearing loss on infant vocalization and changes in these behaviors following cochlear implantation. Participants were 8 deaf infants, 7-11 months old, and 8 infants with cochlear-implants, 12-20 months old and 1-6 months post-implantation. Dependent variables include number of vocalizations, mean vocalization duration, and mean frequency before and after cochlear implantation and in relation to reduplicated babble onset and word production. Post-implant changes in vocal behaviors may have clinical implications for decisions regarding age of implantation and auditory habilitation as well as for understanding post-implant variability.