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Research Goals

- To examine the effects of cochlear implant experience on young deaf children's
 - Prelinguistic speech development
 - Phonological development
 - Spoken language ability
 - Speech intelligibility
- To develop clinically useful assessment tools for young children with hearing loss
 - Speech production
 - Speech perception
 - Oral language ability

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Frequently Used Methodologies

Data Collection

- Video and audio-taping of parent-child interactions
- Parent questionnaires
- Articulation and language tests
- Criterion-referenced speech perception and production tasks

Data Analysis

- Auditory perceptual and spectrographic classification of child vocalizations
- Phonetic transcription
- Listener judgments of speech intelligibility

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Main Findings of Previous Studies

- Prelingually deafened children who receive cochlear implants before 3;0 (years; months) often make relatively rapid gains in vocal development and early spoken language abilities.
- Early speech development can be used to assess benefit from cochlear implant experience
- The time-course of gains in prelinguistic speech development appears to be influenced by age at implantation.

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Future Directions

- Further study of spoken language development in very young CI recipients regarding...
 - the time-course and sequence of early speech development
- speech and language comparisons with typically developing infants and toddlers
- the effects of age at implantation on speech development and oral language abilities

Potential for interdisciplinary collaboration with researchers in child development, psychology, education, and healthcare

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