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KEYWORDS: Cochlear Implant, Consonant Sounds, Articulation

WHAT WAS STUDIED, HOW WAS IT STUDIED AND RESULTS: CONSONANT SOUND PRODUCTION

Research Questions:

- Do young CI recipients produce consonant sounds as correctly as children with normal hearing after two years of implant use?
- Does the location of a sound in a word (e.g. '**p**ig' vs. 'cu**p**') change how correctly children with CIs produce sounds?
- Do children with CIs develop consonant sounds in the same order (i.e. early sounds first, later sounds last) as typically developing children?

Articulation Outcome: Assessment Link Between Phonology and Articulation-Revised Test

- The examiner said a short sentence, showed a picture related to the sentence to the child, and then had the child repeat the sentence.

WHAT THEY FOUND:

Children with CIs are delayed in sound development compared to children with typical hearing. This is likely due to children with typical hearing having more experience listening to sounds. It is likely that children with CIs will improve their sound productions over time. Both groups produced sounds at the beginning of words better than sounds at the ends of words. This is likely due to sounds at the beginning of words being easier to hear and identify. Children with CIs develop sounds at the beginning of words in the same order as their peers, but in a slightly different order for sounds at the ends of words.

HOW THIS INFORMATION MAY BE USEFUL TO YOU AND YOUR CHILD: Knowing that children with CIs are delayed in consonant production in the first several years after activation will help you know what to expect of your child's speech sound development. Knowing the order sound acquisition of children with CIs will help you listen for sounds your child will likely produce next.

- **WHO WAS STUDIED:**

Number of participants: N=22 children

- 11 with cochlear implants, 11 age and gender matched with normal hearing

Assessment age range: 2 years 9 months - 5 years 1 month

WHAT STILL REMAINS TO BE ANSWERED: This study did not look at sound development in children who had greater than two years of CI use. Further studies of children with 3-8 years of CI use will help us understand overall pace of sound development in children with CIs and how accurate children with CIs eventually become after further sound acquisition is not expected.

WHERE CAN I FIND MORE INFORMATION:

How Does Your Child Hear and Talk? Retrieved From: https://www.asha.org/public/speech/development/chart/

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