Auditory Factors Driving Cochlear Implant Outcomes in Adults & Children: Channel Independence & Spectrotemporal Processing

INTRODUCTION

Recent studies from the presenters’ laboratory demonstrate a relationship between electrode-to-modiolar distance and channel independence. Specifically, children and adults who use cochlear implants (CIs) (precurved electrodes) demonstrate performance gains up to 12 and 16 channels. The presenters’ working theory is that greater channel independence affords better spectrotemporal resolution. This presentation describes the relationship between spectrotemporal processing and CI outcomes for adult and pediatric CI users.

This course was presented and recorded at the 2019 ASHA Convention. This session was developed by, and presenters invited by, Hearing, Tinnitus, and Vestibular Science.

LEARNING OUTCOMES

You will be able to:

- describe the impact of electrode-to-modiolar distance on auditory measures of channel independence
- state the relationship between spectral resolution and speech recognition for children and adults who received cochlear implants
- state the relationship between temporal resolution and speech recognition for children and adults who received cochlear implants

PROGRAM HISTORY and IMPORTANT INFORMATION

Recording length: 52 minutes
ASHA Convention session date (session #1430): November 22, 2019
End date: November 22, 2024

To earn continuing education credit, you must complete the learning assessment on or before November 22, 2024.

This course is offered for 0.05 ASHA CEUs (Advanced level, Professional area).