Study Published in Otology & Neurotology Shows Benefits of Cochlear Implant Sound Processor with Dual-Microphone Technology

The Associated Press

Cochlear Americas, the world's leading implantable hearing solutions company, announced today the results of a new study published in Otology & Neurotology, which demonstrates the benefit of the dual-microphone technology in the Cochlear Nucleus 5 CP810 Sound Processor. The study illustrates how the Nucleus 5 sound processor provides significantly better speech recognition in quiet and in noise when compared with the performance of the Cochlear Nucleus@ FreedomT processor.

"Cochlear implants are highly successful devices for many adults who have severe to profound hearing loss; however, most recipients continue to experience difficulty understanding speech in the presence of competing noise," said Jace Wolfe , Ph.D., CCC-A, Hearts for Hearing, Oklahoma City, lead study investigator. "Results from this study indicate that the Nucleus 5 sound processor provided a significant improvement in speech recognition relative to the performance with the previous generation sound processor." The Nucleus 5 sound processor contains two microphones, which are precisely calibrated and phase matched to +/- 1 dB tolerance to ensure accuracy and consistency. With two microphones the Nucleus 5 provides a directional mode called "SmartSound@ zoom" technology, which significantly lessens competing background noises, as well as enhancements in the signal processing chip to enhance speech recognition in quiet and noise.

"This study demonstrates our commitment to continually improving the experience of our recipients," said Christine Menapace, MA, CCC-A, Vice President of Clinical, Training and Education at Cochlear. "Every new generation of the Nucleus Sound Processor has been backwards-compatible, enabling our cochlear implant users to upgrade to the latest technological improvements, such as the dual-microphone 'SmartSound@ zoom' technology." To hear the benefits of the dual microphones on the Nucleus 5 sound processor first-hand, visit http://www.cochlearamericas.com/performance or download the "Dual Mic Zoom Technology from Cochlear" iPad app for free from iTunes@.

About the Study This study - "Benefit of a Commercially Available Cochlear Implant Processor With Dual-Microphone Beamforming: A Multi-Center Study" - was conducted across four cochlear implant clinics in the United States. Thirty-five adult Nucleus recipients were upgraded to the Nucleus 5 Sound Processor and speech recognition was assessed with CNC monosyllabic words in quiet and sentences in noise from the BKB-SIN (Bamford-Kowal-Bench Sentences in Noise) test.

The primary objective of the study was to compare speech recognition in quiet and in noise for the Nucleus Freedom and Nucleus 5 CP810 Sound Processors set to the

manufacturer's default user programs for quiet and noisy environments.

About Cochlear Implants Cochlear implants are a proven medical option for infants as young as 12 months old with profound hearing loss in both ears, children aged two and older with severe-to-profound hearing loss, and adults with moderate-to-profound hearing loss in both ears.

They are electronic devices, which bypass damaged hair cells in the inner ear, or cochlea, and stimulate the hearing nerve directly.

About Cochlear Cochlear is the world leader in advanced hearing technologies. Since launching the first multichannel cochlear implant system 30 years ago, Cochlear Limited and its U.S. headquarters have brought the miracle of sound to more than 250,000 people with hearing loss across the globe. For more information about Cochlear Americas products, please visit www.cochlearamericas.com.

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