

Learning Goals



After participating in this session, professionals should be able to:

- List common concerns expressed by cochlear implant candidates and identify counseling techniques that may be used to address these concerns
- List factors which influence success with a cochlear implant and apply these factors to cases to predict possible outcome with a cochlear implant
- Identify resources to support candidates through the candidacy journey and support rehabilitation of cochlear implant recipients
- List common speech perception tests used for monitoring performance and explain the importance of monitoring performance in cochlear implant recipients



Cochlear's Mission





We help people hear and be heard.

We **empower** people to connect with others and live a full life.

We **transform** the way people understand and treat hearing loss.

We **innovate** and bring to market a range of implantable hearing solutions that deliver a lifetime of hearing outcomes.





Common Candidate Questions



- Wouldn't a stronger hearing aid be a better choice?
- Am I too old for a cochlear implant?
- My hearing aids are at least doing something for me – why would I give that up for a cochlear implant?
- I don't think surgery is necessary isn't it better to just wait?
- What would a cochlear implant do for me?
- What if I lose my hearing?



Types of Counseling



"Knowledge does not change behavior"

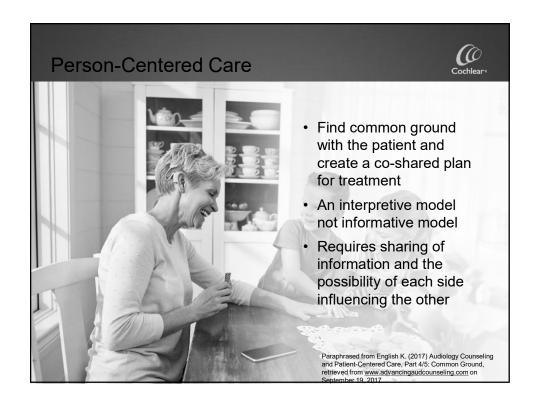
Informational

- Providing information to the patient
- Knowledge dissemination
- · Clear, relevant information

Emotional

- · Addressing patient concerns
- How the patient feels about the disorder and/or treatment

Adapted from: English, K (2015, December 20) Patient Education: The flip side of counseling. Retrieved from: http://advancingaudcounseling.com/?p=293



Goal Setting with COSI



- The Client-Oriented Scale of Improvement (COSI) can be used as a formal goal-setting process with your patients
- Available at no charge from National Acoustic Laboratory (www.nal.gov.au)
- Patient lists the 4 or 5 most challenging situations and picks 2 to focus on; develops expectations along with the Aud about how much improvement is expected

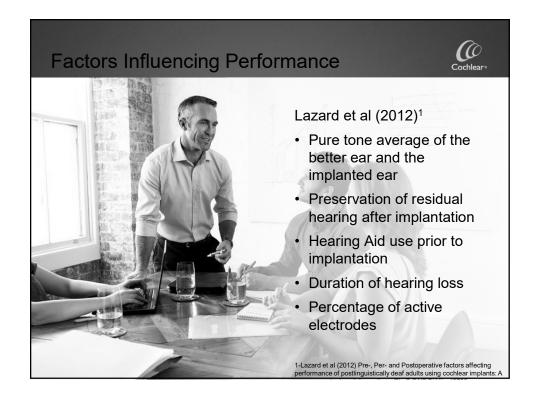
NAL
CLIENT ORIENTED SCALE OF IMPROVEMENT

Name:
Category. New Return
Date: 1. Needs Established
2. Outcome Assessed

SPECIFIC NEEDS

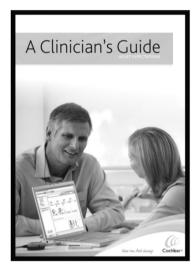
Indicate Order of Significance

Indicate Order of Significance



Clinician's Guide to Managing Expectations





N461651-461653 lss1 Aug13

- Provides a roadmap of expected outcomes for different types of recipients
- Lists ideas for aural rehabilitation and practice
- Gives suggestions about possible emotional reactions a recipient may have
- Can be used by the clinician and recipient together
- Available on myCochlear Clinic

Adult Expectations



Post-lingual Short Duration (with or without residual hearing)

Post-lingual Medium-Long Duration (poor residual hearing) Post-lingual Medium-Long Duration (with residual hearing)

Pre-lingual Short Duration Auditory-Oral History

Pre-lingual Medium-Long Duration (with or without residual hearing)

Adult Expectations Post-lingual/Short Duration/with or without residual hearing

- · Speech may sound familiar but unrecognizable
- · May detect sounds across the speech range
- · May recognize common phrases
- May hear environmental sounds
- · May feel disappointed or nervous by the initial sound quality of the device
- Suggest practicing every day for at least 15 minutes

From: Dickson (2013) A Clinician's Guide to Adult Expectations, Cochlear Ltd (N461651-461653 ISS1 Aug13)

Adult Expectations Post-lingual/Short Duration/with or without residual hearing Month 3 · May feel the quality of the sound is good enough to listen to music

- May participate in conversations in quiet on unknown topics without lipreading
- · May comprehend weather or familiar news on radio
- · May feel confident to experience activities once too difficult to contemplate
- Recommend experiencing lots of different environments

Adult Expectations Post-lingual/Short Duration/with or without residual hearing Activation Month 3 Long Term

- May feel sound quality is as good as before the hearing loss began
- May achieve near 100% on speech perception testing in quiet
- May be able to use the phone whenever necessary
- May feel some disappointment that some communication environments remain difficult and some information is missed

From: Dickson (2013) A Clinician's Guide to Adult Expectations, Cochlear Ltd (N461651-461653 ISS1 Aug13)

Adult Expectations Post-lingual/Medium-Long Duration/with residual hearing Activation Month 3 Long Term

- Speech may not sound familiar but rather like static, distorted unrecognizable sounds, high pitched squeals
- Input may seem too loud, especially high-pitched sounds
- May discriminate phrases based on length (ie, "hello" vs "how are you")
- May not feel comfortable wearing the device all day
- May feel frustrated or depressed at inability to make sense of the sound

Adult Expectations Post-lingual/Medium-Long Duration/with residual hearing Activation Month 3 Long Term

- Signal may be more normal or familiar, now, more speech-like than noise
- May recognize common words and phrases from a familiar speaker
- May hear name called in noisy environments even when not expecting it
- · May begin to feel slightly more independent in daily life
- · Suggest continued listening practice

From: Dickson (2013) A Clinician's Guide to Adult Expectations, Cochlear Ltd (N461651-461653 ISS1 Aug13)

Adult Expectations Post-lingual/Medium-Long Duration/with residual hearing Activation Month 3 Long Term

- May feel the sound through the implant is clear and sounds "normal"
- · May show marked improvement in speech perception scores
- May have successful phone calls and follow the conversation when initiated and controlled
- · May have greater independence in all aspects of daily life
- May feel surprised that more practice and guidance is needed to continue to improve after a year of implant use

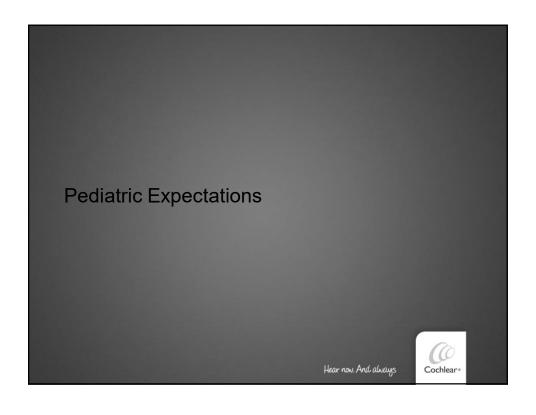
Adult Expectations Post-lingual/Medium-Long Duration/without residual hearing Activation Month 3 Long Term

- May only hear static, squeaks, noise, beeps from signal
- · May detect sounds of speech across the various pitches
- · May recognize their own name when called
- May be disappointed in the quality of the sound provided by the implant
- May not tolerate wearing the implant for more than a few hours at a time

From: Dickson (2013) A Clinician's Guide to Adult Expectations, Cochlear Ltd (N461651-461653 ISS1 Aug 13)

Adult Expectations Post-lingual/Medium-Long Duration/without residual hearing Activation Month 3 Long Term

- · CI signal may sound clarer and more normal
- May show improvement in speech discrimination scores, up to 100% in quiet
- May comprehend books on tape, GPS instructions in car, talk radio, etc
- May have improved communication with lip-reading but still require lip-reading and captions
- May feel grateful for new abilities to live life much as before the hearing loss





Pediatric Expectations

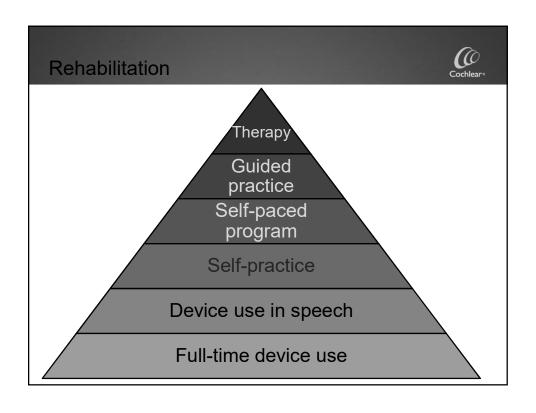


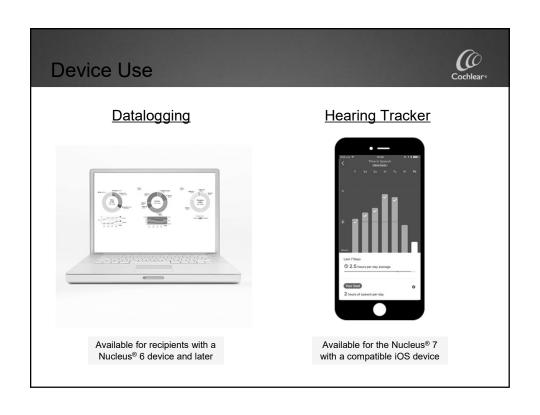
- Approximately 80% of parents reported their expectations were met1
- More than two thirds of parents reported their children were able to participate easily in a regular class1
- Parents assigned positive ratings to health-related quality of life, especially in the communication domain²

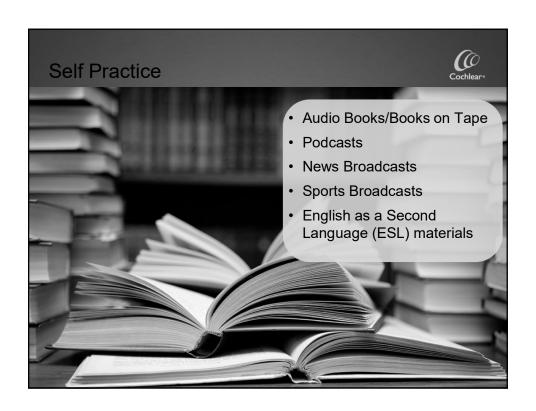


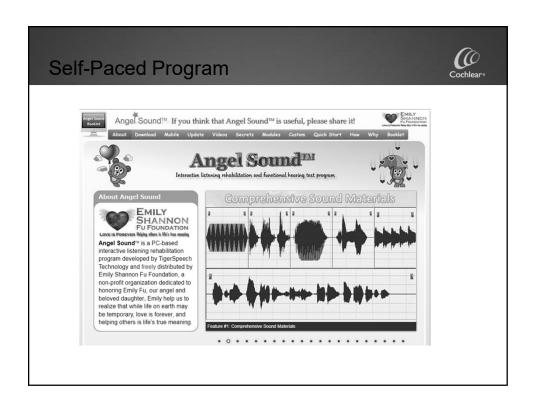
- 1 Punch R, Hyde MB (2011) Communication, psychosocial and education outcomes in children with cochlear implants and challenges remaining for professionals and parents. Int Journal Otolaryngology, (article ID 573280)
 2 Kumar et al (2015) American parent perspectives on quality of life in pediatric cochlear implant recipients. Ear Hear, 36:269-278.

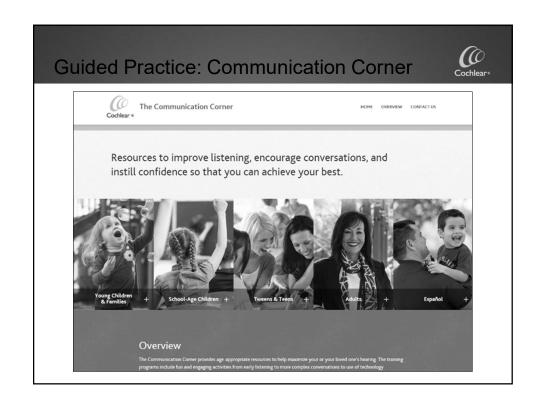












Ommunication Corner (cont.) Age-based programs Young Children and Families School age Children Tweens and Teens Adults Spanish Speakers Program descriptions Program samples Assessments on How to Get Started

Communication Corner (cont.)



- Young Children
 - Sound Foundation for Babies (English & Spanish)
 - Sound Foundation for Toddlers (English & Spanish)
- School Age
 - Sound Foundation for Children
 - LEAPing on with Language
- Tweens/Teens and Adults
 - Communication Strategies
 - > Analytic, Synthetic, Communication Skills
 - Telephone with Confidence (English & Spanish!)
 - Music HOPE Notes

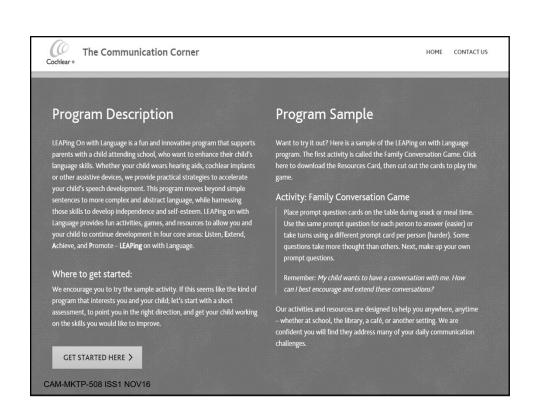








CONTACT US



Get Started Here · Each program is broken into sections Initial self-assessments provide guidance as to where to start Think about recent times you have used the telephone. How would you rate your ability to understand on the telephone? When considering your ability to use the telephone, please rate your skills for the following: 1. Understanding on the phone in a quiet situation 2. Understanding on the phone in a noisy situation 3. Understanding single words on the phone 4. Understanding when I know the topic of conversation in advance

Connected and Convenient

< PREVIOUS



NEXT >

Following the self-assessment, each person will receive:

- An email with "Where to start" and the first suggested lesson
- · One week later, they will get the second suggested lesson and a link to the entire program.
- Once they have signed up for one program, they have access to all programs.

Telephone with Confidence



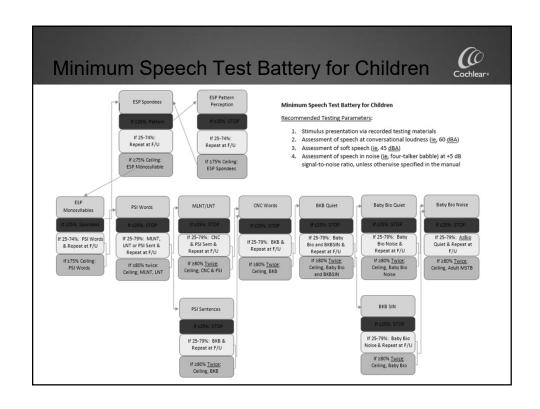
- Program and instructions are available from the Communication Corner
- 1-800-458-4999
- Daily word lists and passages are available online so recipient can follow along or "test" themselves
- · Available in Spanish and English
- · Gain confidence







The Minimum Speech Test Battery (MSTB) for adults was created by an independent working group The revised edition was released in July 2011 Includes test materials and instructions for testing Available from Cochlear (FUZ318) Score sheets are at www.auditorypotential.com 1-Auditory Potential (2011) Manual for the Minimum Speech Test Battery for Adult Cochlear Implant Users, downloaded from www.auditorypotential.com. April 2017



Follow-up: Adults



- Initial Activation (4-6 weeks post-op)
- · 2 week follow up
 - Counseling
 - Re-programming
- · 1 month visit
 - Counseling/review of DataLogging
 - Re-programming
- · 3 month visit
 - Counseling/review of DataLogging
 - Re-programming (as needed)
 - Speech Perception Testing
- · Annual/Bi-annual visit
 - Re-programming
 - Speech Perception Testing

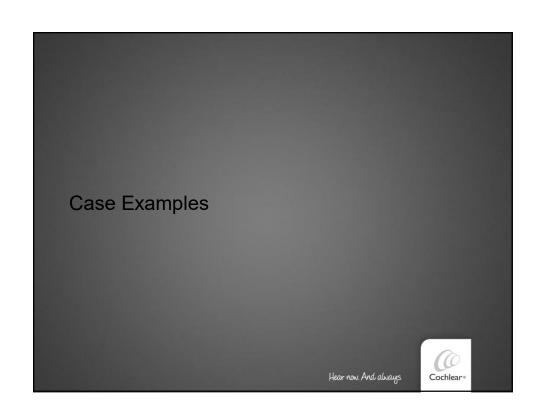


Follow-up: Pediatrics



- Initial Activation (4-6 weeks post-op)
- · 1 week follow up
 - Counseling
 - Re-programming
- Monthly/bi-weekly (as needed and dependent on age)
 - Counseling/review of DataLogging
 - Re-programming
- 3 month visit
 - Counseling/review of DataLogging
 - Re-programming (as needed)
- Annual visit
 - Re-programming
 - Speech Perception Testing





Case Example: Adult



- 86 year old who has had an implant for 7 years
- Reports a sudden decrease in performance
- His family notices he does not respond when spoken to and does not seem to understand them
- Family reports a fall in which he may have hit his head
- External equipment changed with no difference



	Pre-op	5 yr	Now
HINT	5%	98%	97%
CNC	0%	54%	52%
AzBio (+5 SNR)	DNT	76%	64%

Case Outcome



- On further questioning, family reports some difficulty in other areas, including memory concerns
- Mini Mental Status Exam completed and recipient referred for further evaluation of cognitive status
- Recipient continued using the implant successfully



TIP: Speech perception testing *before* the complaint was just as critical as testing after the complaint.

Case Example: Pediatric



- Three-year-old little girl who is 18 months post-activation
- Bilateral recipient at 18 months of age
- Receiving services through local school district
- Parents are concerned about her progress with her implant
- She is wearing her device full-time but they feel like she only uses a few words and her speech is "garbled"



	6 month post-op	1 yr post-op	Today
PSI	CNT	76%	100%
ESP Spondee	CNT	25%	100%
Oral Receptive Vocabulary (PPVT)	DNT	10 mo (age eq)	24 mo (age eq)
Oral Expressive Vocabulary (PPVT)	DNT	8 Mo (age eq)	20 mo (age eq)

Case Outcome



- Results of testing were shared with the family and school
- Family is bilingual; SLP felt vocabulary progress was on target given her use of two languages and time with implant
- SLP suggested continued focus on full time device use and time in speech



TIP: Pediatric monitoring should include speech and language progress in addition to speech perception testing

Summary





- Expectations should be addressed by setting specific goals with candidates and discussing their likelihood of reaching those goals with an implant
- Monitoring performance is beneficial to not only establish performance with the implant but to provide a baseline for future success
- Rehabilitation tools are available to help your patients achieve their best



