

Together we reach further

We understand it takes a village to raise a child with hearing loss and we are committed to partnering with you along a child's hearing journey. With access to a wealth of products, services and resources to enrich their hearing progress, a child with hearing loss can experience a world of possibilities.

Providing a child access to sound when hearing loss is first detected is very important.¹ For some children, hearing aids may be an effective option to treat hearing loss. However, as hearing loss progresses, it may still be difficult to hear speech and understand conversations clearly, even when using powerful hearing aids. This is when a cochlear implant may be a more effective solution to provide access to clearer sound. Receiving a cochlear implant early in a child's life can make a huge difference.¹⁻⁷ With a cochlear implant, children have a greater chance of realizing their personal best speech and language skills.²



PARTNERSHIP

Access to a range of resources and support



Support along a child's hearing journey

Parents can connect with other parents to obtain support and advice through the Cochlear Volunteer Program



Cochlear Family program

Fast support, personalized hearing resources and guidance along a child's hearing journey



School resource center

Designed to assist professionals with quick access to tools and materials to meet the auditory accessibility needs of children with cochlear implants or significant hearing loss



PROGRESS

Achieve optimal outcomes



Develop spoken language early

Children develop better spoken language if they receive their cochlear implants as early as possible^{1,2}



Achieve outcomes on par with typical-hearing peers

Acting early can put the child's speech and language development at the same level as their hearing peers³



Establish better language skills

Children implanted prior to 12 months of age can develop better language skills than those who are implanted later³



POSSIBILITIES

Unlock a world of possibilities



Attend mainstream education

In a study, 80% of children who received a cochlear implant less than 18 months old attended mainstream schools⁵



Enhance social skills

With better language skills children can make new friends more easily⁶



Support long term speech and language abilities

Successful literacy and academic achievement is rooted in preschool language skills⁷

"Having the right guidance and support is really important and very crucial to Jacob's hearing journey."

Rana K., Mother of Jacob, Cochlear Nucleus Recipient

In a study: 80% of children who received cochlear implants younger than 12 months demonstrated comprehensive understanding of vocabulary within the normal range by school entry.

Dettman (2016)⁴

"Estimates of turn-taking interactions with children 18 to 24 months old predicted IQ and (spoken) language skills 10 years later."

Gilkerson (2018)⁸

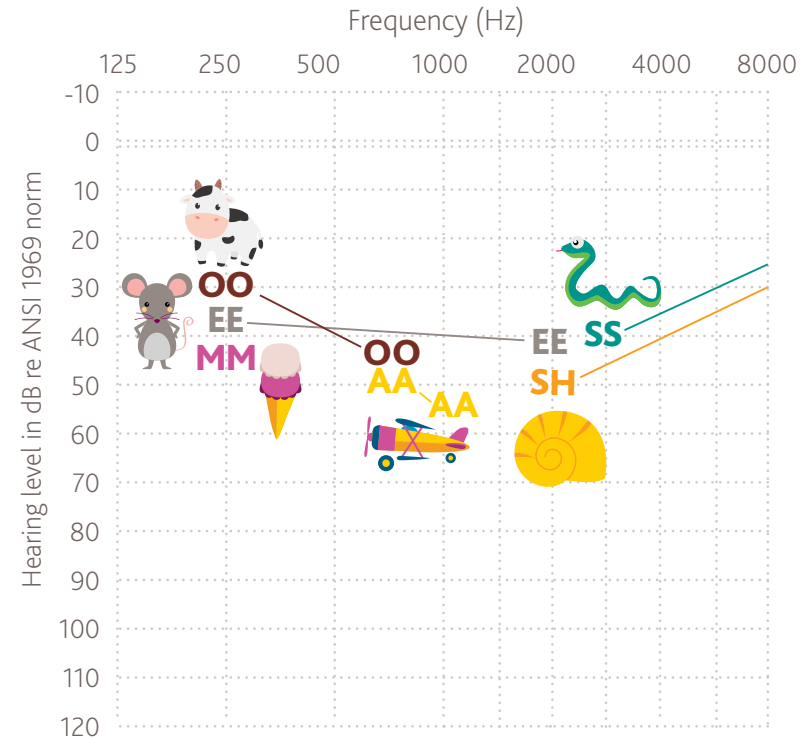
Are they hearing their best?

The Ling 6 Sound Test is a quick and easy way to check on a child's ability to detect sounds and see if their hearing technology is giving them access to the full range of speech sounds.

The Ling 6 sounds are: mm, oo, ee, aa, sh and ss. This test may also be used as a discrimination task, to see if the child can differentiate between two sounds, or as an identification task, where the child reproduces a sound or points to a picture or the toy that represents the sound they heard.

The following can help you check how well a child is hearing:

- ✓ Make sure the area is quiet and calm.
- ✓ Before presenting the sound, make sure the child's gaze is set on an object, without over-engaging them with the object.
- ✓ Do not let the child see you say the sounds — this way you can be sure the child is actually hearing you.
- ✓ Say the sounds in random order each time, using a conversational loudness level of your voice without exaggerating one sound over another.
- ✓ Initially, speak near the microphone of the hearing device so the speech signal is clear and audible. Once the child responds at a shorter distance, increase the distance between you and their hearing device.
- ✓ Check the right ear alone, the left ear alone, and both ears together.
- ✓ In a quiet environment, the child should be able to detect all of the Ling 6 sounds at close distance (e.g., 3 feet or 1 meter) and at longer distances (e.g., approximately 9 feet or 3 meters).



Adapted from www.jtc.org

Ling 6 sound levels above are an example only and demonstrate the range of sounds in the speech spectrum.

What counts as a response?



An infant may turn their head, look at you, smile, or start or stop sucking in response to the sound.



Young children may demonstrate that they detected the sound by responding as part of a game (e.g. dropping a block into a bucket, placing a peg in a board), raising their hand, repeating the sound or saying that they heard the sound.



Keep in mind that other factors such as a child's attention to the task, developmental age, and listening experience can impact results.

Hear now. And always



Cochlear®

Checklist for optimal hearing for children with hearing loss:

- Has a full audiological assessment recently been completed?
- Does the child use their hearing device(s) all waking hours?
- Are the hearing device(s) checked at least once every day to be sure they are working properly?
- Is the child developing communication skills similar to those of children the same age?
- Is a hearing evaluation completed every 3 - 6 months to monitor their hearing and benefit from their current hearing device(s)?
- Is ongoing speech and language assessment undertaken to monitor the level of benefit from their current hearing device(s)?

Return to the audiologist if the child:

- ! Repeatedly misses or does not respond to all Ling 6 sounds with appropriately fit hearing technology. The audiologist may review for a change in hearing, update current device settings and/or consider other technology.
- ! Demonstrates increased dependency on remote microphone technology (FM systems) or visual cues for access to speech in quiet environments.
- ! Demonstrates slow auditory or language progress in comparison to typical hearing peers.
- ! Has not established care with an audiologist for regular care and monitoring.

For more information visit
www.cochlear.com

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4. Dettman SJ, Dowell RC, Choo D, Arnott W, Abrahams Y, Davis A, Dornan D, Leigh J, Constantinescu G, Cowan R, Briggs RJ. Long-term Communication Outcomes for Children Receiving Cochlear Implants Younger Than 12 Months: A Multicenter Study. *Otol Neurotol.* (2016 Feb); 37(2).
5. Semenov YR, Yeh ST, Seshamani M, Wang N-Y, Tobey EA, Eisenberg LS, Quittner AL, Frick KD, Niparko JK, CDaCI Investigative Team. Age-Dependent Cost-Utility of Pediatric Cochlear Implantation. *Ear Hear.* (2013 Feb); 34(4):402-412.
6. Sarant JZ, Harris DC, Galvin KL, Bennet LA, Canagasabay M, Busby PA. Social development in children with early cochlear implants: normative comparisons and predictive factors, including bilateral implantation. *Ear Hear.* (2018 Jul/Aug); 39(4):770-782.
7. Geers AE and Nicholas JG. Enduring advantages of earlier cochlear implantation for spoken language development. *J Speech Lang Hear Res.* (2013 Apr); 56(2).
8. Gilkerson J, Richards JA, Warren SF, Kimbrough Oller D, Russo R, Vohr B. Language Experience in the Second Year of Life and Language Outcomes in Late Childhood. *Paediatrics.* (2018 Oct); 142 (4): 1-11.
Please seek advice from your health professional about treatments for hearing loss. Outcomes may vary, and your health professional will advise you about the factors which could affect your outcome. Always read the instructions for use. Not all products are available in all countries. Please contact your local Cochlear representative for product information. Views expressed are those of the individual. Consult your health professional to determine if you are a candidate for Cochlear technology. Cochlear, Custom Sound, Hear now. And always, Nucleus, SmartSound, True Wireless and the elliptical logo are either trademarks or registered trademarks of Cochlear Limited. © Cochlear Limited 2019.

