

Ready, Steady, Go! PROFESSIONALS

Rehabilitation for Families of Babies
Waiting for Cochlear Implantation
PART 1



hearLIFE

Rehabilitation for Families of Babies Waiting for Cochlear Implantation

Dear Rehabilitation Professionals,

Research shows that early diagnosis, intervention, and active family involvement lead to best communication outcomes for children using cochlear implant(s) (CI).¹ Maternal-child interaction, bonding, and parental stress are also linked to language development in children with hearing loss.² Providing rehabilitation support to families of babies waiting for CI(s) can have a long-lasting impact.

Modern hearing technology allows children with almost all types of hearing loss to gain access to sound. However, following newborn hearing screening, families who choose cochlear implantation for their baby may face a wait until surgery day. This could be due to the baby's age or weight, funding, or a hospital waiting list. Even though the child does not have optimal access to sound during this wait, there is much information that can be shared along with strategies that can be practiced during this time to support the family to adjust to their baby's diagnosis of hearing loss and to facilitate communication development. Support given to families during this time has the power to shape a baby's brain now and into the future through parent/caregiver education, coaching, and guidance.

Ready, Steady, Go! for Rehabilitation Professionals aims to assist you in supporting families during this time. This resource includes:

- Information about working with families of babies newly diagnosed with hearing loss
- Information for guiding and promoting self-efficacy in parents/caregivers
- Strategies to guide parents/caregivers to use to facilitate communication development

- Lesson plans that outline goals and activities for intervention
- Practical activities with step-by-step guidance to use with parents/caregivers and their babies to support early communication development

Although, *Ready, Steady, Go! for Rehabilitation Professionals* is designed for families of babies who are waiting for CI(s), the information provided may also be suitable for young children who are also waiting for CI(s). For children older than 18 months of age, progress will need to be monitored very closely by setting and targeting specific goals for intervention. Children's goals will vary depending on age, stage of development, and residual hearing. Children waiting for CI(s) may need additional communication modes and educational support. Collaboration with family members, educational staff, and all professional stakeholders is required to identify a holistic and suitable support plan for every child.

We thank you for your dedication to supporting recipients of cochlear implants and their families. We hope that this resource will assist you in your work.

*Natalie Teakle
Speech Therapist, Cert. LSLS. AVT®
Rehabilitation Manager, MED-EL*

Ready

Working with Families of Babies Newly Diagnosed with Hearing Loss

Parents/caregivers may not be expecting their baby to be diagnosed with hearing loss. The diagnosis may be an upsetting and stressful experience for them.³ Following the diagnosis, parents/caregivers are required to make complex lifelong decisions for their child which may be a daunting and confusing experience.⁴ They must learn about hearing loss, hearing assessment, hearing devices, early intervention, education, and communication options. They must also access appropriate support services as well as manage multiple appointments, additional financial burden, and increased childcare needs.⁵

It is recognized that when working with babies or young children, families play a crucial role in their child's communication development; therefore, they must be part of the intervention process. Family centered care has been identified as an important feature of best practice for infant hearing health services from identification and throughout the intervention process.⁶ Family centered early intervention (FCEI) is considered a holistic approach to providing care which recognizes that every family has their own unique strengths, challenges, knowledge, experience, and preferences.⁷ FCEI promotes family well-being, engagement and active participation in services, informed choices, advocacy for the child, and self-efficacy within the parent/caregiver.⁷ [Best Practices in Family-Centered Early Intervention for Children Who Are Deaf or Hard of Hearing: An International Consensus Statement](#) was developed in 2013 to provide international guidelines for the provision of FCEI and to promote wider implementation of FCEI for children with hearing loss and their families.⁷ Intervention approaches which value partnerships between families and professionals and promote self-efficacy in parents/caregivers may lead to greater participation in early intervention and in achieving positive outcomes for children with hearing loss.⁸

The main goals for rehabilitation with families of babies waiting for CI(s) is to provide parent/caregiver education through information sharing and to guide and coach them in the use of strategies to promote early communication skills in their child. As families adjust to their child's diagnosis of hearing loss, rehabilitation professionals must also adjust the delivery of rehabilitation to most effectively support this group of parents/caregivers.

To provide effective support to families of babies waiting for CI(s), rehabilitation specialists must be flexible in their:

COMMUNICATION

The diagnosis of hearing loss may put significant pressures on families and may be a continuous source of stress.² Parents/caregivers of babies newly diagnosed with hearing loss may require more thoughtful communication as they adjust to the diagnosis. Communication between rehabilitation professionals and families may be characterised as

- communication for information sharing including information about progress, early communication development, communication modes, listening skills, communication strategies, etc. and
- affective communication including active listening, empathy, unconditional positive regard, and a non-judgemental attitude.

Active listening is characterized as giving undivided attention to the speaker, and listening with interest and without interrupting. The active listener absorbs what is being expressed, both verbally and non-verbally, offering validation of the thought processes and of the speaker.⁹ Active listening can also prove helpful for information gathering through the use of open-ended questions, summary, and clarification.¹⁰ Empathy refers to one's ability to show appreciation of another's emotions and express an awareness of their experience and feelings. Empathetic understanding requires the rehabilitation professional to reflect the parent's/caregiver's thoughts and feelings, in order to

support the parent/caregiver to gain an understanding of their own thoughts, perceptions, and emotions.¹¹ Unconditional positive regard and a non-judgemental attitude may be displayed as offering an acceptance of families through a caring and supportive attitude without judgement.

Empathy, honesty, an openness to parents'/caregivers' ideas, acceptance of parental decisions, and a willingness to listen were qualities indicated by parents/caregivers of children with hearing loss to be important that professionals exhibit.¹² Practicing affective communication will aid positive collaboration between parents/caregivers and professionals.

It is vital to remember professional scope of practice and refer families to additional services (e.g., social work, psychology, counselling) when necessary. Also provide families with information about support groups and parent/caregiver peer groups available in their area. Research has highlighted the importance of parents/caregivers making connections with other families of children with hearing loss for support in coping and problem-solving.^{5,13}

Additionally, families of babies waiting for CI(s) may also need rehabilitation professionals to be more flexible in their methods of communication, whether that be via telephone, email, or text message.

PROVISION OF INFORMATION

Parents/caregivers are given a great deal of new and complex information to understand and make decisions about soon after their baby is diagnosed with hearing loss. Understandably, this can be overwhelming for families, especially along with caring for a newborn baby. However, research into the needs of parents/caregivers of children who are CI candidates showed that they expressed a need for a wide range of medical, educational, technical, and communication information.⁵ Be prepared to provide families with

information several times, in different ways, and at different times along their hearing journey. Professionals must provide parents/caregivers with unbiased, clear, comprehensive, written, and verbal information presented free of jargon.⁴ Verbal as well as written information is helpful, so that parents/caregivers may review information and share with family members. Providing written information may support a parents'/caregivers' ability to understand and process new information which may in turn improve their participation in rehabilitation, confidence, and competence in supporting their baby.

Due to the nature of rehabilitation appointments and as rehabilitation specialists generally spend more time with families, parents/caregivers often wish to clarify information given to them by other professionals. It is important to provide up-to-date and accurate information but remain within the bounds of one's scope of practice. The coordination of care and sharing of information, assessment results, and recommendations between professionals working with the family (with consent) has been identified as a factor which is important to families.¹⁴

SCHEDULING OF APPOINTMENTS

Due to the constantly changing routines of infants as they grow, the scheduling of rehabilitation appointments may need to be flexible in terms of appointment day, time, and frequency. Parents/caregivers may have several medical appointments to attend for their baby. Offer various appointments and a transparent cancellation policy to provide appropriate and accessible support.

STRUCTURE OF APPOINTMENTS

It is vital for rehabilitation professionals to be flexible in their appointment structure to ensure sessions are beneficial for families.

Babies routines change often, and their temperament can be unpredictable. A baby may come to one appointment awake and alert but might be fussing or sleepy at an appointment at the same time the following week. It is important to remember that a productive therapy appointment can still be achieved in both cases as the focus of rehabilitation for this population is the parents/caregivers.

It is essential in all therapy appointments with children of any age to have a contingency plan for when the child's skills are higher or poorer than expected or when difficult to manage behavior arises. It is just as important to have a contingency plan for therapy appointments with families of babies waiting for CI(s) depending on the child's state and parents'/caregivers' priorities. Although the session plan may be to demonstrate and then guide and coach the parent/caregiver to use a strategy with their child with a range of toys, songs, and a routine, it may not be possible

to demonstrate and practice any or all of these activities with the baby on that day. Just as the baby may not be willing or able to participate on that day, the parent/caregiver may also arrive to the therapy session with different priorities that they wish to address.

If the parent/caregiver arrives to the session and wishes to discuss their concerns for a topic you hadn't planned for, take a moment to determine with the family how to spend the session time so it will be most helpful to them on that particular day.

If the baby doesn't participate, guide and coach the parent/caregiver to use a particular strategy through discussion or role play, provide information that is relevant for the family at that moment, ask the family about information they would like, or ask about questions or concerns they have with regard to the baby's communication skills.



Working with Babies

Since the introduction of newborn hearing screening, rehabilitation professionals have begun to work with much younger children. Working with babies under the age of 18 months requires additional knowledge, skills, and resources than what is required while working with older children with hearing loss and their families. The environment where services will be provided will vary from in the clinic, online, or in the home environment.

MILESTONES IN TYPICAL DEVELOPMENT AND COMMUNICATION

Rehabilitation professionals require knowledge of the typical developmental milestones across all domains for infants in order to monitor progress, set appropriate goals for intervention, and answer parents/caregivers queries. Milestones for typical childhood development across domains of communication (audition, receptive language, expressive language, speech articulation, play, cognition, pragmatics, and literacy) are outlined in *A Child's Journey Developmental Milestones (Birth – 6 Years)*.²¹

HEARING LOSS AND COMMUNICATION DEVELOPMENT

Rehabilitation professionals must also understand the concepts of cortical reorganisation, the critical period for language development, and how hearing loss impacts communication development in infants to provide accurate information and timely guidance to parents/caregivers.

PARENT/CAREGIVER-CHILD INTERACTION

An understanding of the characteristics of parent/caregiver-child interaction and how this inherently encourages language development is important to ensure that rehabilitation professionals are encouraging and reinforcing natural parent-child interaction behaviours through praise, commenting, and explanation to parents/caregivers.

AUDIOLOGICAL TESTING AND MANAGEMENT

Rehabilitation professionals must understand audiological management for infants following newborn hearing screening, including tests used, frequency of testing, provision of hearing aid(s) (HA), and professionals involved. This will vary depending on the workplace and national procedures.

INFANT ROUTINES

A basic understanding of infant routines at different ages, such as time spent sleeping and feeding, is helpful to ensure recommendations given to families are realistic, relevant, and appropriate. Talk to families about their routines to allow provision of individualized and relevant guidance, support, and recommendations.

SEATING

Alternative seating options will allow movement during rehabilitation sessions and flexibility as the child grows. Options may include an adult-sized table and chairs to use with a highchair, a play mat on the floor, or a bouncer.

ADDITIONAL FACILITIES

Also consider additional spaces parents/caregivers require for caring for infants, such as a space for nursing and changing facilities that are welcoming, functioning, and maintained.

TOYS

Toys and books appropriate for 0 to 18-month-old children are required in the clinic to demonstrate and practice strategies with parents/caregivers. Simple toys that are common in households are most suitable. Parents/Caregivers who are attending sessions at a clinic are then more easily able to carry over strategies learned in sessions with similar toys at home. Families should not be required or asked to purchase specific toys. Toys which may be helpful to have in the clinic may include but are not limited to:

- Brightly colored toy animals and vehicles including a car and bus in which people figurines or toy animals can sit in
- Small people figurines to fit in vehicles
- Plastic doll
- Doll accessories (e.g., comb, hat, shoes)
- Toy tea set
- Small bed or empty shoe box, pillow, and blanket for doll
- Small containers for hiding and bathing toys
- Plastic bath toys (e.g., ducks, fish, boats)
- Stacking rings
- Blocks
- Balls
- Toys that spin and shake (e.g., rattle, rainmaker, windmill)
- Toy car ramp
- Large inset puzzles
- Cause and effect toys (e.g., hammer and ball toys, shape sorter)
- Toys to push and pull (e.g., balls and a ramp, toys on a string)

Encourage families who are attending sessions at a clinic to bring a toy or book from home to allow provision of clear and relevant guidance on how to use them in the home environment. Similarly, rehabilitation activities based on a family's daily routines, such as getting dressed and changing diapers, allows for pertinent practice and guidance during rehabilitation sessions.

Any type of book can be read to babies but durable board books and books with bright pictures or touch and feel pages are most suitable.

Just as with older children, repetition and practice of the same activities and strategies is helpful for babies and parents/caregivers to consolidate skills and understanding.

CLEANING PRODUCTS

Additional cleaning products to clean surfaces and toys may be required.

Steady

Parent/Caregiver Coaching and Promoting Parent/Caregiver Self-Efficacy

Parents/caregivers are the ones who spend the most time with their babies. They have more opportunities to promote communication development than direct intervention with rehabilitation professionals, and naturally they are their baby's best teacher. Positive parent/caregiver-child interaction is important for both the child and the parent/caregiver.¹³ Parent/caregiver coaching and promoting self-efficacy is a vital part of intervention for families of babies waiting for CI(s).⁵ Researchers have attributed the correlation found between parent/caregiver-child communication difficulties and parents'/caregivers' lower levels of satisfaction from professionals to the professionals' lack of parent coaching on how to develop better communication strategies.¹⁵ Parent/caregiver coaching aims to support them to become competent and confident in their skills and abilities to communicate with their child, act as an advocate for their child, and to support their child's communication development.

It is the role of the rehabilitation professional to:

- Understand that families play an essential role in achieving positive outcomes for CI recipients¹
- Recognize that intervention plans must be adapted to best meet the needs of each family in order to achieve positive outcomes
- Strengthen parents'/caregivers' confidence and self-efficacy

- Provide parents/caregivers with information, knowledge, strategies, and practice related to their child's hearing loss and communication skills to be effective communicators with their children and to support their communication development

Adults learn differently than children. To provide successful learning opportunities and promote self-efficacy, parents/caregivers can benefit from:

- Active involvement in the learning process including deciding on what will be learnt and how
- Relevant information and practice; parents/caregivers must know why they are learning certain information and skills
- Practice driven activities allowing parents/caregivers to practise new skills and receive feedback to promote their competence and confidence
- Real life experience in meaningful situations to practise and utilize their newly learned knowledge and skills



Self-efficacy refers to the belief in one's own ability to perform a task successfully.¹⁶ A person who is self-efficacious persists in a given task believing it can be achieved.¹⁷ Parents/caregivers of babies waiting for CI(s) are facing a new challenge in raising a child with a hearing loss. Parent/caregiver coaching has a positive effect on parent's/caregiver's coping ability and on self-confidence in the parental role⁵. Rehabilitation specialists may utilize coaching to develop parent/caregiver knowledge and skills and to promote self-efficacy to support them in this new challenge⁵. This may be achieved through:

- Collaborative discussion, planning, problem-solving, decision-making, and reflection with parents/caregivers about their child's intervention program¹⁸
- Session objectives and activities being decided upon collaboratively with parents/caregivers
- Encouraging parents/caregivers to share information, opinions, needs, and problems pertaining to their child
- Acknowledging as important and meaningful, parents'/caregivers' needs, beliefs, problems, suggestions, and ideas
- Providing relevant information to increase parents'/caregivers' knowledge

- Providing numerous and varied opportunities for parents/caregivers to practice facilitative strategies to support their child's communication development and to promote their own competence and confidence⁵
- The rehabilitation professional highlighting positive parents'/caregivers' behaviors, knowledge, and skills, and how these benefit their child to strengthen parents'/caregivers' confidence¹⁹
- Providing specific, constructive feedback to parents/caregivers to develop their skills further
- Allowing parents/caregivers to be the main facilitator of their child's communication development by promoting parent/caregiver-child interaction rather than therapist-child interaction
- Supporting the parents/caregivers to see themselves as a key part of the team and an advocate for their child through collaborative partnership
- Supporting carryover and practice of learned skills in meaningful situations in the home and in daily routines

For further information and guidance on parent/caregiver coaching refer to the parent coaching strategies developed by Caraway et al. (2008) and to works by Rush and Sheldon (2011).

Go!

Strategies to Guide Parents/Caregivers to Use while Talking and Playing with Their Baby

The following strategies are used to support the development of early communication, language, listening, speech, literacy, and social skills of all children with hearing loss. Although babies who are waiting for CI(s) will not have optimal access to sound, the family and baby will benefit from guidance and coaching on how to incorporate these strategies into their daily lives. Parents/caregivers can begin to learn about and practice these strategies to prepare themselves and their baby to be ready to benefit from the CI(s) from the moment of activation. These strategies can be used while parents/caregivers are talking to, caring for, and playing with their baby every day. The strategies listed can all be used despite what language(s) is spoken in the home.

EYES OPEN, EARS ON

If fit with HA(s), the baby's HA(s) are on and working all the hours the baby is awake. Although the baby does not have optimal access to sound with their HA(s), encourage parents/caregivers to put them on and keep them in as much as possible. This is a good routine to get into in preparation for CI use. The baby may gain some benefit which will stimulate their auditory nerve and auditory brain in preparation for their CI(s). Acknowledge that keeping HA(s) in babies' ears can be extremely frustrating for parents/caregivers. Let parents/caregivers know this can be difficult and there are tricks to support them to keep the HA(s) in for longer. Suggest audiological/medical tape, retention lines, and bonnets. Discuss further options with the family and their audiologist.

Performing a functional listening check (Ling Six Sound Test) may or may not be appropriate depending on the child's hearing loss pre-implant. If the child does not respond to any of the Ling sounds, it may be discouraging to the family to continue to repeat this test at every session. A discussion with the family about whether they have observed any responses to sound since the last session may be more appropriate. If the baby has shown responses to Ling sounds, continue to complete the Ling Sound Test at every session to ensure HA(s) are working.

STAY CLOSE

The parents/caregivers make a conscious effort to move close to the child to ensure the auditory signal is clear. Staying close is something that parents/caregivers are likely already doing while they feed, change, and care for their baby. Praise them and highlight the importance of this. By staying close, parents/caregivers are providing their baby the best auditory signal they can. The child may receive some auditory stimulus from their HA(s), will gain tactile information while being held, and will have access to facial expressions.

As babies grow and begin to crawl and move around, it becomes more difficult for parents/caregivers to stay close. Encourage them to try to be face-to-face with their baby, stay close, and be mindful to have their face in light (rather than shadow) while talking and playing with their child to provide the best auditory signal and visual cues. Move down to their level as they play. The optimal distance is between 30 and 50 cm from their HA(s). Moving closer to the baby provides a stronger and clearer auditory signal. Increasing the volume of one's voice deteriorates the auditory information. It is better to move closer than to increase the volume of your voice.

TALK, TALK, TALK

Abundant language models are provided for the child to learn from and eventually copy. Parents/Caregivers make a conscious effort to speak about what they are doing, seeing, hearing, and thinking (self-talk) and to speak about what the child is looking at, doing, and thinking about (parallel talk). Remind parents/caregivers that talking with their baby has significant benefits even if they can't hear well yet. The baby may pick up cues from the rhythm and pitch of speech; both important for later language and literacy development. The child will require the family to TALK, TALK, TALK from the moment of their CI(s) activation, so parents/caregivers will benefit from learning to use this strategy now.

AUDITORY HOOKS

Exciting words such as, *Look!, Wow!, Uh-oh!* are used with emphasis to capture the child's auditory attention. The words stimulate the auditory area of the brain to be ready to listen to what is said next. Although the child may not respond to AUDITORY HOOKS yet, they may respond to the facial expressions that go with them. Encourage parents/caregivers to practise this strategy in preparation for their baby receiving their CI(s).

THE SAME THINKING PLACE

The parent/caregiver makes a conscious effort to identify what the child is thinking about or feeling and provides comments to put those thoughts into words. An example is if the child yawns, the parent/caregiver could comment, *Ohhh, that was a big yawn! Are you tired? Yes, you might be tired. Yawn!*

ACOUSTIC HIGHLIGHTING

A number of techniques are used by the parent/caregiver to make spoken language more interesting to listen to. These techniques include using child-directed speech or parentese which has more pitch variation (sing-song voice), a slightly slower rate, deliberate use of pauses, and emphasis on important words by putting them at the end of a phrase or saying them a different way. Babies waiting for CI(s) may show responses to intonation, duration, and loudness cues in spoken language.

LISTENING FIRST

Listening to spoken words comes before the child is given other information through vision or touch to ensure the auditory area of the brain receives stimulation from sounds and voice. This strategy facilitates the child's ability to attend to and eventually understand spoken language. An example is hiding a toy under a blanket and talking about it before showing it to the child. This strategy is one to be aware of, but as the baby does not have optimal access to sound, encourage, coach, and guide parents/caregivers to use the other strategies during this period.

THE LISTENING ENVIRONMENT (SIGNAL-TO-NOISE RATIO)

Elements in the environment are deliberately and conscientiously manipulated to ensure the background noise is significantly softer than the parents'/caregivers' voice. For example, windows are closed to reduce the impact of traffic noise, and TVs and music are turned off. In optimal listening conditions, the parents'/caregivers' voice will be 15 to 25 dB louder than background noise.

WAIT, WAIT & WAIT SOME MORE

The parents/caregivers provide abundant language models (TALK, TALK, TALK) and then wait with expectation to encourage the child to have a turn in the conversation. A baby may take that turn by making a noise, smiling, or using a gesture (e.g., pointing or using eye gaze). Expectation that the child makes a communication attempt is set through waiting in silence, leaning towards the child, smiling, and nodding.

MY VOICE MATTERS!

Every small attempt by the child to produce a sound or make a communication attempt through eye gaze, gesture, or facial expression is acknowledged and valued. This acknowledgment helps children understand the importance of back and forth communication (once the child has their CI[s], by using their voice) and provides motivation to practise talking more. Babies diagnosed with hearing loss who have poor access to sound will respond less than their typically hearing peers. This can lead to parents/caregivers talking to their babies less. Highlighting the baby's small communication attempts to parents/caregivers is extremely important to keep them talking and interacting with their child while waiting for CI(s).

MUSIC, MUSIC, MUSIC

A conscious effort is made to expose the child to music and singing, particularly in the form of simple children's songs and rhymes. Singing is a natural form of ACOUSTIC HIGHLIGHTING stimulating multiple areas of the brain. The repetition in children's songs makes new vocabulary and sentence structures easier to learn. The acoustic information and rhythm of singing and songs may be accessible to a baby waiting for CI(s). Encourage parents/caregivers to add movement such as swaying, rocking, bouncing, or hand motions as they sing to their infants.

BOOKS, BOOKS, BOOKS

Reading books provides parents/caregivers another activity in which they can sit close to their baby and TALK, TALK, TALK. Reading books together is a good practice to get into early. Later, shared book reading can be used to extend the child's vocabulary and sentence structures, general knowledge, and understanding of the thoughts, feelings, and beliefs of others, as well as to develop literacy skills. Book sharing on a regular basis is encouraged.



Lesson Plan

The lesson plan includes the following symbols:



Indicates parent/caregiver education and goals



Indicates listening and receptive language goals



Indicates spoken language and speech goals



Indicates cognitive, play, pragmatic, and literacy goals

Lessons with families of babies waiting for CI(s) focus on guiding and coaching the parents/caregivers to use strategies in meaningful interactions, play, and daily routines. Parent/Caregiver goals are the central focus. Goals for the child's skills are secondary and are listed in the lesson plan as a guide. Add individualized goals specific to the child depending on their age and stage of development, as well as their residual hearing. *A Child's Journey Developmental Milestones (Birth – 6 Years)*²¹ may be used as a guide for goal selection.

The activities outlined in the lesson plan focus on parent/caregiver education and guidance for meaningful daily interaction, so may be used in both face-to-face and telepractice sessions with minimal adaptation. Further information for telepractice sessions can be found on page 20.

Children under the age of 18 months have short attention spans. Prepare activities which allow parents/caregivers repetition for practice of the same strategies with their child. To keep their child interested have multiple toys or activities available (e.g., if practising the use of suprasegments with the phrase *around and around*, have several different toys that spin and present these to the child one at a time). Remember, it is the parents'/caregivers' interactions that will hold their child's attention. With appropriate guidance and positive feedback, it is also parents'/caregivers' interactions with their child that will foster self-efficacy and promote further positive interaction.

Lesson Plan

Date:

Name:

Age:

ACTIVITY	GOALS						
Ling Six Sounds (complete if appropriate)	left	ah	oo	ee	sh	s	m
	right	ah	oo	ee	sh	s	m
	Additional cues						

ACTIVITY	GOALS			
				
Greeting and Update	Parent shares news, progress, practice, current observations, and concerns			
Ling Six Sounds (complete if appropriate) /Discussion About Baby's Responses to Sound	Parent performs the Ling Six Sound Test or observes baby closely for responses* OR parent reports any responses to sound they have observed since the last session	Detects sounds if using HA(s)*		
Spinning Toys	Parent practices TALK, TALK, TALK and KEEP YOUR VOICE INTERESTING	Anticipates action in preparation for toy to spin	Vocalizes, looks between parent and object, or reaches to request more spinning	Maintains brief eye contact during interaction
Vehicle Toys	Parent practices TALK, TALK, TALK and KEEP YOUR VOICE INTERESTING			Plays two to three minutes with one toy; rolls car back and forth
Daily Routine: Getting Baby Dressed	Parent practices TALK, TALK, TALK during a daily routine			Extends arm or leg to help when being dressed
Songs	Parent understands the benefits of singing		Imitates simple actions that go along with the song	
Reflection, Feedback, and Carry Over	Parent gives an example of another activity or daily routine they can use the strategies practiced			

*Goals dependent on child's aided hearing thresholds.

For brevity, *parent* is used in this table to refer to the child's parent, caregiver, or significant family member.

We recommend a discussion with the parents/caregivers at the start and end of the session, but all other activities can be completed in any order or substituted with activities individualized for the family.

Step-By-Step Activities to do with Parents/ Caregivers and Their Babies to Support Early Communication Development

Greeting and Update

Allocate time to get an update from parents/caregivers about how they are doing since your last session. Use open-ended questions to allow parents/caregivers to talk about what is most important to them. For example, *Tell me about your week.* or *Do you have questions since our last session?* It is beneficial for families to have a time to raise questions or concerns. This is especially important for parents/caregivers of babies newly diagnosed with hearing loss. Encouraging them to share news, observations, and concerns, will allow activities, strategies, and information to be identified to include during the session which will be most helpful and relevant. It enables parents/caregivers to take ownership of what is covered in sessions and allows them to see themselves as a valued part of the team.

Also discuss:

- The child's current skills (this could be in any domain of child development) and parents'/caregivers' observations of the child's skills since your last session.
- Review strategies practiced with the family at the last session and how they have practiced these since. If they were not able to use the strategies/activities in daily routines, discuss the barriers for this and ways to either incorporate those strategies differently or discuss alternative strategies/activities.
- Use of the child's HA(s) (if fit) and whether parents/caregivers need support with HA retention.

Ling Six Sounds/Discussion About Baby's Responses to Sound

MATERIALS

Stacking rings or a quiet toy to visually distract the child (optional)

INSTRUCTIONS

1. Complete the Ling Six Sound Test if the child uses HA(s) and has been observed to respond to sound.
2. Parent/Caregiver presents the sounds or observes baby closely for responses while the therapist presents the sounds.
3. When performing the Ling Six Sound Test, sounds may need to be presented from one meters distance, at a loud conversational volume, or with additional suprasegmental cues to gain a response from the child.
4. Reflect on observations of the child's responses with the parent/caregiver including the distance and use of an increased volume or additional suprasegmental cues. There is a row provided in the lesson plan to make note of the use of additional cues.
 - a. If an increased volume or suprasegmental cues were used, highlight to the parent/caregiver that the child was able to respond to sound with additional cues; however, this is not representative of conversational speech. It provides positive information that the child is able to detect loud sounds with their HA(s). The HA(s) are stimulating the child's auditory brain while they wait for CI(s). The expectation is that the CI(s) will provide information of all the sounds of speech at a conversational volume.
5. Report any new or different responses to the child's audiologist including distance, volume, and the use of additional suprasegmental cues.

If the child has been diagnosed with a significant hearing loss and has not shown responses in the past, it may be upsetting for the family to complete the Ling Six Sounds Test at every appointment. Instead:

- a. Ask the parent/caregiver whether they have observed any responses to sound since the last session
- b. Check HA(s) function

Note: For more information about how to complete the Ling Six Sound Test, refer to the [MED-EL Blog](#).

Spinning Toys

MATERIALS

- Three to four toys or objects that spin, such as a toy helicopter with moving propeller, a spinning top, or a toy vehicle with wheels. Anything bright that can be made to spin and stop is suitable.
- Windmill (optional)

INSTRUCTIONS

1. Guide the parent/caregiver to **STAY CLOSE**. Suggest the parent/caregiver position their baby on their lap, lying on a mat in front of them, or in a bouncer/bassinet. This allows their baby to receive the best possible auditory signal and to see their facial expressions.
2. Explain the strategy **TALK, TALK, TALK**, and demonstrate to the parent/caregiver how to use this strategy with a toy. Label the toy and talk about the colors and textures. Talk about what you will do to make the toy move. Use repetition and put emphasis on the play sound *around and around*. *Look, here's the windmill! A big, red windmill. It will go around and around! Let's spin it around and around. Ready?*
3. Hold the toy up for baby to see, then spin the toy. As the toy is spinning, use the play sound *around and around* again to match the time the toy is spinning.
4. Let the toy stop and highlight this action by talking about it. *Stop! The windmill stopped*. Ensure *stop* is of short duration to contrast with *around and around*. The baby may be able to access some patterns of spoken language (e.g., differences in long versus short sounds or words, changes in stress or intonation) with their HA(s).
5. Explain the strategy **ACOUSTIC HIGHLIGHTING**. Explain how you used this when you spoke.
6. Hand the toy over to the parent/caregiver for them to practise **TALK, TALK, TALK** and **ACOUSTIC HIGHLIGHTING**.
7. Encourage the parent/caregiver to pause after they have stopped the toy, look expectantly at the baby, wait, and see whether they will make a communication attempt (e.g., gesture, noise, eye gaze) to request more spinning. You may have to point out a subtle communication attempt that the baby made to the parent/caregiver.
8. Praise the parent/caregiver when they use a strategy well or demonstrate behaviors that supports the baby's communication. Guide the parent/caregiver gently to adapt and improve their use of the strategies you have demonstrated.
9. Add a song to this activity. Ask the parent/caregiver if they know a song to go with this activity, make up a song, or see below for a song suggestion.
10. Highlight for the parent/caregiver any communication attempts you observe from the baby.
11. Depending on the baby's age and stage of development, you may allow them to hold and explore the toy with supervision.
12. Repeat the same practice with the other spinning toys.

If using the Windmill Template:

MATERIALS

- Printed Windmill Template (page 21-22)
- Thick card or cardboard box
- Push split pin
- Scissors
- Tape or glue
- Cardboard tube (e.g., from kitchen paper towel) (optional)

INSTRUCTIONS

1. Print the windmill template onto thick card or use this as a template to cut the shapes from a cardboard box.
2. Cut out each of the pieces.
3. Roll the large brick patterned rectangle to form a tube and secure with tape. Alternatively, glue the brick patterned rectangle onto the cardboard tube.
4. Make a small hole in the middle of each of the wooden rectangles. Place one over the other to form a cross and push the split pin through.
5. Make a hole at the top of the tube, push the split pin and cross on, and then fasten loosely at the back.

Vehicle Toys

MATERIALS

Any vehicle toys

INSTRUCTIONS

1. Guide parent/caregiver to STAY CLOSE.
2. Depending on the baby's age and stage of development, allow the baby to handle and explore the vehicle with supervision.
3. Demonstrate to the parent/caregiver how to use TALK, TALK, TALK with the vehicle. Talk about what you are doing, seeing, or thinking. Speak about what the baby is looking at, interested in, doing, or thinking.
4. Add fun action words and play sounds such as *brmm brmm* (car), *choo choo* (train), *chug chug* (truck), *ahhhhhh* (airplane).
5. Move the vehicle in time with the play sound. For example, if using an airplane, fly it up and down while saying *ahhhhhh* with a rising and falling tone. Move the car in time with the sound *brmm brmm*.
6. Encourage the parent/caregiver to take a turn to TALK, TALK, TALK and use ACOUSTIC HIGHLIGHTING.
7. Add a nursery rhyme or a song about the vehicle such as "The Wheels on the Bus" or make one up about the vehicle being played with.
8. Encourage the parent/caregiver to take the toy and roll/move it back and forth and then to the baby. Encourage the parent/caregiver to keep talking. *Let's roll the car. Roll, roll, roll. Roll the car to me!*
9. Praise the parent/caregiver immediately when they use a strategy well. Guide the parent/caregiver gently to adapt and improve their use of the strategies you have demonstrated.
10. Highlight for the parent/caregiver any communication attempts you observe from the baby. Developing their awareness of their child's communication attempts aims to increase their responsiveness to their child.



Daily Routine: Getting Baby Dressed

Encourage the family to bring a routine or toy to the session that they would like to talk about and gain ideas for how to facilitate communication and interaction. This will allow another opportunity to give the parent/caregiver praise in how they are interacting with their child to build their self-efficacy. It will also allow provision of meaningful and relevant guidance to the family about a routine that is important to them. Here is an example of coaching a parent/caregiver through the daily routine of getting baby dressed.

MATERIALS

A doll with clothes (optional)

INSTRUCTIONS

1. Ask the parent/caregiver to share how they would typically get their baby dressed.
2. A doll with clothes may be used by the parent/caregiver to demonstrate their routine or to demonstrate strategies to the parent/caregiver.
3. Explain the strategy of EYES OPEN, EARS ON if the baby is using HA(s). Encourage the parent/caregiver to start by putting the baby's HA(s) on. The baby may gain some benefit from the HA(s) which will stimulate their auditory nerve and their auditory brain in preparation for their CI(s). By doing this first, the baby may receive some auditory information as the parent/caregiver talks and sings to them while being dressed.
4. Remind the parent/caregiver of the benefits of STAYING CLOSE. This is easy to do while they are changing their baby. Praise the parent/caregiver for providing their child the best auditory signal they can. Praising the parent/caregiver aims to build their self-efficacy.
5. Remind the parent/caregiver of the strategy TALK, TALK, TALK. Encourage the parent/caregiver to use this strategy while dressing or changing their baby.
6. Brainstorm together a nursery rhyme or song to sing while they are dressing or changing their baby. "This is the Way We" ... (e.g., change our clothes) song is always an easy song to sing while carrying out an action.



Songs

MATERIALS

None required

INSTRUCTIONS

1. Explain the importance and benefits of singing to the parent/caregiver.
2. Ask the parent/caregiver if they have a favorite song they sing with their baby.
3. Sing the song they suggested or take the opportunity to teach the parent/caregiver a new song.
4. Demonstrate to the parent/caregiver throughout the lesson how to add songs (known or made up) to whatever they are doing with their baby. Sing while putting the baby into the highchair; sing about packing away the toys. Sing about a picture, toy, or object the baby is interested in.
5. Search online for songs to match toys and activities, change the words to traditional songs, or make up songs!

Here is a song to go with a windmill toy. This song is great because it is fun and repetitive. Add emphasis and slow down the singing rate while singing the key words *round, round, round, round, round*. Change the words to fit the toy being played with (e.g., *The wind is blowing, and the wheel is going*). Or make up a new song!

The "Windmill Song" from [TuTiTu Songs for Kids](#).

*The wind is blowing, and the windmill is going
round, round, round, round, round.*

*The wind is blowing, and the windmill is going
round, round, round, round, round.*

*Up the hill, standing still,
and the wind comes blowing and blowing.*

*Up the hill, standing still,
and the wind comes blowing and blowing.*



Reflection, Feedback, and Carry Over

MATERIALS

Pen and paper or notebook (optional)

INSTRUCTIONS

REFLECTION AND FEEDBACK

1. Remind the parent/caregiver of the strategies discussed or ask them to recall the strategies discussed in the session.
2. Discuss how the strategies practiced support the baby's communication development now or how they will once the baby receives their CI(s).
3. Praise the parent's/caregiver's skills and reflect together on the baby's skills which were observed during the session.

CARRY OVER

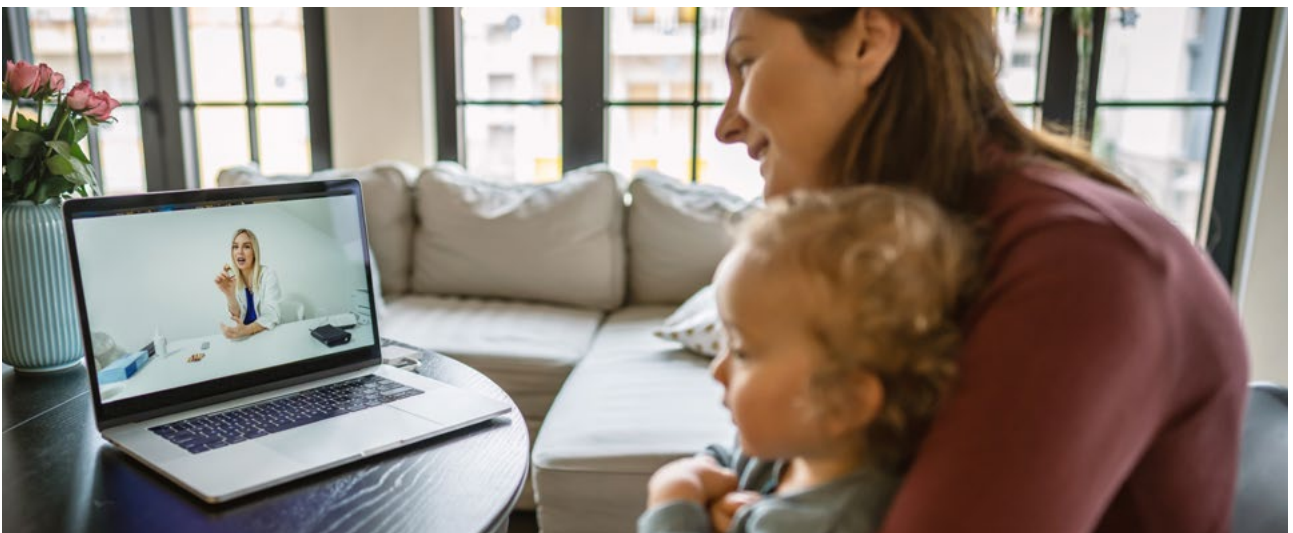
1. Encourage the parent/caregiver to offer examples (or suggest examples) of activities or daily routines they can use the strategies practiced; STAY CLOSE, TALK, TALK, TALK, and ACOUSTIC HIGHLIGHTING.
2. Write the activities or daily routines down or encourage the parent/caregiver to write them down to remind them to practice these strategies until your next session. Encourage the parent/caregiver to share them with their extended family.
3. Allow the parent/caregiver time to discuss any other topics or ask questions.

Instructions For A Telepractice Session

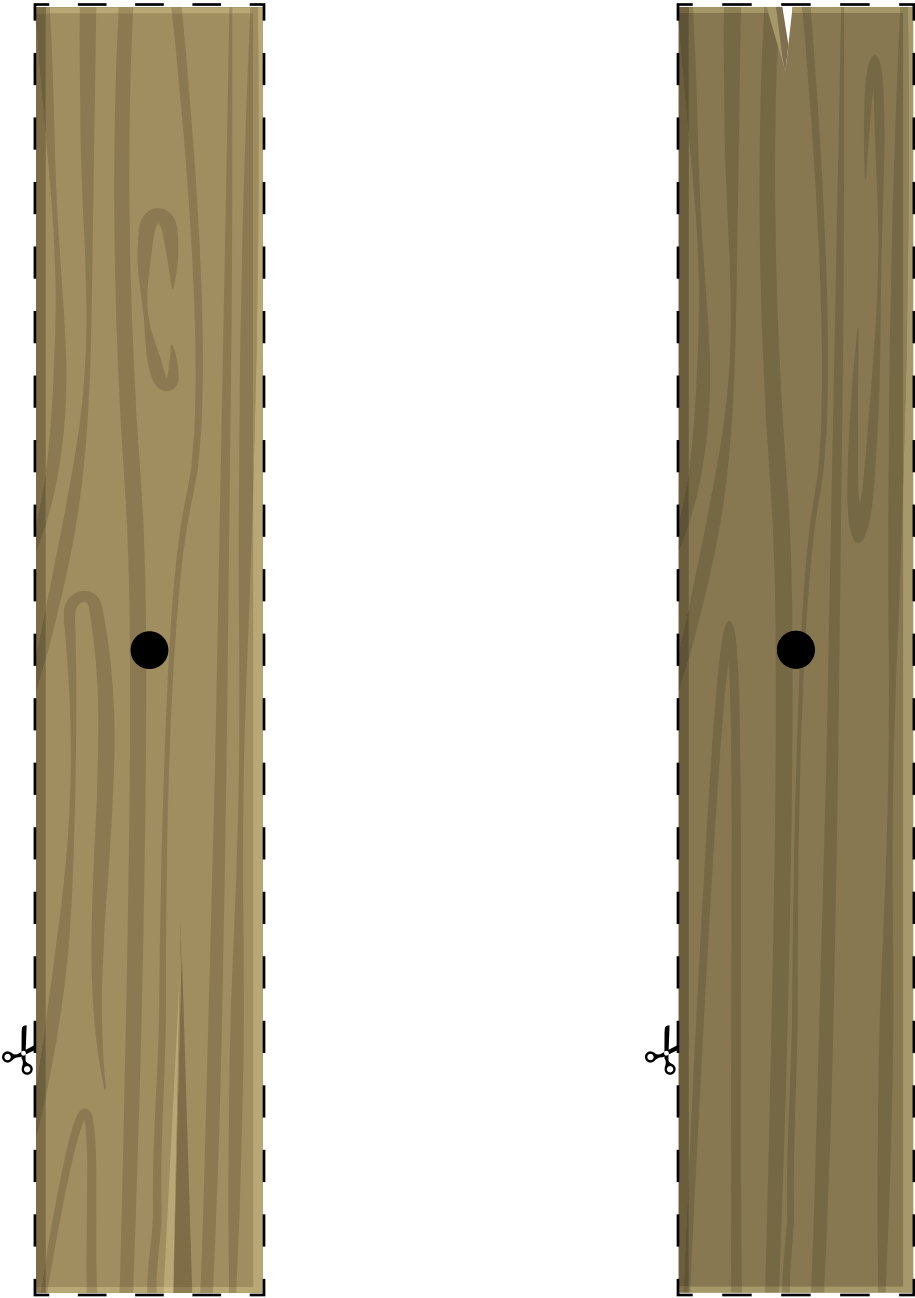
Rehabilitation sessions with families of babies waiting for CI(s) focus on parent/caregiver guidance and coaching of strategies to promote communication. Rehabilitation professionals can continue to focus their attention during telepractice on coaching the parent/caregiver rather than engaging with the baby. As a result, the same lesson plan and instructions for all activities can be used in a lesson via telepractice with minimal adaptation. See the [MED-EL Remote Lesson Kits](#) for more information and technical guidance for how to prepare telepractice lessons. The *MED-EL Remote Lesson Kits* also include digital resources and hands-on guides for remote rehabilitation with children using hearing technology.

Here are some other tips for telepractice sessions with babies.

- A telepractice session with a baby doesn't have to take place at a table or desk. Encourage the parent/caregiver to set up the device wherever works best for them and the baby and where you can still see what is happening. This might be on a play mat on the floor.
- Provide the family a list of items required for the session beforehand and explain any preparation they may need to do.
- Encourage the parent/caregiver to bring a toy or routine to the session that they would like to show or gain ideas on how to use with their baby.



Windmill Template



GLUE HERE



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MED-EL Offices Worldwide

AMERICAS

Argentina

medel@medel.com.ar

Canada

officecanada@medel.com

Colombia

office-colombia@medel.com

Mexico

office-mexico@medel.com

United States

implants@medelus.com

ASIA PACIFIC

Australia

office@medel.com.au

China

office@medel.net.cn

Hong Kong

office@hk.medel.com

India

implants@medel.in

Indonesia

office@id.medel.com

Japan

office-japan@medel.com

Malaysia

office@my.medel.com

Philippines

office@ph.medel.com

Singapore

office@sg.medel.com

South Korea

office@kr.medel.com

Thailand

office@th.medel.com

Vietnam

office@vn.medel.com

EMEA

Austria

office@at.medel.com

Belgium

office@be.medel.com

Finland

office@fi.medel.com

France

office@fr.medel.com

Germany

office@medel.de

Italy

ufficio.italia@medel.com

Portugal

office@pt.medel.com

Spain

office@es.medel.com

South Africa

customerserviceZA@medel.com

United Arab Emirates

office@ae.medel.com

United Kingdom

customerservices@medel.co.uk

MED-EL Medical Electronics
Fürstenweg 77a | 6020 Innsbruck, Austria | office@medel.com

medel.com

