

## Programming & Follow-Up for Your Child's Cochlear Implant

“Mapping” or programming the  
speech processor

The programming of the speech processor by an audiologist begins 1-4 weeks after surgery. The speech processor is a small computer worn on the ear. “Mapping” describes how the speech processor of a cochlear implant is programmed.

Your child will wear the speech processor, connected to a computer, for mapping. The audiologist will find the softest and loudest sounds that can be heard on each electrode. The responses to the softest, as well as the loudest levels will be stored in the speech processor as a “map” or “program.”

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“Turning on” the device

On day 1, your child's cochlear implant will be turned on for the first time. The audiologist will obtain information many ways:

- Impedances – the audiologist will ensure each electrode is working properly.
- NRT/NRI – objective measurements that serve as a guide to the program.
- Behavioral measurements – as sound is presented through the computer, the audiologist will be watching for a reaction from your child such as:
  - Head turn or looking up
  - Pointing to ear
  - Crying
  - Looking around

The purpose of the initial settings is to introduce your child to sound. We ask that only parents to be present for this first visit. This experience will be very new for your child and at first, they may not like this and may need extra attention and hugs from parents.

During the 2<sup>nd</sup> visit, the audiologist will begin to fine tune the maps. We will use the child's responses during mapping and sound booth testing as well as all our observations to do this. Family members, caregivers, or professionals working with your child are welcome to attend. Creating the best map for a child's cochlear implant will take many visits.

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#### Success with a cochlear implant

If listening and spoken language is the goal for your child, for them to be able to make progress with listening and spoken language skills as fast as possible:

- Your child must wear their cochlear implant during all waking hours.
  - The speech processor should always be working.
  - Spoken language should always be used at home and in school. If sign language is used, it is critical that spoken language is used at the same time.
  - You and your child must attend the programming and speech appointments.
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#### Why is speech therapy important?

Developing listening and spoken language takes time and family involvement. Speech therapy will help your child learn to use speech information. Many of the activities can be taught through fun, play-based activities that you will also use at home. We advise that children participate in therapy until they develop age-level listening and spoken language. Therapy can be obtained at Rady Children's Hospital, your child's school, or other local providers.

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#### Follow-up Appointments

Your child will need follow-up appointments throughout their life.

##### Mapping Appointments

##### Year 1

- 1 to 4 weeks after surgery
- 1-week later
- 1-month later
- 3 months later
- 6 months later
- 1-year later

Years 2-3

- Every 6-12 months

Years 4+

- Every 12 months

Speech Therapy

- Weekly for 2-3 years (or until they develop age-level listening and spoken language skills)

Medical/ENT Evaluation

- Yearly
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What to do after activation

Perform a **daily listening check** to check that the cochlear implant is working properly. We will provide you with instructions to show you how to do this. Use the Ling 6 sounds to complete the test (m, oo, ah, ee, sh, s).

**Keep a Listening Journal:** Record the number of hours your child is wearing their implant each day and any new things you notice.

**Tips for the first few months:**

- Imitate your child's vocalizations
- Mimic their speech patterns
- Talk to your child as if his/her vocalizations really mean something
- Select common sounds in your home you want your baby to learn like the dog barking or someone knocking on the door
- Sing songs and read books regularly

At the end of each day, **check under the magnet** for any pinkness or redness on the skin. If you see anything abnormal, please contact the clinic at 858-966-8992.