



Cochlear Implant Process: Explanation of Evaluation Steps

Phase I

1. **Cochlear Implant Evaluation** – This visit will involve extensive soundbooth testing with and without hearing aids. The results of these tests combined with your hearing loss history is used by the audiologist to determine if a cochlear implant is likely to be helpful to you or your child. If so, the audiologist will counsel and educate you about cochlear implants so that you understand all that is involved before you decide to proceed with the rest of the cochlear implant process. (2 hours at The Hearing Center, A107)
2. **Otologic Medical Evaluation** – The physician at Dallas Ear Institute will take a full medical history, perform a physical exam, and review the hearing tests performed in step 1. If he agrees that a cochlear implant is the best option, the next phase of the evaluations will be scheduled. (45 minutes at Dallas Ear Institute, A103)

Phase II

1. **MRI or CT Scan** – It is required that all patients have a scan to evaluate the inner ear anatomy and screen for any brain conditions prior to cochlear implant surgery. Children usually require sedation or anesthesia for the scan, therefore, it is performed in Medical City's Radiology Department. Adults and older children have their scan performed in a nearby outpatient facility. (45 minutes)
2. **Genetics Evaluation (CHILDREN ONLY)** – In 80% of children born with hearing loss, the hearing loss is because of a genetic cause. Determining the exact gene that caused the hearing loss is helpful to the physician in understanding the condition. It also helps the parents understand how future children can be affected. Genetic blood testing for hearing loss is now very practical and cost effective. The benefits of testing your child will be discussed. In some cases it may be recommended that your child see a doctor who specializes in genetics. The geneticist will take a detailed family history, perform a physical exam, and possibly obtain a blood sample for genetic testing and later counsel the parents regarding the results. (1 hour)
3. **Auditory-Verbal Evaluation** – For ADULTS, this assesses (A) the effects of hearing loss in the patient's listening and speaking skills at home, work, educational and social settings, (B) the possible benefits of a cochlear implant, and (C) the need for hearing therapy or speech therapy after the cochlear implant is activated.

For CHILDREN AND ADOLESCENTS, this assesses the patient's potential for learning to (A) hear and comprehend spoken language with a cochlear implant, and (B) develop speech to use as a primary means of communication. The roles of the parent and the child's educational setting are discussed and how they impact the benefit from cochlear implantation.

For ALL patients, the purpose of short or long term therapy is discussed. Adult family members are encouraged to attend the evaluation to learn how to support the patient. (1-2 hours at Hear in Dallas)

4. **Neuropsychology Evaluation** – For ADULTS, the purpose of the screening is to (A) obtain information regarding overall cognitive, adaptive, vocational, and emotional functioning relevant to preoperative concerns, and (B) assist the individual and their family in identifying and addressing current stressors and other factors which could influence compliance following cochlear implantation.

For CHILDREN AND ADOLESCENTS, the purpose of the screening is to (A) obtain information regarding overall cognitive, adaptive, emotional and behavioral functioning, (B) assist in developing a plan to address skills

of compliance and independence relevant to cooperation in rehabilitation, and (C) answer questions, address concerns, and offer emotional and behavior support to enhance preoperative or postoperative rehabilitation.

This evaluation is usually not covered by insurance and requires the patient or parents to pay for the evaluation fee of approximately \$150 at the time of the visit. Insurance will not be billed for this evaluation. (1 hour at Dr. Nuche's office)

5. **Videonystagmography (VNG) Balance Testing (ADULTS ONLY)** – This test involves a series of balance tests to determine the amount of balance function in each ear. The results of these tests can affect the choice of ear for cochlear implantation and help detect certain patients who may be prone to balance difficulties after cochlear implantation (1 hour at Dallas Ear Institute, A103)
6. **Insurance Precertification** – Obtaining approval from your insurance company for cochlear implantation can take several weeks. Our insurance department will keep you up to date on the progress of the precertification.
7. **General Medical Preoperative Exam by your Primary MD** – If you are age 40 or older OR of any age with medical conditions such as: high blood pressure, heart conditions, diabetes, etc., you may need to see your primary care physician for an exam that includes an EKG, Chest X-ray, and general blood tests. Your physician's office must fax us these results with a note from the physician stating that you are in reasonable condition to undergo the cochlear implant surgery.

PHASE III

1. **Preoperative Appointment** – When (and only when) all of the above steps are complete, a surgery date will be scheduled. Our administrator will call and inform you of your estimated out-of-pocket expenses related to the surgery. The day prior to your surgery, you will meet with your physician to review all of this information and confirm which ear is to be implanted. You will also be given one of two pneumococcal vaccines that are needed, the Prevnar and the Pneumovax, as recommended by the FDA and CDC, unless you are certain you have received them in the past. You may be given these at any point in the evaluation process but they must be given separately 2 months apart. The audiologist will contact you as to which brand of cochlear implant you have decided unless it was decided during the Cochlear Implant Evaluation appointment. (1 hour at Dallas Ear Institute, A103)
2. **Cochlear Implant Surgery** – The surgery takes approximately 1.5 hours. The majority of patients go home the same day of surgery except infants who often spend on night in the hospital. Further details of the surgery will be discussed with you by your physician and can also be found on our website at www.dallasear.com.
3. **One Week Postoperative Check and Cochlear Implant Equipment Orientation** – You will return to see your physician one week after surgery to check the incision for proper healing. You will then see the audiologist who will perform electrical checks on the internal implant. She will counsel and educate you concerning all of the external components of the cochlear implant system. You will be sent home that day with all of your implant equipment and instructions to learn at home. You or your child WILL NOT have your cochlear implant activated at this visit. (1-2 hours at Dallas Ear Institute, A103 and The Hearing Center, A107)
4. **Cochlear Implant Activation and Programming** – Activation usually takes place 3 weeks after surgery. That day you or your child will have the processor programmed and leave the office with the cochlear implant functioning. This is the beginning of learning to hear with an implant. You will be returning to the audiologist for programming of the processor at regular intervals to slowly increase the strength of the implant stimulation. (1 hour at The Hearing Center, A107)
5. **Auditory-Verbal Therapy** – You will schedule your Auditory-Verbal Therapy to begin sometime after activation. The frequency and duration of your Auditory-Verbal Therapy will be determined by your therapist. (Hear in Dallas)