

## Welcome Letter: Pediatric

Idaho State University Speech and Hearing Clinic  
921 S. 8th Avenue  
STOP 8116  
Pocatello, ID 83209

**[Date]**

Dear \_\_\_\_\_:

Welcome to Idaho State University's Speech and Hearing Clinic. It is our pleasure to serve your hearing needs, specifically regarding the possibility of cochlear implantation.

At our clinic, you will find a clinical and administrative staff that is truly superb. We are efficient, courteous, and work hard to provide the best services possible. Our Audiologists are licensed and certified through national and state agencies, and hold a minimum of a doctorate degree. Our clinicians stay current on the latest information by attending trainings and continuing education classes. As an educational facility, you will also work with Audiology Doctoral students under the direct supervision of our cochlear implant specialist.

### **About Your Visit**

In order for you to be seen promptly for your appointment, *please complete the enclosed paperwork* and bring it with you to your appointment. Please arrive 15 minutes before your scheduled time. *If you have any hearing reports or previous test results pertaining to you (or the patient), please bring those to the appointment as well.*

We ask that you please provide us with at least 48 hours notice if you are unable to keep your scheduled appointment in order to accommodate other patients to be scheduled. If your insurance company requires an authorization or referral for a hearing evaluation, we will need to have the authorization by the time of your visit so that we may bill your insurance for the services provided. Also, please bring your insurance card(s) with you.

If we can be of further assistance, please feel free to contact us at (208) 282-3495.

Again, welcome to the Idaho State University Speech and Hearing Clinic.

Sincerely,

cc:

Enclosures: Expectations

# Patient Information

## Personal Information

Full Name:

*Last*

*First*

*M.I.*

Address:

*Street Address*

*Apartment/Unit #*

*City*

*State*

*ZIP Code*

Home Phone:

Other Phone:

Email:

Birth Date:

Marital Status:

Parents/Guardians Name (If under 18):

Spouse's  
Name:

Spouse's  
Phone:

## Primary Doctor Information

Primary Physician:

Address:

Phone Number:

## Insurance Information

Insurance Company:

Address:

*Street Address*

*Apartment/Unit #*

*City*

*State*

*ZIP Code*

Primary Phone:

Group Number:

Relationship to Primary Holder:

Other:

## Expectations and Outcomes Questionnaire Pediatric

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Patient Name: \_\_\_\_\_

**With the Cochlear Implant (CI), my child.....** (Answer TRUE or FALSE)

- \_\_\_\_\_ will be able to use the telephone.
- \_\_\_\_\_ will be able to easily detect very quiet sounds in his/her environment (e.g., a whisper).
- \_\_\_\_\_ will be able to understand speech without relying completely on lip reading.
- \_\_\_\_\_ speech will be intelligible even for people who are unfamiliar with him/her.
- \_\_\_\_\_ will be able to follow a conversation with a group of people.
- \_\_\_\_\_ will be able to easily participate in social conversations.
- \_\_\_\_\_ will NOT need to look at the speaker's face.
- \_\_\_\_\_ will NOT need to use sign language at all.
- \_\_\_\_\_ will communicate easily with his/her family.
- \_\_\_\_\_ will not have any difficulties participating in a family conversation during mealtime.
- \_\_\_\_\_ will improve his/her communication skills (language and speech) tremendously.
- \_\_\_\_\_ will be able to produce a variety of speech sounds.

### SOCIAL SKILLS:

**With the Cochlear Implant, my child...**

- \_\_\_\_\_ will easily make friends with hearing peers.
- \_\_\_\_\_ will be accepted by his classroom hearing peers.
- \_\_\_\_\_ social skills will improve tremendously.

### ACADEMIC ACHIEVEMENTS:

**With the help of the Cochlear Implant, my child...**

- \_\_\_\_\_ will improve tremendously in his/her academic achievements.
- \_\_\_\_\_ will achieve high standards in reading and writing.
- \_\_\_\_\_ will achieve high standards in math.
- \_\_\_\_\_ will be able to participate easily in a regular classroom setting.

### CHANGE IN FUTURE LIFE:

**With the help of a Cochlear Implant, my child...**

- \_\_\_\_\_ will acquire normal hearing.
- \_\_\_\_\_ will be able to function like a child with typical hearing.
- \_\_\_\_\_ will have a dramatic change in his/her life.
- \_\_\_\_\_ the cochlear implant will change my child's future.

### REHABILITATION DEMANDS:

**With the/or after receiving a Cochlear Implant, my child...**

- \_\_\_\_\_ will need to participate in intensive listening training.
- \_\_\_\_\_ will undergo intensive therapy for many years.
- \_\_\_\_\_ will not need prolonged speech training like children who use hearing aids.
- \_\_\_\_\_ Parents of children with CI's will have to put in a lot of effort into rehabilitation.
- \_\_\_\_\_ Parents of children with CI's will have to schedule a lot of time in order to work with their child.

PARENTAL SATISFACTIONS:

**Currently, I am...**

\_\_\_\_\_satisfied with my child's communication abilities.

\_\_\_\_\_satisfied with my child's social skills.

\_\_\_\_\_satisfied with my child's academic abilities.

STRESS:

\_\_\_\_\_I often regret the extra time our family devotes to the problems of hearing loss.

\_\_\_\_\_More family arguments are about our hearing-impaired child than about other things.

\_\_\_\_\_Much of the stress in my family is related to deafness/hearing impairment.

\_\_\_\_\_My hearing-impaired child's behavior has often been a source of worry to me.

\_\_\_\_\_Family and friends usually treat my hearing-impaired child the same as they would treat a hearing child of the same age.

\_\_\_\_\_Because of the hearing loss, it was (is) necessary for me to forget many hopes and dreams that I had for my child.

\_\_\_\_\_In the preschool years, my child's hearing loss created so many demands that I never had (have) time for myself.

RELATIONSHIPS:

\_\_\_\_\_Differing opinions from professionals have made it hard for me to make decisions about schooling for my hearing-impaired child.

\_\_\_\_\_I feel satisfied with the educational progress of my hearing-impaired child.

\_\_\_\_\_Many times I have been angry because of the way professionals treated me as the parent of a hearing impaired child.

\_\_\_\_\_I have no regrets about the educational opportunities that have been available to my hearing-impaired child.

\_\_\_\_\_It is frustrating for me as a parent to have so many different opinions among professionals who work with hearing-impaired children.

COMMUNICATION:

\_\_\_\_\_I wish I could communicate as well with my hearing-impaired child as I do with my other hearing child.

\_\_\_\_\_I wish some of the other members of my family could communicate more easily with my hearing-impaired child.

\_\_\_\_\_My hearing-impaired child is often left out of family conversations because of communication problems.

\_\_\_\_\_There are many things I cannot seem to communicate to my hearing-impaired child.

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What would you consider an "unacceptable" implant outcome?

What do others (siblings, family, friends) think about the implant and its potential outcome?

How long do you think it will take to receive benefit from the implant? (weeks, months, years?)

What is your primary motivation for obtaining a cochlear implant?

**Cochlear Implant Enrollment Check Form  
Pediatric and Adult**

You have been enrolled in the cochlear implant evaluation process. In order to determine if you are a candidate for a cochlear implant, please make the following appointments:

<b>Appointment Type</b>	<b>Specialist</b>	<b>Phone</b>	<b>Date/Time/Location</b>
<b>PRE-SURGERY APPOINTMENTS</b>			
<input type="checkbox"/> Surgeon Consultation	Richard Lee, MD	208-522-6335	_____
<input type="checkbox"/> Audiology Consultation	ISU Hearing Clinic	208-282-3495	_____
<input type="checkbox"/> CT/MRI Scan	Radiology	208-	_____
	Radiology	208-	_____
<input type="checkbox"/> Learning Specialist Evaluation (Pediatric patients only)		208-	_____
<input type="checkbox"/> Speech/Language Evaluation (Pediatric patients only)		208-	_____
<input type="checkbox"/> Meningitis Immunizations	<i>Your Primary Care Physician</i>		_____
<input type="checkbox"/> Surgery Scheduling	Richard Lee, MD	208-522-6335	_____
<b>POST-SURGERY APPOINTMENTS</b>			
<input type="checkbox"/> Surgeon Follow-up	Richard Lee, MD	208-522-6335	_____
<input type="checkbox"/> Audiology Follow-up	ISU Hearing Clinic	208-282-3495	_____
	• Initial Stimulation		_____
	• Map Optimization		_____
	• Auditory Training Schedule		_____

Other:

Keep this information in a safe place for your records.

## Cochlear Implant Education Checklist Pediatric and Adult

What is a CI?  
Demonstration of internal device and processor  
How does the device work?

Candidacy  
Does the patient qualify?

Counseling PowerPoint  
Factors Influencing Performance Outcomes  
Process  
Insurance  
Surgery  
Pediatric:  
    Choosing an Educational Setting  
    Language and Communication Planning

Internal/Processor Product Guides  
Advanced Bionics  
Cochlear  
Med-El

\*Please see Cochlear Implant Counseling PowerPoint, Appendix A

I, \_\_\_\_\_, have received the above information regarding Cochlear Implant Education, either by verbal and/or visual information presented to me in a clinical setting with an opportunity to ask questions.

\_\_\_\_\_  
Patient (Parent/Guardian) Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Patient (Parent/Guardian) Printed Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Audiologist Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Audiologist Printed Name

\_\_\_\_\_  
Date

## Benefits and Risks of Cochlear Implants

### *What are the Benefits of Cochlear Implants?*

#### *For people with implants:*

- **Hearing ranges from near normal ability to understand speech to no hearing benefit at all.**
- **Adults often benefit immediately** and continue to improve for about 3 months after the initial tuning sessions. Then, although performance continues to improve, improvements are slower. Cochlear implant users' performances may continue to improve for several years.
- **Children may improve at a slower pace.** A lot of training is needed after implantation to help the child use the new 'hearing' he or she now experiences.
- **Most perceive loud, medium and soft sounds.** People report that they can perceive different types of sounds, such as footsteps, slamming of doors, sounds of engines, ringing of the telephone, barking of dogs, whistling of the tea kettle, rustling of leaves, the sound of a light switch being switched on and off, and so on.
- **Many understand speech without lip-reading.** However, even if this is not possible, using the implant helps lip-reading.
- **Many can make telephone calls** and understand familiar voices over the telephone. Some good performers can make normal telephone calls and even understand an unfamiliar speaker. However, not all people who have implants are able to use the phone.
- **Many can watch TV more easily,** especially when they can also see the speaker's face. However, listening to the radio is often more difficult as there are no visual cues available.
- **Some can enjoy music.** Some enjoy the sound of certain instruments (piano or guitar, for example) and certain voices. Others do not hear well enough to enjoy music.

### *What are the Risks of Cochlear Implants?*

#### *General Anesthesia Risks*

- General anesthesia is drug-induced sleep. The drugs, such as anesthetic gases and injected drugs, may affect people differently. For most people, the risk of general anesthesia is very low. However, some people with certain medical conditions are at a higher risk for complications.

#### *Risks from the Surgical Implant Procedure*

- **Injury to the facial nerve** --this nerve goes through the middle ear to give movement to the muscles of the face. It lies close to where the surgeon needs to place the implant, and thus it can be injured during the surgery. An injury can cause a temporary or permanent weakening or full paralysis on the same side of the face as the implant.
- **Meningitis** --this is an infection of the lining of the surface of the brain. People who have abnormally formed inner ear structures appear to be at greater risk of this rare, but serious complication. For more information on the risk of meningitis in cochlear recipients, see the nearby Useful Links.
- **Cerebrospinal fluid leakage** --the brain is surrounded by fluid that may leak from a hole created in the inner ear or elsewhere from a hole in the covering of the brain as a result of the surgical procedure.
- **Perilymph fluid leak** --the inner ear or cochlea contains fluid. This fluid can leak through the hole that was created to place the implant.

- **Infection** of the skin wound.
- **Blood or fluid collection** at the site of surgery.
- **Attacks of dizziness or vertigo.**
- **Tinnitus**, which is a ringing or buzzing sound in the ear.
- **Taste disturbances** --the nerve that gives taste sensation to the tongue also goes through the middle ear and might be injured during the surgery.
- **Numbness** around the ear.
- **Reparative granuloma** --this is the result of localized inflammation that can occur if the body rejects the implant.
- There may be other unforeseen complications that could occur with long term implantation that we cannot now predict.

### *Other Risks Associated with the Use of Cochlear Implants*

#### *People with a cochlear implant:*

- **May hear sounds differently.** Sound impressions from an implant differ from normal hearing, according to people who could hear before they became deaf. At first, users describe the sound as "mechanical", "technical", or "synthetic". This perception changes over time, and most users do not notice this artificial sound quality after a few weeks of cochlear implant use.
- **May lose residual hearing.** The implant may destroy any remaining hearing in the implanted ear.
- **May have unknown and uncertain effects.** The cochlear implant stimulates the nerves directly with electrical currents. Although this stimulation appears to be safe, the long term effect of these electrical currents on the nerves is unknown.
- **May not hear as well as others** who have had successful outcomes with their implants.
- **May not be able to understand language well.** There is no test a person can take before surgery that will predict how well he or she will understand language after surgery.
- **May have to have it removed** temporarily or permanently if an infection develops after the implant surgery. However, this is a rare complication.
- **May have their implant fail.** In this situation, a person with an implant would need to have additional surgery to resolve this problem and would be exposed to the risks of surgery again.
- **May not be able to upgrade** their implant when new external components become available. Implanted parts are usually compatible with improved external parts. That way, as advances in technology develop, one can upgrade his or her implant by changing only its external parts. In some cases, though, this won't work and the implant will need changing.
- **May not be able to have some medical examinations** and treatments. These treatments include:
  - MRI imaging. MRI is becoming a more routine diagnostic method for early detection of medical problems. Even being close to an MRI imaging unit will be dangerous because it may dislodge the implant or demagnetize its internal magnet. FDA has approved some implants, however, for some types of MRI studies done under controlled conditions.
  - neurostimulation.
  - electrical surgery.
  - electroconvulsive therapy.
  - ionic radiation therapy.
- **Will depend on batteries** for hearing. For some devices new or recharged batteries are needed every day.



- **May damage their implant.** Contact sports, automobile accidents, slips and falls, or other impacts near the ear can damage the implant. This may mean needing a new implant and more surgery. It is unknown whether a new implant would work as well as the old one.
- **May find them expensive.** Replacing damaged or lost parts may be expensive.
- **Will have to use it for the rest of life.** During a person's lifetime, the manufacturer of the cochlear implant could go out of business. Whether a person will be able to get replacement parts or other customer service in the future is uncertain.
- **May have lifestyle changes** because their implant will interact with the electronic environment. An implant may
  - set off theft detection systems
  - set off metal detectors or other security systems
  - be affected by cellular phone users or other radio transmitters
  - have to be turned off during take offs and landings in aircraft
  - interact in unpredictable ways with other computer systems
- **Will have to be careful of static** electricity. Static electricity may temporarily or permanently damage a cochlear implant. It may be good practice to remove the processor and headset before contact with static generating materials such as children's plastic play equipment, TV screens, computer monitors, or synthetic fabric. For more details regarding how to deal with static electricity, contact the manufacturer or implant center.
- **Have less ability to hear** both soft sounds and loud sounds without changing the sensitivity of the implant. The sensitivity of normal hearing is adjusted continuously by the brain, but the design of cochlear implants requires that a person manually change sensitivity setting of the device as the sound environment changes.
- **May develop irritation** where the external part rubs on the skin and have to remove it for a while.
- **Can't let the external parts get wet.** Damage from water may be expensive to repair and the person may be without hearing until the implant is repaired. Thus, the person will need to remove the external parts of the device when bathing, showering, swimming, or participating in water sports.
- **May hear strange sounds** caused by its interaction with magnetic fields, like those near airport passenger screening machines.

As adapted from U.S. Food and Drug Administration. (2010). *Benefits and risks of cochlear implants*.

Retrieved from

<http://www.fda.gov/medicaldevices/productsandmedicalprocedures/implantsandprosthetics/cochlearimplants/cm062843.htm>

## Acknowledgement of Benefits and Risks of Cochlear Implants

Your ear problems may be helped by a cochlear implant. As with any surgery there are not only benefits but also risks. You must keep in mind that you may not benefit from the surgery, and your hearing may be worse after surgery.

I, \_\_\_\_\_, have been provided and read the Benefits and Risks Information of Cochlear Implantation, courtesy of information provided by the U.S. Food and Drug Administration. I hereby understand the benefits and risks of cochlear implantation.

\_\_\_\_\_  
Patient (Parent/Guardian) Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Patient (Parent/Guardian) Printed Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Audiologist Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Audiologist Printed Name

\_\_\_\_\_  
Date