

The Cochlear-Implanted Child
By Shari Seigworth, SLP

I think there is a lot of misinformation out there. I really wish there was a better understanding of what the CI really is. A CI does not mean the child has to take an oral/aural route only. The CI does not mean a child cannot have an identity of Deafness. It does not deny that the child can be enriched by ASL. And it does not mean the child will be an auditory learner. I have known deaf people who I would classify as an auditory learner but are profoundly deaf and yet there are many hearing children that have little to no auditory skills but perfect hearing. The type of learner you are is not necessarily dependent on the ability to hear.

It seems as if many people are really afraid that deaf children from hearing families are all going to get CIs, but it just isn't true. One response speculated that within five years all children from hearing families will be implanted. If I look at the numbers of students on my caseload and then look again at the number of students with CI, I can tell you it is a small percentage who have CIs. Yet, most of the student still come from hearing families. I have more kids that have CIs and don't use them than I do kids who actually use them. Only 10% of my caseload actively use a CI. There are about 20% that have CIs (the other 10% don't use their CI). In the entire district, there is less than 10% of our deaf and hard of hearing students who have a CI. I also think it is worthy to highlight that the CI was FDA approved nearly 25 years ago, yet I have less than 10% of my students with a CI.

There are just so many things that go into the deciding factors of who is a candidate for a CI. Kids from low incomes are generally not candidates. Kids who have little parent involvement are not candidates, and children from bi-lingual families are less likely to be candidates. Now looking at my caseload, I only have active parents from 10% of my kids. There appears to be a trend that deaf and hard of hearing children are from low income families (with poor prenatal care, illness, and lack of medical attention causing a large amount of deafness in low income families), and 50% of my

caseload is made up of students coming from families where English is a second or third language.

CIs get a lot of attention as being the downfall of Deaf culture, but I can also tell you that I have more students on my caseload that have CIs than are out in the district with CIs. All of the students I work with that have CIs have a strong self-identity and strong root in ASL. I would not recommend that any of my students with CIs be educated oral/aural only. There just isn't a benefit to being deprived. I will admit that the students with CIs at their home school are not educated in ASL or sign, but those students only make up about 10% of the students in the district with a CI. We have just as many students at their home school that have a severe to profound deafness and are educated in English without ASL or sign of any kind. I worry more about those student's self-worth, success academically, and self-identity.

No matter what, I believe a child should have access to language and learning, and in some instances that means the student will have more access to language and learning if they have a CI. There are far less than 10% of my students that even have hearing families who attempt to sign at or above the level of their child and less than 10% of the hearing families that can even sign at or above a two year old level. How is it any benefit to those children to go home to no communication?

OH, I AMOST FORGOT...The idea of a CI being a fix for deafness... As a professional working with DHH students and getting the benefit of hearing simulators of what it is like to have various hearing losses and having the experience of what the sound quality is from a hearing aid (digital or analog) and what sound is like through a CI, there is NO comparison between natural hearing and what a CI provides. First off, the CI is only as good as the processor, which fails on occasion and leaves the individual as deaf or more deaf than he/she was previous to getting the CI. The CI only gives a set number of frequencies, while hearing and hard of hearing children get an entire spectrum of sound (not isolated to a few frequencies). The child

with natural hearing can listen to things and generally does things from a top down process. A child with a CI almost always has to use a bottom up process when it comes to auditory stimuli.

The best analogy I can come up with for this is trying to read if you could only see vowels. You are required to learn to understand the patterns of words based off of only seeing the vowels and you must also memorize what the consonants you are missing without being able to see them. Try to read the familiar passage below.

I **e**e a**e*ia**e *o **e **a* o* **e
 i*e* **a*e* o* A*e*i*a, a *o **e
*e*u**i* *o* **i** i* **a***, o*e *a*io*,
 u**e* *o*, i**i*i*i*e *i** *i*e**y a**
*u**i*e *o* a**.

This is providing the best case scenario. You are getting the vowels and knowing how many and where the consonants are. Children with CIs don't always get a full insertion of all the electrodes, so that would be equivalent to not having all the vowels, or maybe the child's processing is slower which would be equivalent to removing all the stars that are acting as place holders for the consonants.

Using the same analogy for a hard of hearing child, read the same passage as it would generally be perceived by a child with a moderate to severe hearing loss.

I pledge allegian*e *o **e *lag of **e
 Uni*ed **a*e* of America, and *o **e
 republic* for whi** i* **and*, one
 na*ion, under god, indivi*ible with liber*y
 and ju**i*e for all.

This pretty much represents the largest number of hard of hearing individuals. The high frequencies have been wiped out, which makes grammar difficult to understand as word endings are often left unheard, but no matter what, a hard of hearing child naturally has a greater spectrum of hearing than a child with a CI. Again, slow processing would be equivalent to taking out the stars

marking the unheard consonants and depending on the hearing loss you might get a few more or less consonants and vowels. Most people with a normal IQ will still be able to get the main idea of the passage though.

This is where hearing children definitely have the advantage. The true passage is below.

I pledge allegiance to the flag of the United States of America, and to the republic for which it stands, one nation, under god, indivisible with liberty and justice for all.

Anyway, a CI is far from a fix for hearing. There is a lot of training that goes into teaching a child to make sense of their world through auditory stimuli using a CI. Even children implanted at a really young age with all the advantages possible will still have some difference in comparison to a child with natural hearing.