

Cochlear Implants

Navigating a Forest of Information...One Tree at a Time

<http://clerccenter2.gallaudet.edu/KidsWorldDeafNet/e-docs/CI/index.html>

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KidsWorld Deaf Net E-Document: *Cochlear Implants: Navigating a Forest of Information...One Tree at a Time*
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Getting Started—An Introduction

Growing numbers of children and families from a variety of backgrounds and using a variety of communication methodologies are choosing use of cochlear implant technology.

During its early history, a cochlear implant was felt to be most beneficial for adults, especially adults who had lost their hearing later in life. As the technology has improved and the risks related to the surgery have lessened, use of this technology is increasing for a growing population of persons with hearing loss, specifically young children who are implanted prior to learning language.

More than 700 professionals involved with cochlear implants attended the February 2001 symposium on Cochlear Implants in Children, hosted by the House Ear Institute in Los Angeles. Of note is the fact that just five years before, this conference attracted only 20 people.

As the number of implanted children has increased, so has the variability in student outcomes related to the use of spoken language. Many long-term outcomes continue to be unknown due to the changing characteristics of both the cochlear implants themselves and the children who are receiving them. Cochlear implants are improving in their potential to provide implant users with increasingly sophisticated sound-processing systems. In addition, the pool of children receiving cochlear implants is growing quickly in number and diversity and now includes greater numbers of students implanted at younger ages than in the past. All of these factors make early research difficult to apply to the outcomes for the new generation of students obtaining cochlear implants.

Variability in student outcomes with cochlear implants necessitates a look at educational and communication programming for these students through the same lens that we look at variability in the population of deaf children who do not use cochlear implants. Just as there is no single profile of a “deaf” child, there is no single profile of a deaf child with a cochlear implant. As professionals provide information and families make decisions about cochlear implant technology, there are many things to consider ranging from the medical aspects of the procedure and educational and communication aspects of the technology, to the practical, day-to-day life issues surrounding the implant.

As coordinator of the [Cochlear Implant Education Center](#) at Gallaudet University’s Laurent Clerc National Deaf Education Center and an audiologist by training, I have been working since 1977 with deaf children and their families. Through my direct experiences and the opportunities to network—with families, audiologists, doctors, speech-language pathologists, school administrators, teachers, and cochlear implant users throughout the country—I have had the opportunity to discover and evaluate the wealth of excellent (and not so excellent) available resources on cochlear implants for children and adolescents.

This document is designed to assist parents and educators in navigating the way through this extensive “forest” of information. It additionally provides insights into topics where

the Web has limited information—specifically educational considerations related to the diverse group of children with cochlear implants now assimilating into our schools. As you read this document, keep in mind that while cochlear implants provide a range of opportunities, they are not appropriate for every deaf child. It is important that decisions to utilize this technology be made looking at the whole child within the family unit and with respect for individual choice.

Hopefully, my hours of investigating resources can cut down on the time needed for others to find their way through the often dense forest of information on cochlear implants, as well as provide a few new insights into this topic. Let's navigate the path one tree at a time.

Note: These modules are not in a specific order.



What is a Cochlear Implant?

Includes:

Components of the Device

How a Cochlear Implant Works



Cochlear Implant Candidacy

Includes:

Who is a Candidate?

Who is Not a Candidate?

Other Factors Impacting Candidacy



Factors Influencing Performance

Includes:

The Benefits and Limitations of Cochlear Implants

Performance: Things to Keep in Mind

Factors Impacting Performance

In Summary



The Decision-Making Process

Includes:

Realistic Expectations

Level of Commitment

Looking at the Whole Deaf Child

Including Older Students

Gathering Information



Considerations in the Implantation Process

Includes:

Beginning the Process

What's Involved in the Process?

Choices During the Implantation Process

Things to Ask the Cochlear Implant Center

 **What About Insurance?**

Includes:
Issues Related to Coverage
Six Services Associated with Implantation

 **Surgical Considerations**


Includes:
During Surgery
After Surgery
Associated Risks

 **Choosing an Educational Setting**

Includes:
Placement Options
Considerations for Making Decisions

 **Choosing a Communication Methodology**

Includes:
Issues to Keep in Mind
Communication Environment

 **Considerations for the Use of Sign Language**


Includes:
The Debate
Growing Support for the Use of Sign Language
Basic Beliefs
Reasons to Consider Sign Language Use for Children with a Cochlear Implant
Varied Roles of Sign Language
What Literature Reports About Sign Language and Cochlear Implants
Considerations for Educational Placement
Developing Spoken Language in Signing Environments

 **Cochlear Implants and the Deaf Community**

Includes:
Definition of the Deaf Community
Definition of Deaf Culture
Deaf Community View on Cochlear Implants
National Association of the Deaf Position Paper

 **Fitting the Speech Processor**

Includes:
Setting a Map
Speech-processing Strategies

 **Training the Ear to Listen**

Includes:
Considerations for Training
Equipment Troubleshooting

The Stages of Listening and Speaking Development
Skill Assessment
Curriculum Guides
Adjusting Communication Variables
Sign Language as a Support to Listening
About Auditory-Verbal Therapy



Resources

Includes:

Manufacturer Information

Agencies/organizations

Web Resources

Suggested Scales of Development and Assessment Tools

Computer Software for Developing Spoken Language Skills

Curricula/Training Programs

Books

Additional Resources