

# Loud & Clear!



A Cochlear Implant Rehabilitation Newsletter

Issue 2 2005

## Table of Contents

- Perspectives From a Cochlear Implant Center.
- Perspectives From a Public School. A Cochlear Implant Student is Coming.
- References

## MEETING THE EDUCATIONAL NEEDS OF A CHILD WITH A COCHLEAR IMPLANT

### – Special Double Feature –

*with articles by cochlear implant experts:  
Teresa Zwolan and Anita Vereb and Jennie Hulme*

Editors: Amy McConkey Robbins, MS and Patricia Trautwein, Au.D.

## Perspectives From a Cochlear Implant Center

by Teresa Zwolan, PhD, and Anita Vereb, MS,  
University of Michigan Cochlear Implant Program

Provision of improved hearing via a cochlear implant has not only increased children's potential for success with spoken language but has also increased their potential for success in the classroom. This is evidenced by recent research indicating that about half of the children who receive implants at a young age demonstrate spoken language skills commensurate with those of their normal hearing peers (Geers et al., 2003; Moog, JS,

2002; Hammes et al. 2002; Rhoades & Chisolm, 2001). Research also indicates that some children with cochlear implants are closing the gap in academic performance that has traditionally existed between hearing-impaired children and their normal-hearing peers (Francis et al, 1999). Such accomplishments have not come easily. Managing the academic needs of a child with a cochlear implant can be a difficult task when parents face well-meaning professionals who have strong and

Continued on page 2

ADVANCED  
**BIONICS**  
A Boston Scientific Company

[www.BionicEar.com](http://www.BionicEar.com)

For additional copies of Loud & Clear, please email:  
[Info@AdvancedBionics.com](mailto:Info@AdvancedBionics.com)  
Phone: (661) 362-1581

An Advanced Bionics® Corporation Publication

## Perspectives From a Public School

### A Cochlear Implant Student is Coming

By Jennie Hulme, MEd

One Tuesday morning, the Director of Special Education in a small school system receives a phone call from a parent who has a daughter with a cochlear implant. The family has just bought a new home in town, and the father expects that they will be moving in next month. He wants to be sure that the school is ready for his daughter.

Continued on page 4

often differing opinions regarding what is best for the child. When faced with developing an educational plan, parents need to equip themselves with knowledge, persistence, and a team of professionals that will support their quest for academic success.

The purpose of this article is to provide one clinic's perspective about the ways parents are counseled to advocate for appropriate educational services for their child with a cochlear implant. Three primary areas that will be discussed include setting academic goals, understanding federal and state special education laws, and educating others about cochlear implants.

### Setting goals for academic success

Since the cochlear implant is a tool for aural/oral communication, preoperative testing to determine candidacy for a cochlear implant should begin with a discussion regarding the goals the parents have for their child's development of or use of spoken language. Such goals are important as they will influence several aspects of the child's care, including expectations for performance, selection of the child's academic setting, and the family's dedication and commitment to the rehabilitative process. Such goal-setting often requires a great deal of work, such as making arrangements to meet and observe teachers, parents and children with cochlear implants who utilize various communication options as this will help them determine the educational setting that is most suitable for their family. Additionally, parents should ask the implant center to provide them with their professional opinion regarding the child's potential to reach the spoken language goals of the parents. Such an opinion should be based on several factors known to affect performance with a cochlear implant, including the child's age, age at onset of hearing loss, age at implantation, language level, cognitive status, degree of hearing loss, and prior experience with sound. Following such a discussion, the

clinic and the parents should develop a plan to support and reach the spoken language goals the parents have set for their child. This plan should include regularly scheduled speech/language, speech perception, and academic evaluations to monitor progress and to determine if the stated goals are being met. The results of these evaluations should be shared with parents and school personnel, and recommendations should be made to modify the educational setting if indicated.



Additionally, parents should meet with school personnel to discuss their plans for a cochlear implant and to discuss the role the implant will play in the child's academic setting. Parents should openly discuss the spoken language goals they have set for their child, and they should be prepared to work with school personnel to determine the procedures that will be used to ensure that the goals are met. Importantly, parents need to be aware of and understand state and federal laws related to their child's education (see next section). In many instances, school personnel will also need to receive informa-

tion about the technology, use and care of the cochlear implant.

The amount of effort parents put into development of their child's educational plan varies greatly. Some families play a vital role while others rely heavily on the expertise of school personnel. In our clinic, parents are encouraged to take an active role in all activities related to their child, particularly those related to the child's academic setting.

### Understanding Federal and State laws regarding special education

In order to adequately manage their child's education, parents must become familiar with federal laws that affect the educational rights of their child. They need to be aware that Public Law 94-142, the Education for All Handicapped Children Act, was passed in 1975 and provides federal funding for special education. Over the years, many amendments have been made to this law, including mandate of services for early intervention and early childhood special education (birth to three populations). In 1990 the law was renamed the Individuals with Disabilities Education Act (IDEA). There are six basic principles of IDEA: 1) free appropriate public education (FAPE), 2) appropriate evaluation, 3) individualized educational program (IEP) for school aged children and individual family service plan (IFSP) for birth to three populations, 4) least restrictive environment, 5) parent and student participation in decision making, and 6) procedural safeguards. In December 2004, IDEA was re-authorized to the Individuals with Disabilities Educational Improvement Act and signed into law by President George W. Bush. This law went into effect July 1, 2005. Some changes to the law that have a direct impact on services provided to children with cochlear implants include a requirement that services be provided by highly qualified professionals who utilize scientifically based instructional practices. Additional infor-

mation on IDEA re-authorization can be found by contacting the National Information Center for Children and Youth with Disabilities (NICHY) at [www.nichcy.org](http://www.nichcy.org) or v/tty (800)695-0285.

Importantly, federal law states that children with disabilities have the right to receive a free appropriate public education in a least restrictive environment designed specifically for the individual child or family. Under this law, the school or the parents can call an individualized educational program (IEP) meeting at anytime. Such a meeting should occur at least annually and takes place at a mutually agreeable time and location. Some helpful hints regarding the IEP process are summarized below. First, parents have the right to request a copy of their child's school records to review ahead of time in preparation of the IEP meeting. Secondly, parents may want to consider tape recording the meeting and reviewing what was discussed prior to officially signing the IEP. When creating an IEP there are various services, accommodations and modifications that may be appropriate to include in the IEP to facilitate a least restrictive environment. For children with cochlear implants these may include: speech therapy (one on one vs. group), auditory therapy, real-time captioning, educational interpreter (ASL, oral, cued speech), closed captioning, FM systems (personal, portable, soundfield), notetaker, tutoring, pre-teaching of vocabulary, preferential seating, audiological services, reading specialist, and classroom acoustic modifications, to name a few. Parents, schools and cochlear implant centers need to work closely together to ensure that the child is in an appropriate academic setting and to ensure that appropriate accommodations are included in the IEP.

In addition to being informed of Federal laws, parents need to be familiar with State laws regarding special education. State laws may go beyond the Federal requirements established by IDEA. Parents can obtain a free copy of their State Parent Handbook on Special Education by contacting the Office of Special Education at their State Department of Education. For those children who do not qualify for special education but still need accommodations or technology to participate in federally funded programs, assistance may be obtained by mandates set forth by Section 504 of the 1973 Rehabilitation Act as well as by the Americans with Disabilities Act (ADA).

#### **Educating others about cochlear implants**

Many school systems have limited experience or information about children with cochlear implants. Although many professionals have become familiar with cochlear implants, a great number of professionals are just learning about this technology. Many undergraduate teacher-of-the-deaf training programs contain little information about implants in the curriculum, resulting in many experienced teachers and recent graduates who are still not familiar with this technology. Secondly, there are many educators who have children with implants enrolled in their classroom for the first time. This is particularly true of teachers in mainstream settings. These two factors have resulted in the need for educational outreach regarding cochlear implants in the school setting.

Because many implant centers lack the resources and manpower to in-service the growing number of school professionals about cochlear implants, this responsibility often rests with the parents. Videotapes, information packets, and educational CDs can be obtained

## Parent checklist in advocating for their child's education needs:

### 1. Openly discuss the goals you have for your child with school personnel.

#### 2. Be familiar with the law.

- IDEA
- The Rehabilitation Act of 1973
- The Americans With Disabilities Act (ADA)
- Specific laws of your state's Department of Education

#### 3. Prepare for the IEP.

- Find out what programs are available in your district.
- Gather and review all your child's records from various professionals and school district.
- List your goals for your child.
- Talk with other parents within and outside of your area.

#### 4. Attend the IEP.

- Present yourself as an equal member of the team.
- Bring all your notes and records.
- Take notes.
- Keep on topic.
- If you need to talk with your spouse, ask for a break.
- Remember that the team must work together for your child's success.

#### 5. Follow Up.

- Write a summary of the meeting from your perspective.
- Obtain and review IEP report from school.
- If necessary, call or schedule another meeting to discuss any concerns.
- Communicate often with your child's educational team.
- Keep up to date file of your child's records.
- Share information between school and programming center.

from implant manufacturers (they are often provided free of charge) and are welcomed by school personnel.

The role of cochlear implant centers in the educational management of children varies greatly and is often determined by the center's manpower and financial resources. Costs related to visiting a child's school by implant personnel are sometimes written into the child's IEP, although school visits are traditionally poorly reimbursed. One option is for school personnel to accompany the child to his/her appoint-

ments in the clinic. Such visits are a great opportunity for school personnel to observe the procedures used to program the device and such visits can provide an opportunity for professionals to discuss various aspects of the child's care.

Importantly, parents need to realize that state and federal laws make it possible for their child to receive a free appropriate public education in a least restrictive environment designed specifically for the individual child or family. The best possible way to determine the needs of a specific

child is with efforts led by the parents that include input from the school and the implant center. Although this can be a daunting task, there are numerous resources available to assist parents as they manage the advocacy process for their child. We encourage parents to consider some of the resources we provided (on page 8) in hopes that they will find the assistance they need in order to obtain the best possible services for their child.

Continued from page 1

With just a month's notice, there is much to be done if the school is to be ready. Administrators usually assign the responsibility for new students to the most knowledgeable person on their staff who may or may not have had prior experience with children with cochlear implants. This person could be the supervisor of speech and language services, a speech and language pathologist, or teacher of the hearing impaired.

## I. What Should School Personnel Do?

### A. BECOME INFORMED

The first step is to become informed about cochlear implants and speech processors. Being informed results in confident communication with parents and is essential for good planning. Responding positively to parents is probably the most important factor in developing a relationship between home and school that will benefit the child.

#### How to become informed:

1. Read descriptive materials. Advanced Bionics has helpful resources available for professionals via the Bionic Ear Association, including the Tools for Schools kit with the detailed *Educators' Guide to Cochlear Implants* available at [www.bionicear.com](http://www.bionicear.com).
2. Read the child's records, including standardized academic and language test results.
3. Observe other children with cochlear implants in schools nearby—those who are in special day programs for hearing impaired children, as well as those who are fully mainstreamed in their home schools.
4. Observe the new child in his or her current placement if possible.

### B. GET ORGANIZED

1. Decide who the case coordinator will be in your school system and place that person in contact with the parents, the implant center, and other appropriate agencies.
2. Consult the regional educational service center in your area or State Department of Special Education/ Deaf and Hard of Hearing Program (DHH) to determine available services. Educational audiologists and teachers of the hearing impaired are often available. If they are not, request that the service center plan to offer these specialists in the future.
3. Ask the parents if the child's cochlear implant center has an educator on their team who is available for consultation. If so, contact the implant center and request assistance.
4. Consider the acoustical environments of the school setting (e.g., classroom, lunch room, hallways, and auditorium). Is there a need for some modifications and improvements? Consult the *Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools* (2002). You may need a consultant to make recommendations.
5. Meet with the parent and discuss the needs they believe their child has and accommodations implemented at his or her previous educational setting.
6. Get recommendations from the child's programming or educational audiologist for the purchase of FM equipment. Personal FM is usually preferred. Soundfield FM is an acceptable option if personal FM is not appropriate.
7. Arrange audiological support services for the child and the necessary FM system.

### C. THINK ABOUT POSSIBLE GRADE PLACEMENT

Parents and school personnel often have a difficult time determining the appropriate grade level for a hearing impaired child who is not at age-appropriate levels in spoken language or academic skills. **If the child is entering a regular education classroom for the first time, the best approach is to determine the level at which the child can be successful. This is accomplished using standardized testing, informal assessment, observation, and reports from informed adults**, as explained below. Mainstreaming is challenging, and readiness for the academic content is critical. The decision to place a child at his or her chronological age level may result in stress and frustration if the child is delayed in spoken language and academic skills. When extensive one-on-one instruction is necessary to meet the academic demands of a particular grade level, the child will have little opportunity to learn with his or her peer group. In contrast, if the child had been placed just one grade level lower, there would have been time to adjust to the pace of regular education instruction, experience success, and have good peer group interactions.



#### How do we know we have correctly placed a child?

Important questions to consider:

- Is the child no more than a year or two older than his or her classmates?
- Can the child communicate easily with his or her friends?
- Is the child's understanding and use of language equal to the social demands of the school setting?
- Does he have the pragmatic skills of explanation and persuasion? Is he able to give directions and tell stories? Can

he negotiate his way into groups, form friendships, and be included in the life of the classroom?

- Based upon standardized tests and teacher report, are the child's academic skills on grade level or no more than a year or two below the norm for that class?
- Can the child keep up with the pace of instruction? If the lessons move too quickly or lack appropriate structure, the child will not feel successful.
- Has listening developed enough that the child can function as an independent learner and comprehend new concepts and content?

### D. PREPARE FOR THE IEP MEETING

#### Who should attend?

- Parents
- School system administrator
- Regular education teacher
- Related service personnel (e.g., teacher of the hearing impaired, speech/language pathologist, educational audiologist, school nurse, and occupational and physical therapists if indicated)
- Implant center representative, if available
- The child if he or she is over 14 years of age

#### Draft possible goals and objectives prior to the meeting.

Goals and objectives for the special educational services should be prepared in a draft format prior to the meeting. It is anticipated that unless the child is age appropriate in all areas of spoken and written language, objectives will be necessary in the following domains:

- Audition/auditory skill development
- Spoken language, both receptive and expressive skills
- Speech skills on a developmental continuum
- Academic support for language arts, reading, math, science, and social studies
- Some children may need goals to address social/emotional development, study skills, personal responsibility, and independence

**Some suggested broad goals under which objectives would be specifically written to address the child's current skill levels are:**

**AUDITION** To develop auditory skills of perception and discrimination and demonstrate comprehension of spoken language.

**LANGUAGE** To develop receptive and expressive language skills to age-appropriate levels.

**SPEECH** To develop intelligible speech.

**ACADEMIC AREAS** To achieve passing grades in academic classes.

**How much individual special education is necessary?**

The answer to this question is of course determined by the child's communication skills and academic skills. If the child is not able to be successful in a regular education classroom with an hour per day of individual support, then it is likely that the placement decision needs to be revisited. The use of one-on-one aides and extensive amounts of individual help are indicators that the child may not be ready for that particular class setting. Children should truly be members of the class in which they have been placed, not the child who leaves frequently for special instruction or the one who works at the back of the room with an aide.

**E. PLAN FOR GOOD LISTENING**

Consider each of the difficult listening situations the child is likely to encounter. Some likely scenarios include:

- Group work in the classroom
- Peer communication in the cafeteria
- Functioning on the playground
- Accessing auditory information in the auditorium
- Communication on the school bus
- Understanding information presented on the public address system

Work out solutions and implement the necessary intervention(s). If solutions are challenging seek consultant assistance to provide answers. Possible actions might include:

- Use FM systems
- Control background noise
- Improve acoustics
- Provide printed materials

- Build independence and self advocacy skills in the child
- Practice social language scripts (e.g., "Teach Me Language")
- Review task-specific vocabulary that may be unfamiliar (e.g., "Preppin' for Fairy Tales" by Sindrey.)

**II. Important Considerations**

**1. WHERE SHOULD THE CHILD RECEIVE INDIVIDUAL INSTRUCTION?**

Recently, there has been a shift to provide special education services to children in their regular classrooms rather than taking them to separate, small rooms. This trend, while appropriate for students with other disabilities, is problematic for children with hearing loss and particularly children with cochlear implants who have difficulty coping with background noise. When the goal is to build listening skills to their maximum potential, a quiet setting free from distractions is essential. Listening for fine auditory discriminations at the phoneme level, attending to syntactic structures of English, and discussing the concepts and content required for comprehension of an academic topic are very difficult tasks for a child with a cochlear implant. These tasks become almost impossible when a classroom of talkative children is engaged in learning activities around the child. Do select an appropriately quiet setting for individual instruction and maximize the learning time.

**2. MAKING THE CHILD'S FIRST DAY A SUCCESS**

**Before the first day:**

- Organize a visit by the child to the classroom prior to the first day so the child can meet his or her teacher and tour the school.
- Present workshops to inform teachers and students about hearing loss, cochlear implants, and the use of FM equipment.
- Plan for the bus ride. If the child is riding a large school bus for the first time, some support might be helpful.
- Connect the child socially. Meeting a classroom buddy or neighborhood friend in advance of the first day is a wonderful help.

**On the first day:**

- Explain the structure of the day to the student and then encourage the child to relax and have a great time.
- Send a note home to the parents telling them about the day.

### 3. ENSURING CONTINUED SUCCESS

The child with a cochlear implant will need ongoing support. Even children whose language and communication skills are age appropriate should be provided with support to ensure that they develop or maintain a positive self-image, independence, and appropriate social skills. Parents are vital partners with the school in this endeavor.

Children with implants who are still acquiring age appropriate language will need much more support. The school staff must be ready to support the ongoing development of auditory, speech, and language skills and to provide the necessary academic tutoring. A developmental approach ensures a transition to independent learning in the future.

- Provide audiological evaluation services.
- Deliver intensive programming in audition and speech and language development.
- Monitor speech processor functioning.
- Assess the need for a speech processor mapping.
- Access technical support and supplies for speech processor, amplification equipment, and FM breakdowns.
- Set up communication with parents to handle speech processor issues speedily.
- Ensure backup loaner equipment is available to keep the child in the listening mode.
- Plan for good listening—the child with a cochlear implant, unless he or she has amplification in the other ear, is a unilateral listener. It should be remembered that when sound is only processed on one side that localization skills and the ability to understand speech in background noise are severely compromised.

## III. A Skilled School Team Ensures Success

### Specialist support is a must and should include:

- A teacher of the hearing impaired
- A speech and language pathologist
- An educational audiologist
- A counselor or social worker

### Team members must be able to:

- Provide training to regular education teachers.
- Provide support and consultation to the classroom teacher.

With intensive planning and preparation and an enthusiastic team of parents and professionals, the child with a cochlear implant can experience a positive and successful school experience that prepares him or her for full access to the mainstream of life.

## Parental Support for Child's Listening in School

Give yourself one point for each yes answer. A score of five indicates that you are prepared to support your child's listening in school.	Yes	No
My child's school team knows how to contact me during the day if my child's speech processor breaks down.		
My child has a spare cord and coil for the speech processor in a sturdy container in his or her school bag.		
There are batteries in school for the speech processor.		
My child tells me when he or she cannot hear and knows who to tell at school.		
My child's backup processor always has the most current map(s) loaded on it.		

## RESOURCES

1. ANSI S12.60-2002 American National Standards Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools.
2. Components of a Quality Auditory/Oral Program (1998). AGBell Public School Caucus.
3. Estabrooks W. Ed. *Cochlear Implants for Kids*. 1998; Washington, DC: AG Bell.
4. Freeman S, Dake L. *Teach Me Language*. 1997; SKF Books: 20641 46th Avenue, Langley, BC Canada V3A 3H8.
5. Nevins ME, Chute P. *Children with Cochlear Implants in Educational Settings*. 1996; Washington, DC: AG Bell.
6. Sindrey D. "Preppin' for Fairy Tales." 1997; London, Ontario: WordPlay Pubs. 519-472-7762. [www.execulink.com/~wordplay](http://www.execulink.com/~wordplay)
7. [www.agbell.org](http://www.agbell.org): Alexander Graham Bell Association for the Deaf and Hard of Hearing (AG Bell). This website provides several tools for advocacy, such as Parent Advocacy Training (PAT) and Children's Legal Advocacy Program (CLAP), along with other resources.
8. [www.bionicear.com](http://www.bionicear.com)
9. [www.causeonline.org](http://www.causeonline.org): Citizens Alliance to Uphold Special Education. This website provides collaborative information to families and professionals of children with special needs.
10. [www.copaa.net](http://www.copaa.net): The Council of Parent Attorneys and Advocates, Inc. (COPAA). This website includes information on how to secure high quality educational services for children with disabilities.
11. [www.fape.org](http://www.fape.org): Families and Advocates Partnership for Education (FAPE). This website links families, advocates, and self-advocates to information about the Individuals with Disabilities Education Act (IDEA).
12. [www.listen-up.org](http://www.listen-up.org): Website includes a section on advocacy/your rights along with a listserv to advocate for the rights of children who are deaf/hard of hearing.
13. [www.nichcy.org](http://www.nichcy.org): National Information Center for Children with Disabilities, funded by the Office of Special Education Programs (OSEP) at the US Department of Education. This website helps connect parents with the resources needed to better serve infants, toddlers, children, and youth who have disabilities. It provides up-to-date information on recent IDEA amendments.
14. [www.reedmartin.com](http://www.reedmartin.com): This website provides parents and school personnel tools for advocacy for children with disabilities.
15. [www.wrightslaw.com](http://www.wrightslaw.com): This website is for parents, advocates, educators, and attorneys inquiring about special education law and advocacy for children with disabilities.

## REFERENCES

1. Geers AE, Nicholas JG, Sedey AL. Language Skills of Children with Early Cochlear Implantation. *Ear and Hearing*. 2003;24 (1 Suppl):46S-58S.
2. Hammes DM, Novak MA, Rotz LA, Willis M, Edmondson DM, Thomas JF. Early identification and cochlear implantation: critical factors for spoken language development. *Annals of Otolaryngology, Rhinology & Laryngology Supplement*. 2002;189:74-8.
3. Moog JS. Changing Expectations for Children with Cochlear Implants. *Annals of Otolaryngology, Rhinology, & Laryngology-Supplement*. 2002;189:138-42.
4. Rhoades EA, Chisolm TH. Global Language Progress with an Auditory-Verbal Approach for Children Who are Deaf or Hard of Hearing. *The Volta Review*. 102(1): 5-25.