



Habilitation Outreach for
Professionals in Education

HOPE Note

The Experienced Cochlear Implant User: School Aged/Teenager



*Ashley Garber, M.S. and Mary Ellen Nevins, Ed.D.
HOPE Specialists*

As the recommended age of implantation lowered over the years, attention to the very youngest recipients increased commensurately. It must not be overlooked however, that there continues to be a large population of cochlear implant recipients in their school aged or teenaged years. Because the hearing profiles of this group are varied, so too are the services that they require. This HOPE Note addresses recommendations for this growing group.

A Varied Group

FDA approval for children to receive cochlear implants at 12 months of age was granted in 2002. Therefore, the current population of elementary and teenaged cochlear implant recipients were implanted no sooner than their 2nd birthdays and sometimes later. Though now considered to be experienced listeners, many in this group had delayed access to spoken language and currently display varying levels of language proficiency. With many years of auditory skill development under their belts, however, rehabilitation focus can move toward the integration of content material into listening exercises. Specific auditory practice can target refining discrimination skills in context, listening in noise, and improving self advocacy skills.

Integrating Content Material with Listening Practice

Of particular importance for elementary and teen-aged cochlear implant users is the integration of content material into individualized listening practice and vice versa. As academic requirements intensify with each school year, the doubling of efforts on the part of the teacher and speech language pathologist will best serve the student by providing opportunities for pre-teaching vocabulary and themes, reinforcing content material, and expanding auditory goals within more natural contexts. Professionals must remain vigilant that auditory and language skills continue to develop such that acquisition of new content information is facilitated, but at the same time be sensitive to the motivation and interests of the adolescent population.

Refining Discrimination Skills

For many children with years of cochlear implant experience, auditory difficulties may be limited to “mishearing” novel words in natural context. These discrimination mistakes may be targeted for specific auditory practice in a structured environment. For example, practice in contrasting sound

pairs that prove particularly difficult for the child (e.g. consonants differing by place cues as in “crane” vs. “train”) may be helpful. Perhaps more importantly, taking this opportunity to illustrate the sound contrasts within the context of the error will allow for meaningful comparisons of the perceived word and the intended word. For this approach to be most effective, all service providers and classroom teachers should use the auditory feedback loop as a tool for listening practice.

Listening in Noise

Most school aged children and teenagers with cochlear implants are participating in mainstream classrooms for some or all of the school day and are therefore frequently challenged by noisy environments. Individual rehabilitation sessions provide an ideal format for targeting the skill of listening in noise to prepare for success in the classroom. In pull-out therapy, noise is introduced in a controlled way and the user moves deliberately through a hierarchy of skills beginning with listening to highly familiar material against white noise and ending with listening to novel material in multi-speaker babble. Therapists assist students in developing compensation strategies that allow for improved listening skills in less than ideal conditions. Even greater benefit can be realized when the therapist assists the student in maximizing use of SmartSound™ input processing options that can be added to a student's sound processor to improve performance. Practice with taped materials and computer generated sound sources can also be introduced as a means of improving functional listening skills for the classroom.

Improving Self Advocacy Skills

While improving a child's ability to listen in noise is a practical goal, facilitating the development of self-advocacy skills to combat difficult listening scenarios is critical. Identification and analysis of these difficult listening scenarios sets the stage for selection of appropriate strategies. This discussion and the practice that follows may be best approached first in the individual or small group setting; however, rapid transfer of skills to the classroom environment will serve the child well. In addition to learning to alert others to repeat or rephrase, students can begin to recognize other possibilities for accommodation such as learning to effectively use their FM

microphones in group situations, asking for captioning or note-taking services, confirming assignments and positioning themselves well for assemblies and presentations. Armed with these tools and strategies, the experienced school-aged or teenaged cochlear implant recipient will be ready to face the auditory challenges of school.

Related Resources

Cochlear Americas (2004) *Hear We Go! A Rehabilitation Resource for Teenagers* (CD format). Englewood, CO. To order these materials visit the HOPE, Education and Rehab section of the Online Store: www.cochlear.com/Shop

Nevins, ME and Garber, AG (2006) *Teens: A Whole 'Nother World*. HOPE Online Library. Available at www.cochlear.com/HOPE

Tye-Murray, N. (1997) *Communication Training for Older Teenagers and Adults: Listening, Speechreading and Using Conversational Strategies*. Washington, DC: AG Bell Publications.

Cochlear Americas

400 Inverness Parkway
Suite 400
Englewood, CO 80112
I 800 523 5798

www.cochlear.com/HOPE