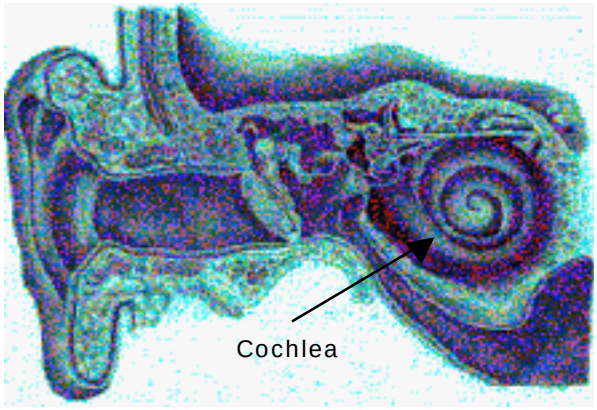
Serving Deaf Students Who Have

Cochlear Implants

Overview

More and more deaf people, both children and adults, are receiving cochlear implants (CIs) today than ever before. Given this trend, it is fair to assume a greater number of deaf students will be arriving at postsecondary institutions with cochlear implants than at any other time previously. This makes it important for the Disability Support Services staff to have at least a rudimentary understanding of cochlear implants and their impact.

Cochlear implants are electronic devices which are implanted in the cochlea and designed to provide



useful hearing and improved communication ability to individuals who have profound hearing losses and are unable to achieve speech understanding with hearing aids. They do not restore hearing to "normal."

How cochlear implants work

Cochlear implants are designed to bypass cochlear hair cells that are non-functional and provide direct stimulation to the auditory nerve.

Every CI is comprised of the following:

1. electrode array(s)
2. microphone
3. signal processor
4. signal coupler (transmitter and receiver)

Two different models are shown:

A: behind the ear processor

B: body processor

A – Behind the Ear Processor

B – Body Processor

How does a CI produce hearing?

- The microphone picks up sounds and sends them to the processor.
- The processor then selects and codes sounds that produce useful speech, music, etc.
- From the processor, sounds are transmitted through the skin to the receiver/stimulator via the magnetic headset.
- The codes are then converted to electric signals that activate the electrode arrays.
- The electrodes then stimulate the auditory nerve. The brain recognizes the electric signals as sounds.

Expectations
Cochlear implants will not restore hearing to "normal." When an individual is considered for a cochlear implant, the audiologist and otorhynolaryngologist stress the fact that the implant will not result in hearing that is the same as biologic hearing. Benefits derived vary greatly among individuals. Some CI users only gain knowledge of environmental sound while others gain ability to use telephone and hear music. It is important that recipients and the people surrounding them understand that cochlear implants do not enable a deaf person to function as a hearing person!

The cochlear implant controversy
Within the Deaf Community, specifically among individuals who are born deaf and use American Sign Language as their preferred mode of communication, there exists a high level of controversy and resistance to cochlear implants. Their concern lies within their cultural pride and the belief that deafness is not something to be cured.

It should be understood, however, that the Deaf Community generally understands and supports the choice to receive a cochlear implant when the individual is late-deafened, that is, having become deaf as an adult.

What are the impacts in postsecondary education?
Postsecondary education students, regardless of the benefit they derive from their cochlear implant, will still require the use of support services. Some students will request either sign language or oral interpreters. Assistive listening devices (ALDs) are frequently requested by these students. Still others will ask for real-time captioning. It can be assumed that most students with cochlear implants will request notetaking services.

Another type of support these students may need is counseling to deal with issues that are a result of either having a cochlear implant or being late-deafened, both of which make the individual stand out from his/her hearing and culturally deaf peers. It may be beneficial to identify other people in the community, either the institution or the locale, who have cochlear implants and/or became deaf beyond the age of 16. These people are valuable resources, who should not be overlooked nor underestimated.

Other tips
DO face the person when talking.
DO keep eye contact when speaking.
DO speak clearly.
DO repeat a sentence exactly. If still not understood, then choose alternative phrases to express your thoughts.
DO monitor environmental noise.
DO monitor environmental light.

DON'T turn away from the deaf person's view when speaking.
DON'T over-exaggerate your speech.
DON'T attempt to talk over loud environmental noise: wait for the noise to stop or move to a quieter location.
DON'T shout when speaking.
DON'T speak with objects in or in front of your mouth.

** The Postsecondary Education Programs Network, a collaboration including the Northeast Technical Assistance Center and the Midwest Center for Postsecondary Outreach, does not endorse any specific model of cochlear implant.*

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