MCICE
Maryland Cochlear Implant Center of Excellence

November 2019

Sound Advice

"come hear about us"

Welcome to "Sound Advice," a free newsletter distributed by the **Maryland Cochlear Implant Center of Excellence** (MCICE, pronounced "em-cise"). We hope to provide cochlear implant recipients and their families with the most up-to-date news about research on cochlear implants, new features on the market, and how to get the greatest benefit from an implant. We are a group of researchers, educators, surgeons, and clinical service providers located at the University of Maryland - College Park, University of Maryland-Baltimore School of Medicine, and the University of Maryland Medical Center. Our goal is to provide the nation with evidence-based, unbiased information that can help you decide if a cochlear implant is a good choice for you or a loved one, and to help keep you up-to-date with the state of knowledge in the field. Please help us meet this mission by passing this newsletter along to those who might be interested!

Ask an Expert

"I am 53 years old and I lost all hearing in my left ear from a virus last year. The loss is so severe that a regular hearing aid doesn't help. This has been making it difficult for me to perform my job as I used to because I can't hear people on my left side in meetings, and I can't understand anybody in a crowded noisy room. I was going to try a bone anchored hearing device like a Baha, but I heard that a cochlear implant might now be a better option.

What's the difference between those two? Which one is better for me? How much will they help? Will insurance pay for surgery?"

- Douglas Forloines (Tampa, Florida)

Hi Douglas,

These two devices are common options for single-sided deafness such as yours, but they function very differently. A bone-anchored device (BAHA) transmits the acoustic information from the poorer ear to the inner ear on the opposite side through vibrations of the skull, called bone-conduction. While the vibrations are not directly felt, these devices allow for the awareness of sound from the poorer side, by perceiving the sound in the better ear only.

A cochlear implant (CI) is a device that goes into the inner ear with hearing loss. The CI uses electrical signals to directly stimulate the parts of the brain that convey sound and restore the sensation of sound and hearing to your deaf ear. In the best cases, it will improve your ability to localize sound sources and understand speech in noisy situations because the brain needs sound input from both ears to best function in these tasks. These abilities are not achieved with bone-conduction devices as only one ear is able to hear incoming signals. With all of the benefits, it is also important to consider that the signal from cochlear implants does not sound completely natural.

There has been a recent promising clinical trial (Buss et al., 2018) and the FDA has just approved CIs for single-sided deafness cases like yours. While insurance rules vary from state to state, there is an increasing chance that insurance will cover the cost. You should ask your audiologist and otolaryngologist what the rules are in your area and undergo further evaluation to see if you are a candidate.

- Matt Goupell, Ph.D.

Do you have a question for our experts?
Send it to askmcice@umd.edu

We're All Ears!

This summer, clinical faculty and graduate clinicians at the University of Maryland - College Park Hearing and Speech Department provided their services for the MCICE Summer Intensive Program. The two-week experience was an immersive opportunity for the participants, called "*Listeners*", aged 3 to 6, to improve their speech and auditory skills with cochlear implants. The *Listeners* were provided with a language-rich environment as well as aural rehabilitation and speech therapy to monitor and reinforce their communication skills. It was a fantastic experience, not only for the *Listeners*, but the speech and audiology graduate clinicians that collaborated to support them in therapy sessions and classroom activities. Useful techniques and initiatives used in the classroom were communicated with the parents so that learning could continue at home. We can't wait to create new experiences next summer!

What's New?

Developments in cochlear implant technology

MRI with your CI?

As of this fall, all three of the cochlear implant manufacturers (Advanced Bionics, Cochlear, and Med-El) have implants that are FDA approved as magnetic resonance imaging (MRI) compatible (up to 3.0 Tesla) – *without surgery*. This means that patients no longer have to make the decision about which CI system is best for them based on concerns about future imaging needs.

An Exciting Initiative!

A *Cochlear Implant Emphasis Program* is in development at the University of Maryland for graduate students in audiology and speech-language pathology. The students in the program will receive specialized training to provide services [device programming and assessment, (re)habilitation, and auditory training] to individuals with cochlear implants and their family. Associate Clinical Professor, Nicole Nguyen, Au.D., CISC, a certified clinical specialist in cochlear implants, will spearhead the program and hopes to start implementing coursework in the upcoming school year. If you know a student interested in becoming a clinical specialist in cochlear implants, let them know that they can apply to one of our programs!

MCICE Supports the Walk4Hearing!

Faculty and students attended the Hearing Loss Association of America's (HLAA) *Walk4Hearing* at the National Harbor on October 19th. We had a great time meeting individuals with hearing loss and their families while raising money for this important cause!
You can find out more about HLAA or find a chapter near you here.

Contact Us

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This newsletter contains information for the benefit of the cochlear implant community. It is not intended as an endorsement of any manufacturer or medical device. If you do not wish to receive this newsletter, please contact mcice@umd.edu.

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