



Your Trusted Hearing  
Healthcare Professionals

# INNOVATIVE PERCEPTIONS

A QUARTERLY NEWSLETTER FOR HEARING AWARENESS IN THE GREATER BOSTON AREA

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## The Cochlea:

The organ of hearing in your inner ear. It produces nerve impulses in response to sound vibrations, allowing you to hear.

## Cool Cochlea

### Facts:

- The cochlea has over 20,000 sensory hair cells;
- The cochlea is Greek for snail;
- Its about the size of a pea;
- If you unwound the cochlea it would be about 31 mm (1.5 inches) long;
- It's the first organ to develop fully, by 4.5 months.

## When Hearing Aids Aren't Enough

Hearing aids have certainly come a long way in the 18 years since I have been doing this and in the 40 some years since my brother was first fit with amplification. But what happens when hearing aids are no longer providing the benefit they once were? When you are straining to hear and not able to understand what is being said, even with the most powerful hearing aids, a cochlear implant may be the next step in your hearing journey. That is why we are very excited to tell you about our new collaboration with



Cochlear America, the leading cochlear implant manufacturer. As audiologists, our job is to help our patients hear their best throughout their lives and this collaboration will enable us to provide continual services for all your hearing needs. What is a cochlear implant? Well, first, it is not just for those who are deaf or who cannot hear. It helps those who have

moderate to profound hearing losses improve their hearing, their clarity, and understanding of speech. With a hearing aid, we must still rely on damaged sensory cells to send the sound to the brain. A cochlear implant involves surgically placing electrodes into our inner ear, thus replacing those damaged sensory cells. These

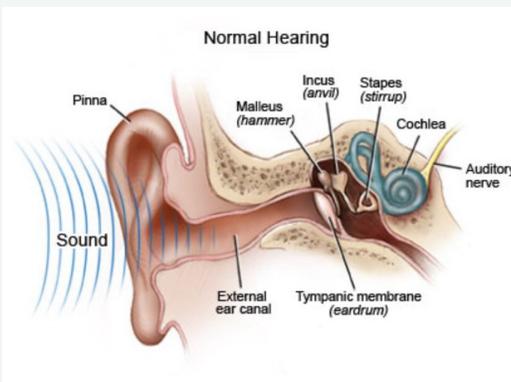
electrodes provide a direct connection to our hearing nerve sending a much clearer signal to our brain, improving the ability to understand sound. If you feel that even with your hearing aids you are constantly struggling to hear, you owe it to yourself to find out all of your options. Give us a call and we can schedule a cochlear implant evaluation

at our office. After the testing, if you meet the criteria, we provide you with all the information needed to make an informed decision as to whether a cochlear implant would be an option for you. We are then able to work with you throughout your journey to better hearing. If you currently have a cochlear implant we can provide all services, including programming and upgrading. Most of these services are covered by insurance. Call us today!

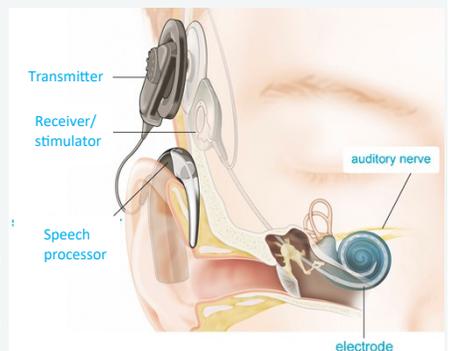
## How does a Cochlear Implant work?

First, we need to know how hearing works:

- 1) Sound travels down the ear canal to the eardrum;
- 2) The eardrum vibrates the tiny bones in the middle ear;
- 3) These vibrations are transmitted to the inner ear (cochlea);
- 4) The sensory cells in the cochlea pick up the vibrations and transmit the signals to the hearing nerve and then up to the brain.



When those sensory hair cells are too damaged to send adequate input to the hearing nerve, a small electrode can be surgically implanted into the cochlea taking the place of the damaged sensory cells, so that your brain can access a cleaner, clearer input. There is a speech processor (this looks similar to a hearing aid) that picks up sound from the outside and a magnet placed behind your ear transfers the outside sounds down to the electrodes in the cochlea. These electrodes act as the sensory cells



and send the signal to the brain. The surgery is a day surgery and there is typically very little recovery time. Also, please keep in mind that age is definitely not a limiting factor. If you are not too old to hear and enjoy conversations, you are not too old for a cochlear implant.



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## **AUDIOLOGY AND HEARING SOLUTIONS, INC**

*Dear Friends,*

*Happy Fall! It is always my favorite time of year, but this year it is even more special to me. As some of you know, my oldest brother, Travis, lost his hearing when he was a baby. Now, this was quite a few years ago and times were certainly not the same as far as hearing healthcare services. At that time, little was known about hearing loss—especially in children. My parents were told Travis would never learn to speak or integrate into society. Thankfully, my parents didn't listen and worked tirelessly to ensure that Travis received every service possible to provide him the best chance in a hearing world. And today, he speaks as well (and often times much more!) than I do. However, this past spring, the hearing in his right ear dropped significantly and it got me thinking, what more could I do to help. This newsletter explains the next step in his (and my) hearing healthcare journey. We are currently going through the steps to see if he will be able to get a cochlear implant. I have done the testing and we are scheduled to see the otologist (surgeon) in November. Follow us on Facebook to see how it turns out!*

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