

# Hear Here

Oregon Health & Science University  
Department of Otolaryngology/Head and Neck Surgery  
**Audiology Service**

VOLUME 1 • WINTER 2005



Dear Friend,

My name is Sean McMenemy and I am the Chief of the Neurotology/Skull Base Service at OHSU. For the past twelve years, I have helped create a comprehensive cochlear implant program here. Thanks to the efforts of many, the OHSU Cochlear Implant Center opened its doors in 1983. This is also the year in which

cochlear implants were approved as the only treatment for profound sensorineural deafness. I'm excited to provide you this much-requested newsletter, and I hope you share it with your family and friends.

I'm writing today to ask for your support. Our center currently serves as a valued resource for patients, providers and researchers here in Oregon and throughout the Northwest. Staff members regularly take part in clinical trials and serve as consultants to other clinics and regional educational programs, freely sharing information about the latest treatments and care available to our cochlear implant patients.

To continue its important work and to offer better service to our patients, the center needs funding for: advanced and specialized training of audiologists and speech pathologists who work specifically with cochlear implant patients; public education about cochlear implants and hearing health; training for parents, teachers, and caregivers of cochlear implant recipients; and resources for cochlear implant related research.

With your gift, the OHSU Cochlear Implant Center can continue to provide cochlear implant patients and their families with the care they need.

Thank you for considering a gift today and for sharing the news of our center.

Sincerely,

**Sean O. McMenemy, M.D., F.A.C.S.**  
Chief, Division of Otology  
Director, Cochlear Implant Program

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# OHSU

## A PILOT WITH A COCHLEAR IMPLANT, NOT YOUR AVERAGE 84 YEAR-OLD

**Nicole C. Baumer, B.A.**  
**Administrative Coordinator**

John Williford is certainly not your average 84 year-old. He still flies airplanes and spends much of his time traveling the world. In fact, he leads a more active life today than he did 30 years ago, thanks to the cochlear implant he received at OHSU in January 2003.

John grew up in Los Angeles, Calif., but spent much of his childhood away from his home in LA. At 16, he started working in the shipping industry. For 30 years, John worked as a shipping engineer, spending the majority of his time working in the ship's engine room. Unfortunately, hearing protection was far less advanced and was not mandated as it is today. As a result, much of John's hearing loss is believed to be the result of the noise his ears endured on the job.



**JOHN WILLIFORD**

John didn't report noticing a pronounced change in his hearing until he was nearly 60. Even then, it was still years before he saw a doctor and tried hearing aids. For several years after that, he wore hearing aids, upgrading to stronger and stronger versions until he realized that he was receiving all the benefit he could hope to expect from a hearing aid. It wasn't until John went to an ophthalmology appointment to see Dr. John Samples at OHSU's Casey Eye Institute that he ever considered a cochlear implant.

At Dr. Samples' suggestion, John contacted the OHSU Cochlear Implant Center to see whether he was a candidate for a cochlear implant. Within

three months, he was evaluated, found to be a candidate and underwent cochlear implant surgery. John never looked back after he started the cochlear implant process. His advice to other people? "Don't be doubtful, just do it!"

As a result of his cochlear implant, both John and his wife, Irene, report their quality of life has greatly improved. "Communication has become so much easier. He can tell when I am yelling at him now," Irene laughs. As for John, he now leads a more independent life. His days as a pilot are no longer limited because of his hearing loss. Because he now can hear the calls on the radio, he is able to fly solo again. Also, he no longer avoids social situations, such as meetings, for fear of not being able to hear.

John sums up his experience with his cochlear implant in one word—"Amazing!"

**For more information about cochlear implants or to make an appointment, please call the cochlear implant program at OHSU at 503 494-6258.**

## T COILS AND FM SYSTEMS, THE LATEST IN HEARING AID AND COCHLEAR IMPLANT TECHNOLOGY

**Donald S. Plapinger, Ed.D., C.C.C.A.**  
**Director, Audiology Service**

Like all aspects of life, technology is changing the way we live. For individuals with cochlear implants, it is no different. As one who has been in the field of audiology for 25 years, just the thought of a cochlear implant is a wonder. While the cochlear implant provides significant benefit, there are still situations where the benefit is limited.

One of the most difficult challenges to deal with is background noise. When I program a CI patient in my office, the most common statement is: "This is not like the 'real world.'" This is true. The programming rooms at OHSU are very quiet, while the real world is very noisy. Noise is everywhere. At home we compete with the TV, radio, CD player, and the banter of children, spouses and pets.

One of the best ways to deal with this issue is to eliminate the noise. This can be done through high-tech, mid-tech and low-tech strategies. Low-tech includes the extended microphones offered by each of the CI manufacturers. The microphone plugs into the accessories jack of a speech processor and allows the patient to focus on the speaker and block out the background noise. This

works best in situations where a person is close to the speaker, such as in a car or a restaurant. Unfortunately, people are limited by the length of the cord that runs from the microphone to the speech processor.

The next level, mid-tech, is the use of the T coil. T stands for telephone coil, as it initiated with hearing aids and allows a hearing aid user to talk on the phone. Now, its use extends far beyond the phone. The T coil works off a magnetic loop. Presently, many conference rooms, theaters and other public buildings are “looped” with an induction system. This system will communicate with your T coil. While all of the manufacturers have T coil options, for some patients it is an additional accessory.

The highest level of technology is the FM system. The term FM is from the Federal Communications Commission, which has allocated several frequency bands to be used by individuals with hearing loss. The FM system has two parts, a

transmitter, which is worn by the speaker or placed in an area where we want to hear. The implant user has a receiver. The receiver takes in the sound from the transmitter and transfers it to the speech processor. The receiver can use a loop and the T coil, or the FM system can plug directly into the processor. The advantage of the FM system is that there are no cords, and this system has a range of more than 100 feet. This system can be set up so that the implant user hears only what is coming from the FM system or it can be set to combine the FM and the external microphone, so a person can hear other conversations as well. While this technology provides the most flexibility and sound quality, it also is the most expensive.

**If you would like more information on assistive listening devices, you may wish to access the website of your respective cochlear implant company, or contact the Cochlear Implant Center at OHSU and we would be happy to review these options with you.**



### **MANAGING HEARING LOSS IN RESTAURANTS, NOISY ENVIRONMENTS**

**Amy L. Johnson, M.A., C.C.C.A.**  
**Staff Audiologist**

Audiologists and physicians frequently see patients who say that although they can hear, they cannot understand people in restaurants or noisy environments—this is tough for many people to do, even if they have little or no hearing loss.

There are two primary reasons people at any age may have difficulty hearing speech in noisy surroundings. Unwanted low-pitched sounds cover the higher-pitched consonant sounds that are critical to understanding speech, and most people who have hearing loss have it in the higher pitches. Higher-pitched sounds containing the consonants listeners need to hear are barely heard because of the dominating low-pitched noise.

It is common for most people to experience these hearing problems. Audiologists and physicians are most concerned with how frequently, and to what extent, inability to hear in noise impacts the quality of a person’s life.

The following tips may help you find a quiet spot and hear better in a restaurant:

**Lower your voice during conversations. Some people respond better to hearing speech in noise by lowering their voices.**

**Reduce the number of people who are participating in a conversation.**

**Do not sit next to the kitchen.**

**Do not sit next to the waiter station.**

**Avoid tables near the bar.**

**Think soft (Select restaurants with plush environments, curtains, padded seating, carpet and tablecloths).**

**Go where there is soft or no music.**

**Go to a restaurant with fewer tables.**

**Avoid popular eating times.**

If these tips don’t help, have an audiologist check your hearing. Audiologists diagnose hearing loss and make recommendations to maximize your hearing ability.

*Excerpted from Advance for Audiologists, 2004.*

## 2004: THE YEAR IN REVIEW

Much has happened in the Audiology Service this year.

### Here are some highlights:

**The Cochlear Implant Program** hosted its third annual Cochlear Implant Patient Picnic in August at Blue Lake Park. Despite the weather, there was a great turnout. Plans are in the works for a picnic in the summer of 2005.

**The Audiology Service, in conjunction with the Otology Service,** now offers patients a complete Baha (bone-anchored hearing aid) Service, including audiology evaluation, medical consult, follow-up and surgery.

**Sean McMenomey, M.D., and the audiology team** received training from the House Ear Institute and Cochlear Corporation to equip our program to be able to offer qualifying patients auditory brainstem implant services.

**The cochlear implant audiology team** was chosen as one of a select group of cochlear implant centers to take part in Cochlear Corporation's streamlined study, which investigated programming techniques used with adult CI users. Cochlear Corporation also invited our CI team to take part in its latest Systems 4 clinic trial, the start of which is yet to be determined.

**Sean McMenomey, M.D.** was among an elite group of otologists to be trained and participate in the implantation of Cochlear Corporation's latest implants: the Advance and the Advance II.

**The Hearing Aid Program** hosted five informational seminars throughout the greater Portland area for current and prospective hearing aid users. Attendance was high and plans are in the works for similar seminars in 2005.

**The Audiology Service** is pleased to welcome two new fellows. Bethany Wilkins, from Western Washington University, and Jessica Magrow, from the University of Memphis, began their fellowship training in September.

## AS 2004 IS COMING TO AN END, WE WISH EVERYONE A VERY HAPPY HOLIDAY!

**HEAR HERE** is produced and published by The Audiology Service in the Department of Otolaryngology/Head & Neck Surgery at Oregon Health and Science University, Portland, OR.

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**EDITOR** Nicole Baumer, **GRAPHIC DESIGNER** Chris Baunach

OHSU includes the schools of dentistry, medicine, nursing, and science and engineering; OHSU Hospital and Doernbecher Children's Hospital; numerous primary care and specialty clinics; multiple research institutes; and several outreach and community service units.

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