

Wake Chapter Newsletter

Dec 2024

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Upcoming Meetings and Events

Get 2025 Off to a Great Start

Start 2025 in fun fashion by attending an HLAA Wake Chapter lunch social. The gathering will take place on Saturday, January 11, from noon to 1:30 p.m. at Kirk of Kildaire Presbyterian Church in Cary. The address is 200 High Meadow Dr.

Bring friends and family. This is a great opportunity to meet and socialize with others with hearing loss while enjoying a sandwich, salad, chips, desserts and a beverage. As part of the socializing, we'll provide everyone with a chance to share a New Year's resolution or a tip about better coping with hearing loss in 2025. The photos below are from last January's Wake Chapter lunch social.

RSVP to Joyce Adler (jmhlanc@gmail.com) by January 7.





Upcoming Meetings and Events (Continued)

Program Meeting in February

Countless people who could benefit from hearing screenings or hearing aids do not take advantage of them, and stigma is often listed as a reason why.

Stigma, therefore, is a significant healthcare issue, and it will be the topic for the HLAA Wake Chapter hybrid meeting on Thursday, February 27.

Our speaker will be Jessica West, Ph.D., M.P.H., a medical sociologist who is currently a faculty member in the Duke University School of Medicine in the Department of Head and Neck Surgery and Communication Sciences.

"I am particularly interested in the stigma associated with hearing loss and hearing devices and how to reduce it," says Jessie. "My interest in this research is personal – I have a congenital, bilateral, moderately severe, sensorineural hearing loss and have been wearing hearing aids since the age of 17."



During her presentation, Jessie will help us understand what is meant by "stigma" and describe some common – and not-so-common – stigmas associated with hearing loss and hearing devices. She also will discuss her research and a grant proposal she is developing.

The meeting will take place at Kirk of Kildaire Presbyterian Church in Cary and begin at 7 p.m. It also will be available remotely via Zoom. The Zoom link will be distributed in an email a few days prior to the meeting. For participants in the church's Fellowship Hall, beverages and snacks will be available during and after the presentation. The hall is equipped with a hearing loop, which will provide telecoil-equipped hearing aid or cochlear implant users with an enhanced listening experience. Captions will be provided for both the in-person and Zoom audiences.

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Indianapolis Hosting HLAA 2025 Convention

Start your engine and get revved up to attend HLAA's 40th annual convention, June 11-14, 2025, in Indianapolis, IN – host of the famous Indy 500 automobile race.



The convention brings together hundreds of people with hearing loss from around the U.S. and beyond to learn, discover and connect. Check out the latest technology and hear from health and industry experts during a series of empowering events designed to help you live your best life with hearing loss.

Online registration will be available starting in January 2025, with "early bird" rates through March 14. For more convention details, visit:

https://www.hearingloss.org/get.../hlaa-2025-convention

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Award Increased for 2025 Scholarship Program

The Hearing Loss Association of America (HLAA) Wake Chapter scholarship program for high school seniors with hearing loss will feature an increased award for 2025.

Since the program began in 2020, the one-time scholarship award has been \$500. For 2025, the chapter will increase the award to \$750. The increase is made possible by generous donor support of the Wake Chapter team in the North Carolina Walk4Hearing, a hearing health awareness and fundraising event held annually in October.

Applications for the 2025 Wake Chapter scholarship will be available from the HLAA Wake Chapter website (https://www.nchearingloss.org/wake) in late December. Submissions will be accepted from January through March, and recipients will be announced in May. The chapter has awarded scholarships to two to four applicants annually.

Applicants must reside in Wake County and be seeking acceptance at an accredited university, college, community college or trade school. They also must have a moderate hearing loss or more and wear a hearing aid or cochlear implant. Financial need is not a consideration. The \$750 award will be sent to the recipient when s/he begins classes.

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Memorable 2024 Walk Season

The Hearing Loss Association of America wrapped up the 2024 Walk4Hearing season in Mesa, AZ in early November. Over the course of 20 events around the country, the Walk4Hearing community raised nearly a million dollars with 596 teams and more than 5,800 participants. Pictured here are children's activities at the North Carolina Walk4Hearing, held in Cary in October. The NC Walk raised \$36,152, including \$4,155 by the Wake Chapter team. Thank you for making Walk4Hearing 2024 a year to remember!



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State Council Seeking Member with Hearing Loss

The North Carolina Council for the Deaf and Hard of Hearing currently has an opening for a consumer with hearing loss.

The council advises the Department of Health and Human Services and the Department of Public Instruction on matters pertaining to services provided to deaf and hard of hearing individuals and their families.

At full strength, the council includes 28 members, including three hard of hearing consumers and a representative from the Hearing Loss Association of America. The current HLAA representative is Wake Chapter member Steve Latus.

Visit the <u>council's webpage</u> or contact Latus at <u>slatus@comcast.net</u> to learn more about the council and the membership application process.

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Director of State DSDHH Retiring

Jan Withers, Director of the North Carolina Division of Services for the Deaf and Hard of Hearing (DSDHH) for the last 19 years, will retire February 1, 2025.

In announcing her retirement, Jan cited several DSDHH accomplishments of which "I am genuinely proud." These included increasing awareness and understanding about the Deaf, Hard of Hearing, and DeafBlind community in North Carolina, advocating for improved communication access in healthcare, courts, prisons, social services and other areas of society, changing systems and building the capacity of agencies and organizations to ensure communication equity, and responding swiftly and effectively to disasters like Hurricane Helene.



Julie Bishop, President of the Hearing Loss Association of America (HLAA) North Carolina State Association and a member of the HLAA Wake Chapter board, characterized Jan as an outstanding advocate and public servant.

"I had the privilege of working with her while serving on the NC Council for the Deaf and Hard of Hearing," said Julie. "I admired her unwavering commitment to the Council and the citizens it serves. She also did it with enthusiasm and humor. I personally enjoyed every moment I spent with her."

Julie also noted that Jan was a strong supporter of HLAA's North Carolina chapters "and was an inspiration to many."

The NC Department of Health and Human Services is conducting a nationwide search for Jan's successor.

<u>Click here</u> to view Jan's farewell message in American Sign Language. It's captioned, so click the CC if necessary.

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What Does the Term "Nerve Deafness" Mean?

The most common form of hearing loss is called a sensorineural loss. But it's often referred to as "nerve deafness," and that confuses people. One of the most common questions on Facebook groups related to hearing loss is, "If I have nerve deafness, does that mean the auditory nerve can't send the signals from the cochlea to the brain? The answer is "No." In most cases the auditory nerve is fine, and the problem usually is the hair cells in the cochlea. Those hair cells are easily damaged by noise, ototoxic drugs, and aging.

The hair cells convert the vibrations in the fluid of the cochlea to the nerve signals that must be sent to the brain for it to perceive sounds. Their motion in the fluid causes a nerve cell at their base to generate the required signals to the brain, but when the hair cells are damaged or dead across ranges of frequencies, they can't do that, and that's usually the real cause of "nerve deafness" ... not the auditory nerve itself. Learn more about these miraculous hair cells in the next article.

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Tech Focus: Structure of Cochlea

We have two cochleas, one for the left ear and one for the right. Each cochlea is in the mastoid bone. It's shaped like a snail, and its function is to turn sound vibrations into nerve signals sent to the brain where they are perceived as understandable sounds. But it does much more than send signals to the brain. It also receives instructions from the brain to improve hearing in noise by amplifying useful parts of the sound and suppressing parts that interfere with understanding speech. We don't usually think of the cochleas as anything more than input devices, but they are like other parts of your body under control of the brain, and can react to changes recommended by the brain. It's like the way your brain tells your eyes how to adjust for different light conditions. Cochleas are both input and output devices. This Tech Focus looks at the structure of the cochlea and how amazing it is.

First, the cochlea is quite small ... about the size of a small bean. But packed into that tiny space is some particularly important features. You probably imagine that it is simply a snail filled with fluid, hair cells, etc., that convert the sound vibrations your ears send to it to nerve signals the brain can understand as sounds. But the internal structure is more complicated and allows it to do much more than that.

This link <u>SOUND AND HEARING - WikiLectures</u> will take you to a page with images that introduce you to how the cochlea allows people with normal hearing to hear so well ... and how most hearing loss occurs. The rest of this article will refer to the fourth, fifth and sixth images in the above article and cover how the key parts of the cochlea cause normal hearing ... and how the most common hearing loss (sensorineural) often occurs.

Look at the fourth image in the above link. We are going to focus on the cochlea represented in this simple diagram as a backwards "C." The light blue area contains the **Perilymph** fluid. Vibrations from the **Stapes** set up waves in that fluid. Notice that the fluid runs from the **Oval window** that the **Stapes** vibrates all the way to the apex of the cochlea and back to the **Round window**. Waves created in that fluid influence movement in the membranes separating the innermost parts of the cochlea from the part containing the **Perilymph** fluid. The innermost parts include the **Organ of Corti** that contains **hair cells** attached to the **basilar membrane**. The hair cells are overlain by the **tectorial membrane**. The **Organ of Corti** is surrounded by **Endolymph** fluid. Note that **hair cells** are not really hair, and their story is much more complex than most people imagine.

There are two distinct types of hair cells (inner and outer), on the Organ of Corti from the Round window to the apex of the cochlea. The hair cells are tuned to frequencies, starting with the highest frequencies near the Round window and the lowest frequencies at the apex of the cochlea. The inner hair cells are the only ones that send nerve signals to the brain. The outer hair cells just help with noise suppression.

The brain analyzes differences in timing and volume of sounds arriving bilaterally and can use that information in limited ways to focus on sounds you want to hear in a noisy situation. But in noisy situations, the brain also sends instructions to the cochleas down the **Auditory nerves** which can cause the **outer hair cells** with help from the **basal and tectorial membranes** to suppress or enhance the signals the **inner hair cells** are sending to the brain at various frequencies.

And that explains why anyone with a sensorineural hearing loss, usually meaning reduced or no hair cell function in specific frequency ranges, will have a serious problem with understanding speech in noise. The brain can do some things to help in noise, but much of the noise management is lost when hair cells don't function well, whether it's the inner hair cells (that send signals to the brain), or outer hair cells that are the main agent in the cochlea for filtering out noise and focusing on speech.

If you'd like more detail about how the brain's instructions to the outer hair cells help people with normal hearing manage so well in noise, you can ask an Al app (like ChatGPT) the following question: "How do outer hair cells in the cochlea react to the brain's bilateral hearing information to assist in understanding speech?"

Wake Chapter Contacts

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Member Outreach Open; seeking volunteer for this vital role

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