In the lab or on the road, Emerging Research Grants scientist Brad Buran, Ph.D., is conquering mountains
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Having a hearing condition can affect life at work, whether it’s asking for accommodations or leveraging technology. It can also propel the choice of career, leading to meaningful jobs in research, industry, or helping others.

**Features**

- **08** Living With Hearing Loss
  Daily Cues.

- **12** Advocacy
  My ADA Story.

- **14** Research
  The HRP Shifts Gears for Greater Impact.

- **16** Managing Hearing Loss
  Reveal, Don’t Conceal.

- **17** Managing Hearing Loss
  Why I Started a Group on LinkedIn.

- **18** Managing Hearing Loss

- **19** Managing Hearing Loss
  Communicate Effectively Over the Phone.

- **20** Living With Hearing Loss
  My New Sonic Reality, in Harmony.

- **22** Managing Hearing Loss
  Mixed Messages.

- **26** Hearing Health
  America’s Most Common Workplace Injury Is Hearing Loss.

- **29** Hearing Health
  Do You Qualify for Social Security Benefits?

- **32** Technology
  Workplace Workarounds.

- **38** Research
  Recent Research by Hearing Health Foundation Scientists, Explained.

- **42** Living With Hearing Loss
  A Huge Part of My Identity.

- **44** Family Voices
  Filling the Void.

**Departments**

- **04** The Year in Review
- **06** Letters to the Editor
- **14** Meet the Fundraiser
- **24** Meet the Fundraiser
- **46** Clarke Corner
- **47** Hearing Aids 101
- **48** Marketplace
- **50** Meet the Researcher

**Sponsored**

- **36** Technology

Visit hhf.org/subscribe to receive a free subscription to this quarterly magazine.
HAPPY NEW YEAR! IN 2016, HEARING HEALTH FOUNDATION WAS ABLE TO reduce expenses and saw an increase in donations, which allowed us to boost our hearing and balance research budgets by an incredible 30 percent! We still have more work to do but I am very proud of how far we came together.

Last year four independent nonprofit-rating agencies, including Charity Navigator and the Better Business Bureau, gave us top marks for transparency and use of funds. This underscores our responsible stewardship of your contributions, and our generous leadership team covered all administrative expenses so that gifts we received went directly to research and program activities.

While we are grateful our 2017 budget for the Hearing Restoration Project (HRP) is $1.35 million, we must double this amount to optimally fund all needed research. HRP researchers are squeezing as much science as they can from every dollar—John V. Brigande, Ph.D., and his team devised a new method to test for hair cell regeneration that is twice as fast and 12 times less expensive. Please be sure to read the HRP progress report and outline of future plans by HRP scientific director Peter Barr-Gillespie, Ph.D., on page 15.

On the cover of this workplace-themed issue is 2015 Emerging Research Grants scientist Brad Buran, Ph.D., whose interest in understanding his own hearing loss eventually led to a Harvard-MIT doctorate and a career in hearing research. His story is on page 8.

I am grateful for all of our supporters and their tireless commitment. Last year, at age 11, Alex Mussomeli raised an amazing $16,000 by selling his beautiful paintings, one of which appeared on HHF’s holiday card! We also wish to thank the fundraisers on pages 14 and 24, who were inspired by their personal connections to hearing loss. I am humbled by their dedication.

I wanted to end with a note about actress Florence Henderson, best known for her role on “The Brady Bunch,” who passed away at age 82 in November 2016. Henderson had otosclerosis, an overgrowth of bone in the inner ear that leads to a progressive hearing loss starting in the late teens. At an HHF event in 2014, she said that out of 10 siblings, four had the condition.

Henderson also spoke about how hearing loss affected her career. “As a singer [in my 20s] struggling to hear the musical instruments, it was brutal,” she said. Henderson had surgery to implant stainless steel and Teflon prostheses in both ears, restoring her hearing. She joked, “I can also cook in my ears and nothing sticks!”

We are thankful for Henderson’s support of HHF and send our deepest condolences to her family and loved ones. It is because of supporters like her, you, and others that a cure for hearing loss and tinnitus is on the horizon.

Wishing you and yours a happy, healthy 2017!

Sincerely,

Nadine Dehgan
CEO, Hearing Health Foundation
ndeaghan@hhf.org
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DEAR EDITOR:
In the story “I Wish I Had Been Wearing Earplugs,” in the Summer 2016 edition of Hearing Health magazine, the bottom paragraph in the left column reads, “This means that an 80 decibel (dB) sound is 10 times more intense than a 70 dB sound.” This is correct. But then it says, “and an 85 dB sound is 15 times (1,500 percent!) greater than a 70 dB sound.” This is incorrect. Because we are dealing in logarithmic scales, a sound that is 15 dB more intense is actually 31.6 times more intense—just as a sound that is 20 dB more intense is 100 times more intense, not just 20 times more intense.

I thought you’d like to know this since you don’t want errors creeping into your otherwise great magazine. I wrote a blog post with a table so anyone can easily determine how many-fold the intensity difference is between any two sound intensities expressed as decibels: hhf.org/blog?blogid=260.

Sincerely,
Neil Bauman, Ph.D.
Bauman is the founder of The Center for Hearing Loss Help, hearinglosshelp.com.

FROM THE EDITOR: Thank you. This has been corrected in the digital version of the Summer 2016 issue, at hhf.org/archive.

DEAR EDITOR:
I enjoyed reading the article “We Are Family” in the Fall 2016 issue about Soledad O’Brien’s family. As a mom of three children ages 9, 7, and 4, I could relate to some of the challenges and successes of this family. My 7- and 4-year-olds have bilateral sensorineural hearing loss, and both of them wear bilateral cochlear implants (CIs). We are extremely grateful for these devices as they have brought my kids into the hearing world. I am curious as to why O’Brien’s doctor said her son could not play lacrosse if he were to be implanted. Although my son has not tried lacrosse, he plays baseball and loves it. We are always looking for the best ways to make sure he can hear on the field, and we are also careful to protect his head and his processor with a helmet. I have read stories of CI recipients who have done a variety of sports and want to make sure your readers know that!

Thank you for all you do at Hearing Health! We love to meet others with hearing loss and hear their stories.

Katherine Wells
via email

FROM THE EDITOR: Thank you for reaching out to us on this topic. Every child, doctor, parent, and even implant is different so decisions about what works for each child will vary. Some doctors recommend avoiding contact sports when wearing a CI, and the definition of what qualifies as a contact sport may differ. We always recommend that readers consult with their own healthcare providers for professional advice from experts who know their case best.

DEAR EDITOR:
I read with interest “My Life With Ménière’s” in the Fall 2016 magazine. I wasn’t diagnosed with Ménière’s disease until I was in my 40s. I’m 74 now. My first attack came at work, sitting at my desk. This was in the 1980s, and my coworkers immediately concluded I was having a reaction to recreational drugs, which was so common at the time that for people to assume I had overdosed was nearly normal.

My next attack was worse, and I convinced a friend to drive me to a hospital. I stayed for a week, mostly just learning to walk on my own again. Then I took anti-seasickness pills for a long time. Nowadays, the vertigo from Ménière’s doesn’t really bother me much any more. My tinnitus, another symptom of Ménière’s, has stayed with me but I’ve learned to live with it, and if I have to have a disability, this is the one I prefer.

Dan Ruck
via email

FROM THE EDITOR: Thank you for sharing your hearing loss journey. We are inspired by members of our community like you.
I WANT YOU TO HEAR.

Every day, I want you to hear the love in my voice. The music box singing to you. The lullabies as you fall asleep.

I want you to hear your name called at graduation. The words “You’re hired.” The words “I do.” The first words from your own child.

I want you to hear the world today, tomorrow, forever.

Call 1 866 922 9211, or visit www.IWantYouToHear.com for more information.
Curiosity about his own hearing loss, coupled with an interest in building and understanding how things work, led this 2015 Emerging Research Grants scientist to explore nuances of inner ear damage and its relation to hearing conditions beyond impairment.

By Brad Buran, Ph.D.
I have a profound sensorineural hearing loss due to meningitis I contracted at 14 months of age, which means I lost my hearing around the time toddlers are starting to talk.

Very quickly, I received my first hearing aids and, after exploring the communication modes available, my parents decided to try using Cued Speech to communicate with me. They appreciated being able to use visual representations of phonemes, the building blocks of spoken language, to talk with me. So, much as a hearing child acquires spoken language by listening to their parents speak, I learned cued language by watching my parents cue.

Look in the mirror and watch your mouth when you say “mat,” “bat,” and “pat.” They look identical, right? In Cued Speech, you use your hand to provide contrast between phonemes that appear the same on the mouth, thus differentiating among vowels and consonants.

The system is so efficient that a cued language transliterator can keep up with all but the fastest speakers. In fact, a cued language transliterator does not have to understand the meaning of the words, just how they sound. This differs from a sign language interpreter who must understand what the teacher is saying in order to provide an appropriate interpretation.

Based on this early success using Cued Speech, starting in kindergarten I was mainstreamed in my local public school system in Maryland, and was provided with a cued language transliterator. I also had a note-taker for all my classes and saw a speech therapist once a week to work on my articulation.

My parents had considered getting me a cochlear implant when I was young because it was clear I derived little benefit from my hearing aids. They decided against it as they felt the technology was unproven at the time. By the time I was a teenager, in the late 1990s, the technology had improved quite a bit, so we started looking into cochlear implants again.

At age 17, I received an implant for my right ear, but I continued to rely on a cued language transliterator while undergoing auditory rehabilitation training to learn to understand the signal from my implant. Ten years later, I received an implant for my left ear and now, eight years later, hearing with my cochlear implants is still a work in progress. My skills have improved, but slowly. I know I could benefit from more training—I just haven’t had time yet since moving across the country and having a baby!

In graduate school, my classmates wanted to use Cued Speech to communicate with me but felt they lacked the time to learn it. One Monday, a friend came in and started cueing to me—he had taught himself Cued Speech over the weekend! Our other classmates saw how easy it is.

They like to joke they learned Cued Speech because I was the only classmate with a biology background, and they needed my participation in study groups.

One efficient way to learn Cued Speech is to go out for happy hour after work and, in an environment where it’s hard to hear, go through the basics. Within an hour, my colleagues have all the information they need to figure out how to cue just about any word they come across. I have a Cued Speech cheat sheet hanging on my office wall, and I maintain a website for Cued Speech, dailycues.com.

Investigating the “How” and “Why”
Growing up I liked architecture, possibly because structural engineering appealed to me. I have refurbished a catamaran and now construct things on a smaller scale around the house, such as a porch railing, garden planter boxes, an end table, and baby gates.

My high school was a magnet program for science, math, and computer science that required an independent research project over our final summer. I knew I would be most interested in a project related to deafness because I wanted to understand what had happened to my ears. Since the National Institute for Deafness and Other Communication Disorders was near my home, I had the perfect opportunity to do an internship there. My project focused on gene expression in the developing inner ear. It was a very basic project, but it started me on the path of a career in hearing research.

My deafness and use of cochlear implants have also made me very interested in how hearing loss affects our ability to discriminate sounds, and how the brain adapts to altered auditory input or the partial loss of the
One efficient way to learn Cued Speech is to go out for happy hour after work and, in an environment where it’s hard to hear, go through the basics. Within an hour, my colleagues have all the information they need to figure out how to cue just about any word they come across.

auditory nerve. Recently my doctoral mentor, Charles Liberman, Ph.D., and Sharon Kujawa, Ph.D. (who is on HHF’s Council of Scientific Trustees), reported a new form of noise-induced hearing loss. They found that exposure to moderate levels of noise, such as at a rock concert, appears to damage a subset of the auditory nerve, causing those nerve cells (neurons) to die.

The key is that we have always assumed that damage from noise exposure can be detected using conventional audiometry since it also damages the inner ear’s hair cells. However, it appears that some types of noise exposure may cause damage to auditory nerve fibers without damaging hair cells.

Current hearing tests typically used in the audiology clinic will not detect this type of hearing loss. The discovery that part of the auditory nerve dies without any damage to the hair cells suggests there may be some perceptual consequences of this “hidden hearing loss.” In fact there is good reason to think this hearing loss, whose technical term is cochlear synaptopathy, may explain some perceptual deficits such as hyperacusis, tinnitus, and difficulty understanding speech in noise. Cochlear synaptopathy occurs when the connection between the sensory hair cell and auditory nerve is irreversibly damaged.

So, while we can restore some function in the peripheral auditory system, such as with cochlear implants, hearing aids, and future strategies such as hair cell regeneration, the question is: Does the brain have a limited ability to adapt to this restored function? Eventually I want to understand whether normal auditory processing in the brain, including the ability to fully discriminate sounds, can be restored.

One particular challenge I came across as a scientist with hearing loss is the ability to “listen” to my experiments. When using electrodes to record the firing activity of neurons, the signal from the electrode is fed through a speaker. As the electrode is slowly advanced through the tissue, the speaker amplifies the distinctive sound of neurons firing that we then use to help locate the neurons. Each spike sounds like a click or a popping noise.

The first time I heard it, it was an astounding experience. It also had the benefit of helping me learn to use my cochlear implant; I had to learn to pick out the spikes from background noise.

Experiencing new sounds, training my brain, teaching others to communicate, and working toward scientific discoveries—these are all things I love about the career I have, as I investigate a topic that means so much to me personally.

Brad Buran, Ph.D., received his doctorate in the Harvard-MIT Program in Speech and Hearing Bioscience and Technology. He subsequently completed a postdoctoral fellowship at New York University, worked for Galenea Corp. as a research scientist, and is now a postdoctoral fellow at the Oregon Hearing Research Center, Oregon Health & Science University. Buran’s 2015 ERG project to explore the perceptual effects of auditory nerve damage was funded by Hyperacusis Research Ltd.

Share your story: Has a curiosity about your hearing condition affected your choice of career? Tell us at editor@hearinghealthmag.com.

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Catch Every Word

Enjoy phone conversations confident you’ll catch every word! CapTel® Captioned Telephones show you captions of everything your caller says.

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The Ultimate Phone for People with Hearing Loss
I HAD THE HONOR OF INTRODUCING PRESIDENT BARACK OBAMA AT A WHITE HOUSE reception in July 2015, commemorating the 25th anniversary of the Americans with Disabilities Act (ADA).

The president shared a moving story of how, in the years before Congress passed the ADA, his father-in-law—who had multiple sclerosis—would sometimes hold himself back because he didn’t want his disability to inconvenience others. With that story, President Obama reminded Americans, “We’ve got to tear down barriers externally, but we also have to tear down barriers internally.”

As someone who has struggled against attitudinal barriers, I loved hearing our president encourage the world to view access for people with disabilities as a civil and human right.

As a deafblind student, I witnessed advocates using the ADA to change social attitudes. The National Federation of the Blind regularly referenced the ADA when explaining to technology developers why designing access for people with disabilities is a necessity and not some optional cherry atop a Silicon Valley sundae. I heard how the National Association of the Deaf used the ADA to increase closed captioning online, and how the organization Disability Rights Advocates used the ADA to compel Target’s tech team to make their website accessible to blind Americans.

Impressed by the success of these advocates, I felt inspired to join them. Back then, and even now, I encountered so many barriers in the digital world—not because of my disability, but because of attitudes among tech developers that trivialize access for people with disabilities.

When I entered Harvard Law School, I faced a serious question: How would a deafblind student succeed? I remember the first time I presented my communication system to a lawyer. I felt many of the insecurities probably experienced by President Obama’s father-in-law. Would the lawyer think I was somehow inconveniencing her or slowing her down?
Knowing the power of confidence, I hid my insecurities and put on a smile. “Would you mind typing on this keyboard since I can’t hear you? I’ll be able to read what you type on this Braille display.” To my surprise, she started typing.

I started to think that maybe, just maybe, I would survive law school.

Not only does the ADA make it possible for people with disabilities to obtain a world-class education, but it also empowers us to overcome our own insecurities in pursuit of our dreams. Two years after law school, through my work at Disability Rights Advocates, I helped achieve a legal victory in National Federation of the Blind v. Scribd Inc, the second decision to hold that the ADA applies to e-commerce.

More than two decades after the ADA, advocates still encounter attitudinal barriers among tech companies that continue to insist they don’t have to provide access for people with disabilities. Given the necessity of accessing online services in today’s world, all of us with disabilities will continue to turn to the ADA to tear down barriers. President Obama has led our nation in the quest to remove external and internal barriers. When I met him at the White House, even though he had never communicated with a deafblind person through a digital Braille display and QWERTY keyboard, he gracefully switched from speaking to typing.

Through our conversation, I experienced the genuine warmth of our president, his attentiveness to people, his understanding of the value of technology in connecting people, and his sincere belief that people with disabilities, people like his father-in-law and myself, should never let attitudinal barriers stop us from pursuing our dreams.

Watch President Obama and Haben Girma at youtube.com/watch?v=SZCQT-DYVNY. This post originally appeared on the White House website and is republished with permission via Creative Commons. The first deafblind person to graduate from Harvard Law School, Girma champions equal access to information for people with disabilities. For more, see habengirma.com.

Share your story: How has the ADA worked for you? Tell us at editor@hearinghealthmag.com.

Support our research: hhf.org/donate
IN DECEMBER 2012, MY YOUNGER SON JOHN WAS born profoundly deaf. I am a music teacher and was heartbroken and scared when I found out he couldn’t hear, as music has been a huge influence in my life. My older son Kevin was born two years before with typical hearing.

My husband and I want to make decisions to give John the most opportunities in life, and we were told that John was a candidate for cochlear implants. Hearing aids that he’d had since age 3 months weren’t working for him, so even though we were nervous because he was so little it was the right choice. John received his first implant at age 13 months and his second at 19 months—and the implants are exactly what he needed. He lives to sing, is super-social, and attends mainstream pre-kindergarten.

When I decided to run the New York City Marathon, I knew I wanted to raise funds for a charity whose mission I believe in: a nonprofit that educates others as well as provides funds for research. Hearing Health Foundation was the perfect choice. I ran for my son and I ran for my dad, who is also a music teacher and a marathoner, and who was recently diagnosed with Parkinson’s disease. He experiences tinnitus as a result of this disease.

My family and the school where I work, Albany Avenue Elementary, were all incredibly supportive. All of the teachers and students were aware of my training and offered kind words and support right up to race day. It’s funny how many people are amazed by racing marathons and impressed that anyone can run that far! I had done one marathon before, and logged my long training runs early in the morning or on weekends, with my husband holding down the fort.

It was an incredible feeling to race among the crowds in New York City, and very meaningful for me to raise money for such a great charity. I ran with a customized bib that read, “Celebrating That My Baby Can Hear.” So many runners congratulated me. It made me feel a bit emotional because we are so lucky. We had a lot to celebrate at John’s 4th birthday—the week right after the marathon.

Catherine McLoughlin lives with her family in New York.
IT’S REMARKABLE TO ME THAT THE HEARING Restoration Project (HRP) is five years old! While the past five years revealed that regeneration of sensory hair cells is more complex than anticipated, our scientists have nonetheless made significant progress. Several notable HRP research projects supported by Hearing Health Foundation (HHF) were published in 2016, and more are on the way.

Financial investment in the HRP is crucial for our success. Through the HRP, HHF supports promising innovative research areas that due to the lack of available funds are not adequately financed by other agencies. We continue to acquire large-scale genomics datasets, and the more we generate the more valuable they all are—comparing the results from different types of experiments is a key approach of the HRP.

In 2017 we will see a change in the way the HRP conducts its research. At our HRP meeting this past November, the consortium updated its research methods for the upcoming year, choosing to focus and devote more resources on two promising, major experimental strategies. This is a shift from the approach over the past five years, when the HRP followed various independent paths to understanding hair cell regeneration.

The first project will use “single-cell sequencing” experiments, which will reveal the molecular processes of hair cell regeneration in chicks and fish with unprecedented resolution. Single-cell methods allow us to examine thousands of genes in hundreds of individually isolated supporting cells, some of which are responding to hair cell damage.

With these voluminous datasets, we will then describe the succession of molecular changes needed to regenerate hair cells. Results from these experiments will be compared with similar experiments examining hair cell damage in mice, which like all mammals, including humans, do not regenerate hair cells.

The second project will examine whether epigenetic DNA modification (the inactivation of genes by chemical changes to the DNA) is why mice supporting cells are unable to transform into hair cells after damage to the ear. Our existing data suggests this is the case, and so a strategy for hearing restoration may involve the reversal of these epigenetic modifications.

The first project will allow us to identify the genes involved, and the second project will help us understand how to effectively manipulate those genes despite their DNA modifications—and to biologically restore hearing.

The consortium approach funded by HHF provides a unique opportunity; the collaboration of 15 outstanding hearing investigators will lead to results far more quickly than traditional projects that rely on a single investigator. All HRP investigators plan projects and interpret data arising from them, allowing us to collectively utilize our 200-plus years of experience we have studying the ear.

HHF has been able to increase HRP funding for 2017 compared with 2016—for this I am grateful. However, there are several research needs unmet. Increased funding levels would speed our deeper understanding of hair cell regeneration, which will ultimately lead us to find therapies to treat human hearing loss and tinnitus.

Most of all, we are looking to add additional scientists to HRP labs to increase productivity and significantly accelerate research progress. There is also an urgent need for more “bioinformaticists” scientists to thoroughly examine our data and identify common threads buried deep within our results. In addition, the HRP has research projects that have been placed on hold until funding is found for them.

We are excited about the coming year’s planned research, and eagerly await the results. On behalf of myself and the other scientists who make up the HRP, I thank you for your investment and interest in our work. I look forward to giving you further updates.

**HRP scientific director Peter Barr-Gillespie, Ph.D., is the associate vice president for Basic Research and a professor of otolaryngology at the Oregon Hearing Research Center, and a senior scientist at the Vollum Institute, all at Oregon Health & Science University. For the HRP’s recently published results, see page 40.**
Here are 10 ways to better manage your hearing loss in the workplace.

**By Holly Cohen**

1. **ACKNOWLEDGE** your own hearing loss so that you are better prepared for whatever communication challenges you face at the workplace.

2. **REMEMBER** that you bring experience, skills, and strengths to the workplace every day. Your hearing loss does not define you and will not prevent you from performing well.

3. **EDUCATE** yourself about accommodations such as CART (Computer Assisted Realtime Translation) and assisted listening devices that include FM systems, streamers, amplified-captioned/flushing light phones, and PSAPs (personal sound amplification products).

4. **ADVOCATE** for yourself by asking the appropriate person in your workplace for reasonable accommodations. Emphasize the benefits to your employer.

5. **TELL** your coworkers about your hearing loss and the best way to communicate with you. Ask them to face you when speaking and to rephrase rather than repeat misheard words. Be prepared to remind them again and again.

6. **PREPARE** for meetings by requesting the agenda and a list of attendees beforehand, as well as CART and other assistive listening devices, if needed. Arrive early to select a centrally located seat with your back to the window.

7. **ANTICIPATE** your needs for conference calls. Ask for remote CART, followed by the CART transcript. If CART is unavailable, ask colleagues to take notes. During conference calls, ask people to identify themselves each time they speak.

8. **MAKE ARRANGEMENTS** with colleagues if you can’t hear the fire alarm, pages over the PA system, or other auditory alerts.

9. **READ** hearing loss books, blogs, and magazines—such as this publication—to stay current on hearing loss issues.

10. **CONNECT** with others in your hearing loss community through organizations such as the Hearing Loss Association of America (hearingloss.org) and Hearing Health Foundation (hhf.org).

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The past president of the Hearing Loss Association of America’s New York City chapter, Holly Cohen developed this list for a program she facilitated for the group about workplace issues. For references, see hhf.org/winter2017_references.

**Share your story:** Have you chosen to reveal, or conceal, on the job? Tell us at editor@hearinghealthmag.com.
**MANAGING HEARING LOSS AT WORK**

**Why I Started a Group on LinkedIn**

By John Huston

I DID IT BECAUSE I WAS MAD. THAT’S WHY I STARTED
the Deaf and Hard of Hearing group on LinkedIn. I was
mad because there appeared to be many people—educated,
mature, professional people—struggling in the workforce
simply because they did not have the information they
needed to succeed.

A simple look around LinkedIn, the site for people
looking to make professional connections, showed that
while there were other groups dealing with hearing loss,
one did not deal specifically with workplace-related issues. There
were groups on hearing loss in general (sample comment:
“I’m going deaf. Do I need a hearing aid?”) and groups
about the activities of a specific association or organization.

But there was nothing for the 40-something who had a
job in a professional setting, where they had to attend and
understand in meetings, on the telephone, and other typical
office situations. People with hearing loss were scared for
their jobs. They had no place to go to get information on
accessibility, technology, or the laws that would give them
the resources they need to succeed.

The group took off fairly quickly; within a few months
we had our first 1,000 members. We’re approaching 10,000
now. If you search LinkedIn groups using the keyword
“deaf” you’ll see that we are by far the largest group dealing
with hearing loss.

Membership, as might be expected, is primarily
professionals in the workplace who are deaf or have
some level of hearing loss. We also have many members
who work in the hearing loss field: audiologists,
otolaryngologists, teachers, and therapists. Anyone who has
an interest in helping people with hearing loss to succeed
in the workplace is welcomed as a member!

While the majority of the members are American,
including myself, I’m proud that we have strong
representation from the United Kingdom, Canada,
Australia, and even Africa and India.

Discussions over the years have covered a wide range
of topics, from assistive technology such as captioned
telephones and FM systems to the intricacies of the
Americans with Disabilities Act. Some topics have
provoked animated, if not heated, discussion, such as open
captioning at movie theaters, Deaf culture, and the question
of whether we are “hearing impaired” or “hard of hearing.”

But to me, the group is at its best when someone finds a
solution to a difficult problem regarding their hearing loss. When a member says they are using
information they learned from the group and are succeeding much better
at their job, that makes it worthwhile.

This makes me realize that our group is not helping just one person; it’s
helping that person support a family.

When a member says they are using information they learned from the
group and are succeeding much better at their job, that makes it worthwhile.

And, contrary to the anger that encouraged me to start
the group, moments like this make me very happy.

A resident of the greater Atlanta area,
John Huston wears a cochlear implant
and works in marketing in the insurance
industry. Find the Deaf and Hard of
Hearing Professionals group at linkedin.
com/groups/920227.

Share your story: Do you belong to a professional
group, and has it helped your career? Tell us at
editor@hearinghealthmag.com.
MANAGING HEARING LOSS AT WORK

HOW MY HEARING LOSS MAKES ME BETTER AT MY JOB  
By Sarah Bricker

MY HEARING LOSS JOURNEY LED ME to a position as a communications specialist at Starkey Hearing Technologies, the Minnesota-based hearing aids manufacturer. Managing a hearing loss at work has meant that I sometimes have trouble hearing speech in noisy conference rooms, and that I may miss various sound cues during international phone calls. Yet as I navigate these challenges in the office, I can also see that having a hearing loss has actually helped me to become a better employee.

I am comfortable asking for help. There’s a misconception that asking for help means you’re incapable of doing your job or it will make your boss or colleagues think less of you. But I see asking for assistance as showing an interest in learning and growth and a desire to recognize weaknesses and overcome them.

“Hard work” is my middle name. Having a disability often means I have to work a little harder than those with full abilities. I may have to try harder to hear in staff meetings, when talking to clients on the phone, or when attending a seminar in a large auditorium—but I also focus and do due diligence before and after meetings and calls to make sure I didn’t miss anything. Even with my hearing aids, it’s better to be safe than sorry.

I find creative solutions. Because my hearing loss can sometimes prevent me from doing something the usual way, I am always looking for an innovative approach. I believe this is a life skill that will enable me to take on challenging projects at the office and figure out solutions others may not have considered.

I am patient. Hearing loss means I may have to listen to the same phrase three times before understanding it, but that’s okay. I’ve learned that getting it right is more important than getting it right now. That outlook is extremely beneficial when it comes to long-term projects and client relationships, not to mention everyday interactions with colleagues, friends, and family.

Texas native Sarah Bricker holds a bachelor’s degree in journalism from the University of Missouri and is a communications specialist at Starkey Hearing Technologies in Minnesota. She has a profound progressive sensorineural hearing loss that was diagnosed at age 13.

I work well alone and with a team! Having a hearing loss means I’ve learned the skills necessary to be self-sufficient and to succeed on my own. By the same token, my hearing loss has also given me an underlying “Go Team!” attitude from years of asking for help. I know I can rely on my team, whether it’s to fully follow a group discussion or to make sure I get all the notes I need in a conference hall.

Share your story: Has your hearing loss made you better at your job? Tell us at editor@hearinghealthmag.com.
EVEN WITH EMAIL, TEXTING, AND VIDEO CHAT available, the humble telephone remains a primary means of communication in the workplace. Telephones, of course, render the communicators unable to see each other when talking, so they can’t take advantage of important visual cues, including knowing when it’s their turn to talk. This is especially disconcerting for those with hearing loss; however, communication breakdowns can happen over the phone even between people who don’t have difficulty hearing. Here are simple strategies to help.

If you are the speaker, you are responsible for conveying a clear message that is received accurately. Focus on the call (don’t multitask!), and make sure the telephone receiver or headset microphone is near your mouth. Speak at a slightly slower pace and enunciate clearly. If your listener is struggling to understand, don’t just repeat what you said; rephrase it or provide additional clarification. This is especially important when conveying letters or numbers; say “C, as in Charlie.”

If you are the listener, place your full attention on the phone call. Turn up the volume to a comfortable level, and consider using the speakerphone so you can hear with both ears. If you miss a word or sentence, don’t just say “What?” Ask your speaker to rephrase the last sentence. You can also ask follow-up questions requiring a yes/no answer (easy words to understand over the telephone) and repeat back what you think you heard.

For optimal hearing—and whether your workplace environment is an office, classroom, or factory—do your best to eliminate background noise when on the phone. Turn off any distracting sounds in your environment, such as silencing a cell phone or muting your computer, or find a quieter place to conduct your phone call.

Landline phones are available with amplifiers and tone controls. Landline phones work well with the telecoil (t-coil) built into most hearing aids (ask your hearing health provider if you are unsure). The t-coil is a small copper coil that picks up the electromagnetic energy naturally emitting from landline phones for a clear signal, without needing a microphone.

If you are in the market for a new cell phone, be sure to choose one that is “hearing aid compatible,” with a microphone (M) and telecoil (T) rating of 3 or 4. Many advanced hearing aids can connect wirelessly to mobile phones, creating a convenient “hands-free” option with excellent sound quality.

These strategies can be applied to many other situations as well. Enunciating clearly on the phone will make you a better communicator all around. Getting out of the habit of asking only “What?” and replacing it with a polite, “Can you please rephrase that?” will help in any situation. Reducing background noise and taking advantage of technology can improve communication efforts for everyone.

Dusty Ann Jessen, Au.D., is based in Colorado. This article is adapted with permission from her book, “5 Keys to Communication Success.” For more, see 5keys.info.

Share your story: What communication strategies have been helpful in the workplace? Tell us at editor@hearinghealthmag.com.
My New Sonic Reality, in Harmony

A cochlear implant turns music upside down for this guitarist, until she learns how to hear melodies again.

By Renee Blue O’Connell

For my 50th birthday, I considered going skydiving to ring in the next phase of my life. Instead, I got a cochlear implant (CI). Little did I know how much the journey to hear again would be like skydiving. It was pretty scary, and after watching so many of those activation videos, which made the CI appear to be something like a “magic wand” that restored hearing instantly, I was not prepared for the months of work ahead learning to hear with a bionic ear.

The doctors think I may have had a hearing loss since birth. I started playing guitar in my teens, later studying classical guitar in Chicago. My hearing loss worsened when I contracted mononucleosis in my 20s. I didn’t realize how bad my hearing loss was until age 25. As I waited for a fellow music student, who was sitting behind
a keyboard, to play me a song he composed, he told me with surprise that he had already played it. I was fitted for a hearing aid soon afterward, but over the years my hearing continued to worsen.

I waited for my CI activation day with excited anticipation. I envisioned something like Dorothy in “The Wizard of Oz,” stepping out of the black and white world and walking into beautiful color. But it was no happy scene for me. When that switch turned on, I was shocked. It’s a noisy world!

For months I struggled to adjust to my new sonic reality. I got help from my auditory rehabilitation counselor and diligently worked on the auditory exercises I was assigned to do for two hours every day. First I listened to the alphabet to distinguish clearly between each letter. Then I practiced with one-syllable words, graduating to phrases, on to short stories, and so on.

I continued playing classical guitar, but it sounded strange and unpleasant. If I showed you a picture of what I heard when I struck one note, it would look like jagged, disconnected patterns on a frozen pond. Contrast that with what a note used to look like: flowing, concentric circles that form when a stone hits water.

Music has always been the most important aspect of my life, so I was determined not to give up until I could hear it correctly again. I found a music teacher, Aila Juvonen, who started with interval recognition exercises. The “alphabet” of music is made up of intervals, the distance between two notes. A series of intervals make up a melody. At each lesson Aila would play two intervals on piano and I would attempt to identify them. I practiced at home using interval-recognition song charts listing well-known songs with commonly heard intervals. For instance, “Somewhere Over the Rainbow” begins with an octave.

We also worked with the book “Sight Singing” by Samuel Adler. I was quizzed on singing lines of music from notation. Aila would play the first note of the line to give me the starting pitch and then I’d sing the rest by myself. Afterward, we compared my ending note with the piano to see if I stayed in pitch. This was very difficult, but fun too.

I believe that singing notes out loud is very important because our bodies become a resonating chamber to feel the notes. It helps rewire our brains to learn musical relationships similar to the way speaking words out loud reinforces learning a language.

Eighteen months after my CI activation in 2009, I left my “safe” administrative office job of 12 years to pursue my dream—to work as a professional musician. I became a certified music practitioner and play therapeutic music for hospital patients, nursing home residents, and people with special needs. It is so meaningful to me to bring music into their lives.

In July 2016, I was selected to participate in an international festival for musicians with CIs called “Beats of Cochlea” in Warsaw, Poland. I also had the honor of presenting at “Hearing Implants & Music,” a conference which took place in the World Hearing Center in Kajetany, Poland. I was so amazed to meet so many highly skilled musicians with CIs from all over the world.

I sometimes get asked if I’ve recorded any music. I have one CD to my credit, “Choose the Sky.” Since it took me five years to finish, because of a break for my CI rehab, I think of the music in it as part hard work, part sheer miracle.

Renee Blue O’Connell, CMP, is a musician and speaker in Charlottesville, Virginia. She wears a CI in her left ear and relies on residual hearing in her right ear, with a hearing aid for backup. For more, see blueoconnell.com.

Share your story: How has your life changed after getting a cochlear implant? Tell us at editor@hearinghealthmag.com.

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Misreading a situation is more likely when coworkers are not aware that a colleague has a hearing loss. But sometimes people don’t ask for the accommodations they need in the workplace. Why is that?

By Kathi Mestayer

THERE I WAS, SITTING ON A PANEL AT A BIG, NATIONAL conference, when my hearing aid started its “ping, ping,” signaling the battery was dying. We were on the last speaker, so the Q&A period was moments away. Feeling a bit nervous, I stealthily reached into my briefcase, got a battery, and quietly changed it, right in front of everyone. Nobody passed out from shock.

Being at work with hearing loss is a challenge, in more ways than one. There are the things you know about, like your hearing aid battery dying, and the ones you don’t, like when you don’t realize you haven’t responded to a casual greeting from a coworker way down the hall.

Clear communication at work is important, so mixed signals muddy the waters for everyone. In “Talking From 9 to 5,” Deborah Tannen, Ph.D., a linguistics professor at Georgetown University, focuses on conversation between men and women at work—but there are implications for those with hearing loss.

“The big takeaway from my study was that women are often seen as less confident and competent than they really are, because of the ways they communicate. Absolutely the same would be true for people with hearing loss who exhibit any of those behaviors,” she says.

One example Tannen gives is that of a medical intern who asks her supervising physician why he had given her a low grade. He replies that she didn’t know as much as the other interns, adding, “You ask more questions.” It’s not a stretch to imagine this happening to an employee with a hearing loss.

But we also send, and receive, confusing nonverbal messages, which include body movements, gestures, facial expressions, proximity, tone of voice, and many others. Here are some common nonverbal messages (and potential misinterpretations):

- A furrowed brow or head tilt (can convey a lack of comprehension, or doubt)
- Leaning forward (can appear challenging or invasive)
- Asking for repetition (can create the impression of being skeptical)
- Lack of response to a greeting (can be taken as rudeness or lack of interest).
Tannen agrees that these nonverbal behaviors can also have the effect of “making someone see the hard-of-hearing person as less confident and competent.” Over time, mixed messages can multiply and solidify, making teamwork harder across the board.

Stepping Up to the Plate
Why are some people more likely than others to ask for help with hearing loss at work? How do we decide whether to step up or step back?

A February 2015 study by David Baldridge, Ph.D., and Michele Swift, Ph.D., both faculty members at Oregon State University’s College of Business, surveyed 242 full-time employees with mild to profound hearing loss, ages 18 to 69. Through email, they asked these workers whether they felt their coworkers are supportive of them asking for accommodations for their hearing loss.

That cognitive process, referred to as “normative assessment,” includes weighing the benefits, and costs, of asking for help. “An employee may ask someone to speak more slowly or repeat something,” Baldridge says. “But if the coworker expresses frustration—even subtle facial expressions and body language, for example—the hard-of-hearing employee may feel that it would do more harm than good to ask.” Earlier research from Baldridge and Swift that was published in The Journal of Management bears out this reluctance to ask for accommodations.

The 2015 study finds that age plays a part in the decision about whether to ask for accommodations. Older workers feel stigmatized by age and are less likely to request help for their disability, believing the request will be attributed to their age.

An especially interesting finding reported in the study was that the workers felt more supported in asking for an accommodation when they had a coworker with a similar disability. But how likely are we to know that a colleague is also hard of hearing?

Hearing loss is often undetected and/or unannounced, so it can be virtually invisible. This study suggests that if more workers knew about their own needs, and those of others with hearing loss, additional accommodations would be requested and granted. They would be more likely to take a better seat at the training session, ask for a captioned phone, or say to a speaker, “Yes, we really do want you to use the microphone.”

What Needs to Happen
Since these are complex issues, decision-makers can’t sit back and wait for requests for accommodations to show up in their inboxes. Baldridge and Swift’s research suggests that managers institute training about disabilities to increase awareness, proactively start discussions about accommodations, and then follow through to make those accommodations.

“For example, purchasing telephones with adjustable volume controls and arranging for large meetings to be open-captioned often benefit ‘non-disabled’ employees the same way that wheelchair-accessible curbs benefit those pushing strollers and toting luggage,” they write.

Baldridge and Swift conclude that we should “move beyond a medical model that groups people into ‘able’ and ‘disabled’ to a view that variation in many human functions is a normal part of employee diversity.” This is a much-needed paradigm shift, and one that is relevant beyond the workplace.

My dead-battery experience on the panel was unexpected, and a little unsettling. On reflection, I hope that someone in the audience with a hearing loss was made a little more comfortable talking about it after seeing me change the battery.

There were definitely folks with hearing difficulties in the audience, and since this conference was primarily for managers, their direct reports knew how to make accommodations for them—like talking toward their boss’s good ear. In the end, it benefits all of us with hearing conditions to open up about them in the workplace, not only to get the accommodations we need, but also to prevent sending mixed messages.
I am writing a book called “Frankenstan,” about a group of friends who misjudge a classmate based on preconceived notions. My dad and I came up with the idea because we felt kids judge one another without being aware of it. We hope the novel will make kids more conscious of how rumors and stories affect views.

While the book isn’t directly about my experiences, I have had a hearing loss since birth. Last summer I set up a lemonade stand in my front yard to raise money for Hearing Health Foundation because my family and I believe in its mission to educate, prevent, and research hearing conditions.

When I was born in 2001, I failed the newborn hearing screening test, twice. After more testing it was confirmed I have a severe to profound sensorineural hearing loss in both ears. Like many newborn hearing loss diagnoses, the cause of my condition is unknown.

At age 6 months, I received digital hearing aids and began speech therapy. Over time it became clear that the hearing aids were not fully helping. Since we live near New York City, my parents took me to Mount Sinai Beth Israel Hospital when I was 3 to see if I was a candidate for a cochlear implant.

As soon as the doctors heard me speak, they immediately knew I needed a cochlear implant. I had my first surgery shortly after, in 2005, for my right ear, and then had a second surgery at age 5 for my left ear, in 2006.

Now I am 15. I have nearly typical hearing, and as a sophomore at my local high school, I take honors classes and run varsity track. None of this would have been possible if I didn’t have the astounding love, support, and encouragement from the people around me, especially my parents.

Starting with preschool, I worked immensely hard at speech and auditory training. In fact I was able to stop training in first grade when I scored well in evaluation tests. Through this experience I learned how to try my absolute best no matter what it is I am doing—whether it’s speech training, schoolwork, sports, music, or fundraising. I am so grateful to be able to bring this attitude with me through life.

When I was younger, I was upset that other kids read at a more advanced level than I could. I wish I had known that my brain is actually working harder than other kids with typical hearing, because the way I hear is different. Realizing that my brain works harder to hear completely changed the way I went about learning. I understand now that certain methods may not be the best way for me to comprehend something. For example, when I have to listen in Spanish class during a test, I ask the teacher for a transcript to make sure I didn’t miss anything. This understanding of my limits has led me to be very confident in myself and my work. I no longer compare myself to other students because I know that I’m not like other students.
I learned how to try my absolute best no matter what it is I am doing—whether it’s speech training, schoolwork, sports, music, or fundraising. I am so grateful to be able to bring this attitude with me through life.

I ask for other accommodations, such as sitting in the front row closest to where the teacher speaks and getting extra time on exams if necessary. At home, my parents and younger brother make sure they always speak clearly and in front of me so I can read their lips.

If you (or a loved one) are just starting your hearing loss journey, I have two pieces of advice. One, don’t beat yourself up if you feel like you aren’t doing that well. You’re probably doing much better than you’re giving yourself credit for.

Two, don’t be afraid to ask for help. It’s not embarrassing or a sign of weakness. In fact, it’s just the opposite; it shows self-awareness of the fact that you have to work harder to hear. It will help you succeed.

And actually, I have a third: Celebrate the small victories, such as when you hear everything a person says to you the first time. It’s these tiny triumphs that will carry you to the big ones!

Emily Flamme lives in Mount Sinai, New York, with her family.

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Questions? We’re here to help! Email [fundraise@hhf.org](mailto:fundraise@hhf.org).

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*Share your story:* Tell us why you support HHF at editor@hearinghealthmag.com.

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Eight years ago, Jeff Ammon, now 55, began noticing a feeling of pressure in his ears every day after work.

Over the next months, when his symptoms progressed to a slight loss of hearing and sensitivity to noise, he became worried. Ammon, a construction worker for 32 years, eventually started wearing ear protection hoping this would address these issues—but it was too late.

From that point on, sounds ranging from the hum of a lawnmower to normal tones of conversation caused a piercing, jabbing pain in his inner ear. He stopped working in 2011, when the pain became unbearable. He also hears ringing in his ears and experiences dizziness, both side effects of the auditory damage.

“It’s debilitating... completely,” he says.

Ammon spent almost all of his working life surrounded by the loud noises of jackhammers, saws, and air compressors. Now he avoids going outdoors, choosing instead to stay in his soundproof basement in Lebanon, Pennsylvania, and communicating with his doctor mostly through an online patient portal.

“The medication to address pain has not been very successful at all,” he says. “I’m also on some medication for stress, anxiety, and depression. It has isolated me from society.”

Ammon is not alone in suffering from workplace-related hearing loss. In fact, according to the Centers for Disease Control and Prevention (CDC), it is the most common work-related injury with approximately 22 million workers exposed annually to hazardous levels of occupational noise. Workers in the mining sector, followed by those in construction and manufacturing, are most likely to suffer from hearing impairment. An estimated $242 million is spent on workers’ compensation annually for hearing loss disability, according to the Department of Labor.

In an effort to reduce these numbers, the Labor Department launched a challenge last summer called “Hear and Now,” to solicit pitches for innovative ideas and technology to better alert workers of hazardous noise levels. (The winner, announced this past October, was Sonomax Technologies’ Eers, custom-fitted earphones.)

But critics say that while these efforts might help, technology to reduce hearing injuries already exists. They contend that the maximum level of noise exposure allowed before employers are required to provide sound-
Workplace regulations use sound level limits that don’t factor in the noise exposures that occur beyond the workplace—at restaurants, concerts, and sporting venues, for instance—that can add to workers’ cumulative risks of harm.

protection equipment is too low, and the regulations developed by the Occupational Safety and Health Administration (OSHA) are outdated. For example, those regulations use sound level limits that don’t factor in the noise exposures that occur beyond the workplace—at restaurants, concerts, and sporting venues, for instance—that can add to workers’ cumulative risks of harm.

According to OSHA officials, the agency issued a request for information in late 2016 about current regulations at construction sites to figure out if more stringent protections are needed and how companies are complying. (The construction industry has often been held to separate noise-related rules and requirements than those in place for other industries.) The review may lead to an update to these rules, most of which date back to the 1970s. A similar call for information was issued in 2002, but no changes resulted from the action.

Employers may also have to shoulder the responsibility of instilling more awareness and education among their workers. For example, workers sometimes choose to not wear hearing protection at work sites because they are not aware of their risks—especially when they are not operating loud equipment.

Mark Cullen, M.D., a professor at Stanford University who explores workplace hazards, found in a study that the employees who suffer most from hearing loss were those working in jobs involving moderate noise levels instead of high-noise environments.

“At very high noise exposures, people very faithfully wear hearing protection, and at low noise situations, people don’t,” he says.

For general industry workers who are exposed to noise for eight hours a day at or above a time-weighted average of 85 decibels (dB), OSHA requires employers to provide notification, audiometric testing, and free hearing protectors. Employers also have to offer training programs for affected workers. The noise limit is 90 dB for an eight-hour exposure for construction industry workers.

Cullen says employers could build noise barriers or eliminate noisy equipment, but old factories often choose to just offer hearing protection gear.

“But the problem with hearing protections is it is way too easy, unsupervised, to take it off,” he says. “What would really make a difference is to train employers.”

He said there is also existing technology that will measure noise exposure in real time in each worker’s hearing protection gear, with lights that flash when the level becomes hazardous. The data can be downloaded each day to monitor daily exposures.

Theresa Schulz, Ph.D., the hearing conservation manager at Honeywell Safety Products, said many companies, including hers, already have such products. While she sees more large employers expressing interest in these technologies, the cost might be a deterrent for others.

“But when you think about it... the cost of having these electronics to protect the workers is nothing compared with the damage after that,” she says.

Meanwhile, the CDC, as part of its Buy Quiet campaign, has an online database of power tools with information about sound levels of different tools to encourage businesses to invest in quieter tools and machinery.

Ammon worked for several small construction companies building houses. He says he was never told to wear ear protection. His colleagues didn’t wear it either. No one talked about it, and even when he worked with loud equipment, he wasn’t aware of the need for it.

“It costs money. That’s my opinion on why it’s gotten as bad as it has, at least for small construction companies,” says Ammon, adding that the rules are “just not enforced.”

Some of the steps taken by the federal government to move toward tightening regulations and increasing awareness suggest this might be changing. But in the meantime, people like Ammon, who feel disabled by
“The cost of having these electronics to protect the workers is nothing compared with the damage after that,” says Theresa Schulz, Ph.D., of Honeywell Safety Products.

their condition, might face difficulties in getting recognition for their symptoms and financial support.

Ammon applied for Social Security disability benefits but was rejected because his condition was not on the Social Security Administration’s list of medical diseases considered disabling. When he first experienced his symptoms, he visited dozens of audiologists who told him he only had slight hearing loss. Research linking hyperacusis—unusual intolerance toward ordinary sounds—and pain was only at its infancy. Specific treatments still are not available for people with this type of hearing damage.

These days, Ammon experiments with new medications or therapies, hoping for more awareness about the illness—and about protecting hearing at the workplace. He is waiting for the third appeal for Social Security disability benefits. “I’m hearing a little more about it, but not nearly enough,” he says. “And it needs to start at the workplace.”

This story is produced by Kaiser Health News, an editorially independent program of the Kaiser Family Foundation, and republished via Creative Commons. For references, see hhf.org/winter2017_references. To read about the National Labor Relations Act and disabilities, see hhf.org/blog?blogid=258. To learn more about Social Security benefits, see next page.

Share your story: Do you have a hearing loss or other hearing issue due to work conditions? Tell us at editor@hearinghealthmag.com.

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If you or a loved one has been diagnosed with hearing loss, the Social Security Administration (SSA) offers financial benefits for some people who are unable to work due to hearing loss.

There are two types of disability benefits for people with hearing loss: Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI). Medical qualifications are exactly the same for both programs, but each program has its own eligibility criteria.

SSDI benefits are awarded when an adult (ages 18 to 66) is no longer able to work due to hearing loss. Only people who were previously employed and have been working throughout most of their lives qualify for these benefits. You can determine whether you have earned enough work credits based on your age on the SSA’s website (ssa.gov/planners/credits.html).

There are no work requirements to earn SSI benefits; however, there are strict financial limitations. An adult SSI applicant cannot earn more than $735 monthly in 2017. For children applying for SSI benefits, parental income is evaluated, and if you are married or have other children, your household income limit is higher.

Medically Qualifying With Hearing Loss

When you apply for disability benefits with hearing loss, the SSA compares the severity of your condition to its own medical guide known as the Blue Book. The Blue Book lists exactly how severe your hearing loss must be to be eligible for disability benefits. Hearing loss can be found in both the children’s and adult versions of the Blue Book.

The Blue Book listing for hearing loss is found in Section 2.10. (Please see hhf.org/winter2017_references for a link to this section of the Blue Book, along with other references cited in this story).

For hearing loss not treated by cochlear implantation, medical tests must show one of the following criteria:

• You have an average air conduction hearing threshold of 90 decibels (dB) or greater in your better ear. You also must have an average bone conduction hearing threshold of 60 dB or greater;

• OR you have a word recognition score of 40 percent or less in your better ear.

If you’ve received a cochlear implant, you are considered medically disabled by the SSA for one year after the surgery, and then the SSA reviews your case. If you have a word recognition score of 60 percent or less determined using a specific test, you still qualify for benefits. If your hearing has improved, you no longer qualify.
A cochlear implant is only “automatically” disabling after surgery. Before surgery, you need to meet one of the SSA’s other criterion.

A separate part of the Blue Book, Section 102.10, addresses pediatric hearing loss. Children under age 5 must have an average air conduction hearing threshold of 50 dB or greater in their better ear. Between the ages of 5 and 18, your child must have medical records showing one of the following:

• An average air conduction hearing threshold of 70 dB or greater in the better ear, plus an average bone conduction hearing threshold of 40 dB or greater;
• OR a word recognition score of 40 percent or less in the better ear, determined by using a standard list of phonetically balanced single-syllable words;
• OR an average air conduction hearing threshold of 50 dB or greater in the better ear, plus a marked difficulty in speech and language.

If your child has a cochlear implant, he or she is considered medically disabled until age 5 or one year after implantation, whichever is later. After your child turns 5, or 12 months pass since surgery, your child must demonstrate a word recognition score of 60 percent or less on the Hearing in Noise Test (HINT or HINT-C) to stay on SSI.

Applying for Benefits

If you are interested in applying for disability benefits due to your hearing loss, your first stop should be the SSA’s website (ssa.gov). The SSA has guides outlining exactly what paperwork and personal information you’ll need.

If you are applying for SSDI, you can complete the entire application online. This is the easiest way to apply for disability benefits, as you can save your application and return to finish it at a later time. Be sure to list your spouse and any children under age 18, as they could receive benefits as well if your SSDI application is approved.

Deanna Power is the director of outreach at Social Security Disability Help (disability-benefits-help.org), which is not affiliated with the Social Security Administration. Email questions to her at drp@ssd-help.org. For references, see hhf.org/winter2017_references.

Share your story: Are you unable to work due to a hearing condition? Tell us at editor@hearinghealthmag.com.

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Ringing in the Ears?

Lipo-Flavonoid® Plus is a natural bioflavonoid product that has been used and studied extensively for decades. It is a safe, often effective product that can provide relief to people who suffer with ringing in the ears. It has long been thought that poor inner ear circulation is a contributing factor in tinnitus. Lipo-Flavonoid Plus provides nutritional support to improve circulation in the inner ear.

Tinnitus is a condition that has a number of contributing factors and causes, and there is no known treatment that will bring complete relief to all sufferers. However, Lipo-Flavonoid Plus has been shown to provide relief for some people who suffer from tinnitus. While Lipo-Flavonoid Plus may not work for everyone, we stand behind our product, our history and our results. If you don’t find relief from ringing in the ears with use of Lipo-Flavonoid Plus as directed for 60 days, we will refund your purchase.

Learn more & download a coupon at www.lipoflavonoid.com
“Captioning on phones is free, supported by state and federal governments. And you may qualify for a free phone, too! A captioned phone works like any other regular telephone with one important addition: It displays every word the caller says throughout the conversation. On my Sprint CapTel phone I can listen to the caller and also read the written captions in the phone’s display window. “

“You can also make a call through Sprint WebCapTel, which is a free web-based service that lets me read word-for-word transcriptions of my calls on a computer monitor, laptop, or tablet. I can also listen to my caller speaking through any telephone, including cordless, landlines, or cell phones. At work I use this service not only to place and receive calls but also to participate in live meetings that take place over the web, like a webinar. I can view documents and applications via my computer while the shared audio allows for presentations and discussion.”

—Cindy Suárez cowrote “The Silver Linings Storybook” and is an integrative nutrition health coach and licensed clinical social worker. (sprintcaptel.com/solutions-by-sprint; sprintcaptel.com/solutions-by-sprint/sprint-webcaptel)

“I have experienced a huge increase in understanding what is being said.”

—Lise Hamlin is the director of public policy at the Hearing Loss Association of America. Please note this comment is her personal opinion. (harriscomm.com/clearsounds-professional-office-neckloop-system-with-il95-phone-amplifier.html)

“Keeping up with a conference call means struggling with rapidly alternating speakers, different voices, and changes in volume. The captioned conference call can help. While not available in every state yet, the list is growing (check nasratrs.org). Like traditional captioning services, it requires a captioning phone and internet connection.”


“For my office phone, I use the ClearSounds Professional Office Neckloop System, which combines an in-line amplifier with volume and tone controls and an amplified neckloop with a microphone. I can put the handset away and sit back and listen. I am no longer tightly tethered to the earpiece that, during conference calls, I would normally end up smashing against my hearing aid for hours. “

—K.M. (realtimetext.org/rtt_in_detail)

Workplace Workarounds

Our readers recommend technology and other tools that they use to better perform their jobs. Bonus: Many are free!
Reconnect.
Captions for your phone calls.
Sprint CapTel® and WebCapTel®

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“Ava is a free voice-recognition system used for in-person conversations. Two or more people log on to the app on their smartphones. I’ve used it with up to six people. Voices are simultaneously captioned on each user’s phone, color-coded by speaker. I’ve tried it in all sorts of situations, even enjoying a nice conversation with someone in the dog park. If you can understand someone over yapping dogs, it’s a good bet you’ll be able to follow an office conversation.”
—Katherine Bouton is the author of “Shouting Won’t Help” and “Living Better With Hearing Loss.” She writes for the AARP website (from which this is adapted by permission) and is a member of the Board of Trustees of the Hearing Loss Association of America. (ava.me)

“My solution for hearing single or multiple speakers, whether nearby or across the room, is the Phonak Roger Pen. This portable microphone is about 6 inches long and shaped like a pen, so it’s pretty discreet. The buttons take some getting used to but once you know how, it’s a dream. I just point it directly at a speaker to hear better and it transmits the sound wirelessly and directly to the FM receiver in my hearing aids. In meetings, I have given the Pen to the person speaking to wear like a lapel mic or placed in front of them.”

“Video chat services—such as Skype, Apple FaceTime, Google Hangouts—are free. Using my laptop’s webcam, I can see and talk with coworkers and clients, allowing me to speech-read and use other visual cues.”
—C.S. (skype.com, apple.com, hangouts.google.com)

“I have a hearing loss from years in the service. ZVOX Audio makes it easy to hear TV dialogue again! I don’t need captions or a high volume. Setup is only one cable, and it even works with our remote control!”
—E.V., via Facebook survey. (zvoxaudio.com)

“I needed earplugs that protected my hearing on the work site but still let me hear what my foreman is saying, so I use Fluxx Audio’s Passguard, which are customized to my ear shape. I carry them everywhere.”
—M.T., via Facebook survey. (fluxxaudio.com/passguard)

“I bring a supply of Energizer hearing aid batteries with me on every work trip. They are priced right, and the longer tab on each battery makes the tiny size easy to handle, especially if I need to replace my batteries in the middle of a meeting.”
—A.S., via Facebook survey. (energizer.com/batteries/hearing-aid-batteries)

“If you can understand someone over yapping dogs, it’s a good bet you’ll be able to follow an office conversation.”
—Katherine Bouton
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When it comes to conquering communication breakdowns in the workplace or elsewhere, technology is only one piece of the puzzle. The book “5 Keys to Communication Success” brings together the pieces necessary to improve communication if you or a friend, family member, or colleague have a hearing loss; if you wear hearing aids (or haven’t yet gotten them); or if you are a professional who works with older adults. Filled with strategies and organized in a straightforward, easy-to-understand way, this concise, 72-page handbook is essential for anyone hoping to overcome frustrating communication missteps. (5keys.info, see also page 19)

Communication is such an important part of our daily work lives. Don’t miss out on the connections just because your hearing aid battery stopped working. Keep the conversations going with long-lasting Energizer hearing aid batteries. With proprietary POWERSEAL Technology, Energizer hearing aid batteries deliver the long-lasting power you need and protect your device from damaging leaks (for up to one week after the battery is fully used). Available in a wide array of battery sizes and package counts, these batteries are great to keep at your desk, in your purse, or in your car. Stay in the conversation with the help of Energizer batteries! (energizer.com/batteries/hearing-aid-batteries)

Fluxx Audio provides custom service for hearing conservation programs to develop unique products to their needs. The level of hearing protection, situational awareness, and communication are configured based on the conditions in the workplace for optimum results. The onsite services for hearing conservation programs include noise assessment; fitting custom earplugs; documented verification of hearing protection for each individual; care and use training; and compliance training for hearing conservation program maintenance. (fluxxaudio.com)

RapidSOS Haven is a smartphone app that sends a user’s precise location, emergency type, and medical/demographic information to 9-1-1, while also allowing users to text 9-1-1 if they can’t have a voice conversation with dispatchers—a key feature for individuals with hearing loss or tinnitus. Haven also has a Family Connect feature that lets you see the real-time location of loved ones and call 9-1-1 on their behalf. We’ve partnered with HHF to provide one year of free access! (Learn more and sign up here: rapidsos.com/referrals/hhf/)

Audio industry pioneer ZVOX Audio has introduced the AccuVoice TV Speaker with built-in hearing aid technology. The small (17-inch) aluminum speaker uses advanced computer algorithms to isolate voices and lift them out from background sounds. The result is crystal clear dialogue, even at low volumes. The speaker is available in a consumer version (AV200, $249.99) or an audiology version (AV205, $349.99) that can be adjusted by hearing professionals to match an individual’s hearing impairment. (zvoxaudio.com)
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Recent Research by Hearing Health Foundation Scientists, Explained

Determining whether neuroinflammation is directly responsible for ear pain will open the door for new treatments for hearing loss and hyperacusis.

In fact, nerve fiber degeneration was still occurring six to nine months after noise exposure—nearly a third of the rat’s lifespan—and in brain regions where fibers were degenerating, there was evidence of long-term brain inflammation.

Since sensory nerve fibers—which perceive touch, temperature, pain, etc.—from the face, head, neck, and shoulders enter the cochlear nuclei, the long-term neuroinflammation occurring in this region could lower pain thresholds. If this is the case, much lower, moderate-intensity sounds of 60 to 80 dB may be sufficient to cause hyperacusis (loudness intolerance) with ear pain.

With funding from Hearing Health Foundation, thanks to a generous donation from Hyperacusis Research Ltd., my University at Buffalo team carried out a second study to investigate pain-related genes in the auditory pathway, the results of which were published in Molecular and Cellular Neuroscience in September 2016.

We measured noise-induced changes in the amount, or expression, of genes involved in the synthesis of proteins known to be involved in pain and inflammation in the brain. Interestingly, we found that intense noise exposure significantly altered the expression of six genes (Ccl12, Tlr2, Oprd1, Il1b, Ntrk1, Kcnq3) in the cochlear nuclei.

This suggests that noise-induced inflammation in the parts of the central auditory pathway that also process sensory information related to pain may, in turn, activate the central pain pathway—producing ear pain. Determining whether neuroinflammation is directly responsible for ear pain will open the door for new treatments for hearing loss and hyperacusis.

2015 ERG scientist Kelly Radziwon, Ph.D., is conducting postdoctoral work at the Center for Hearing and Deafness, University at Buffalo, State University of New York. HHF thanks Hyperacusis Research Ltd. for its support of studies examining hyperacusis and other severe forms of loudness intolerance.
A Noninvasive Way to Assess Neural Conditions in Cochlear Implant Users
By Ning Zhou, Ph.D.

When using cochlear implants, the auditory nerve is stimulated with a series of electrical pulses. The number of pulses delivered to the nerve per second defines the stimulation rate.

Animal studies have shown that guinea pigs implanted with cochlear implants are more sensitive to changes in the stimulation rate—and can therefore hear better—if the implanted ear is in better condition, biologically.

For example, guinea pigs with more surviving auditory neurons or residual hair cells show greater sensitivity, which means that as the stimulation rate increases, it is easier for these guinea pigs to hear the stimulus (a beep). But among guinea pigs who have poor sensory or neural conditions, an increase in the stimulation rate does not help them hear the stimulus.

As a result, this sensitivity to a change in the stimulation rate helps us evaluate, in a noninvasive way, neural conditions in humans who use cochlear implants. We published our results in The Journal of the Acoustical Society of America in September 2016.

This information may be used to design stimulation strategies that make the best use of locations in the ear with less severe damage, with the hope that eventually this will aid people who use cochlear implants to hear speech better in noise.

Investigating Synaptic Transmissions in the Inner Ear
By Isabelle Roux, Ph.D.

Sound information is sent to the brain via hair cells of the cochlea. The brain also sends signals—called “efferent input”—to the hair cells. These signals contribute to the development of the central auditory pathway and, in the mature cochlea, improve our ability to hear in noisy environments.

I have been investigating the complex mechanisms of efferent synapse formation and maintenance, with the long-term goal of developing approaches to modulate the presence of these connections and treat deficits in their function. My team studied the expression and function of a receptor crucial for muscle activity that had been proposed to have a similar role in hair cells.

Using a variety of approaches, we show that although this receptor begins to be expressed in hair cells at the time of efferent synapse formation, it is not necessary for efferent connections to form and be functional. These results were published in the August 2016 Journal of Neurophysiology.

2013 ERG scientist Ning Zhou, Ph.D., is an assistant professor in the Department of Communication Sciences and Disorders and the director of the Auditory Prosthesis Lab at East Carolina University.

2012 ERG scientist Isabelle Roux, Ph.D., is a researcher in the Molecular Biology & Genetics Section at the National Institute of Deafness and Other Communication Disorders. For links to the three papers, see hhf.org/winter2017_references.
A Better Understanding of Sound Localization
By Yehoash Raphael, Ph.D.

When stimulated by mechanical energy such as sound, hair cells are activated and initiate a signal in the auditory nerve. The signal is circulated to the brain where it is interpreted, eliciting hearing. When the hair cells degenerate, hearing is impaired. Exposure to very loud acoustic energy can kill these hair cells, leading to hearing loss.

More recently, it became clear that loud signals can also damage the connecting interface between the hair cell and the auditory nerve. This interface is the synapse. When the synapse is disrupted, hearing is impaired even without the loss of hair cells, leading to a condition called synaptopathy.

Experiments using transgenic mice showed that elevating levels of a specific molecule called NT3 in the area of the synapse can heal synaptopathy caused by exposure to loud noise. Since transgenic technology is a research tool not applicable for clinical use on humans, it is now necessary to design methods for elevating NT3 in human ears, leading to repair of synaptopathy. This is an important task, because if left untreated, synaptopathy progresses to include nerve cell death and permanent hearing deficits.

One potential way to increase NT3 concentration in the cochlea is by the use of gene transfer technology, which is based on infecting cochlear cells with viruses that are engineered to secrete NT3 and not cause infections. A potential risk of this method is that the site of NT3 is not restricted to the area of the synapses affected by the synaptopathy; NT3 can influence other types of cells.

In my lab at the University of Michigan, we tested the outcome of injecting such viruses on the structure and function of normal (intact) ears. We determined that the procedure resulted in the deterioration of hearing thresholds, and that the auditory nerve and its connectivity to the hair cells were also negatively affected.

This negative outcome indicates that treatment of synaptopathy should be based on a more specific way to provide NT3 in an area restricted to the synaptic region. My work with the Hearing Restoration Project is dedicated to optimization of gene transfer technology in the cochlea, and may assist in finding more detailed methods for NT3 gene transfer that better target affected cells.
I was born in Chandigarh, India, in late 1989. I lost my hearing to jaundice a couple of days after my birth, although several doctors had pronounced me a healthy baby. As time passed, my parents and relatives began to notice I wasn’t responding to sounds. My parents took me to an ear, nose, and throat specialist when I was a year old, and I was diagnosed with profound hearing loss.

It was shocking news, as there was no history of hearing loss in my family; I was the first person in my entire family. During my early years, my parents didn’t receive any support from their community in India, including healthcare providers and educators. They were told a thousand times that I would never speak or live independently.

Due to that community’s attitude and lack of knowledge about hearing loss, it took them five years to find a solution for me, which caused a delay in my developing communication skills. (Even though I was fitted with hearing aids at age 2, the technology wasn’t advanced at the time, so it didn’t help me much.) My parents eventually heard that there might be a better opportunity for me in America. After moving to Michigan, where some of my relatives were already living, I started to speak when I was 5.

Since I was just a baby when I lost my hearing, it didn’t affect my outlook on life. It is just a part of me and it’s all I’ve ever known. Obviously, it
During my senior year of college, I went through several job interviews and always disclosed my hearing condition after securing the first interview. I had no other choice, as I couldn’t communicate via phone. The interviewers were cooperative, and most of the interviews happened through Skype video conferencing. It helped me answer their questions, as I was able to see faces and communicate well.

wasn’t easy for me to get to where I am now, due to many obstacles that were thrown at me throughout my life. During school, I used an FM unit, a device that helped me hear the teacher over background noises. I always sat at the front of classes and had a note-taker, as I couldn’t write and listen at the same time.

Hearing aids helped in certain areas such as hearing environmental sounds, voices, and music. But due to my hearing loss, I was unable to distinguish the differences in sounds, so I relied on visual cues such as body language and lipreading (speech-reading). Being the only child with hearing loss in my community had its challenges: My school life wasn’t that great, I felt isolated most of the time, and most of my friends and teachers back then couldn’t understand the challenges that I faced daily.

But these issues did not prevent me from achieving notable milestones. I was a competitive tennis player from the age of 9 and played tournaments all over the U.S. I played for the school tennis team and became captain my senior year of high school. I studied incredibly hard to ensure that my grades were perfect, or close to perfect. Due to my hard work and countless hours of studying, I ended up getting both a Presidential and an athletic scholarship to attend Wayne State University in Detroit.

During my senior year of college, I went through several job interviews and always disclosed my hearing condition after securing the first interview. I had no other choice, as I couldn’t communicate via phone. The interviewers were cooperative, and most of the interviews happened through Skype video conferencing. It helped me answer their questions, as I was able to see faces and communicate well.

Immediately after graduating I landed a job at JP Morgan Chase in Tampa. The first week on the job, I requested a real-time captioning device for meetings via phone. I am now using a product called CaptionCall, which is efficient and sufficient most of the time. I also request meeting minutes and other printed materials, so that I can be on the same page as everyone else.

Hearing loss may appear as a disability to most people, but speaking for myself, my hearing loss is a huge part of my identity. I can honestly say that it has shaped me into the person I am now—a strong person. Because of this, I am forever grateful for it. The best advice I can give someone with a similar situation is this: Do not let a hearing loss stop you from accomplishing your goals and living life to the fullest. —

Medha Jha is an applications developer for JP Morgan Chase in Tampa, Florida.

Share your story: How have you handled a hearing loss at work? Tell us at editor@hearinghealthmag.com.
A young woman born without eardrums, and who hears thanks to multiple surgeries, finds her calling in helping others.

By Carter Ashforth, with Elizabeth Bacon and Meg Ashforth

My Aunts Elizabeth and Meg and I were all born with typical outer ears but without an ear canal or eardrum. This is known as aural atresia. All three of us have benefited from surgery to give us hearing, an extraordinary procedure during which a skin graft from the arm is used to create an ear canal and eardrum and the ear bones are manipulated.

We have each undergone multiple procedures, sometimes with complications. However, in talking to my aunts, we agree we would not give up being born with this condition, in any way.

Aunt Elizabeth, the oldest of six siblings, underwent surgeries as a very young child, at a time when the procedure was fairly new. Throughout her childhood and young adult life, she experienced complications such as ear infections and the deterioration of her hearing. After years of hearing loss, she eventually got a bone-anchored implant in one of her ears, and is considering getting one for her other ear. Aunt Elizabeth followed various career paths—including a stint as a newspaper reporter in an attempt to force herself to hear better! Now she works as the community coordinator for The Clemente Course in the Humanities in Worcester, Massachusetts, which provides low-income adults access to college-level courses.

Because of Aunt Elizabeth’s surgical complications, my grandparents wanted to wait as long as they could for the technology and procedure to improve for their youngest child, Aunt Meg. As a result, Aunt Meg used hearing aids into her teens, which worked well but were uncomfortable. They were bulky and worn with a strap around the head like a headband. After her surgeries, in her early 20s, Aunt Meg experienced few complications, although as an adult she has started wearing hearing aids again. As for her work, she has always found meaning in teaching.
If you met either of my aunts today, you would most likely not notice their hearing loss or hearing devices. You would notice their strength, compassion, and graciousness. It was probably these things that gave my parents comfort when I, their eldest child, was born in 1991 with aural atresia in both ears.

After much research, my parents decided to take me to Robert A. Jahrsdoerfer, M.D., at the University of Virginia, for surgery. I call Dr. J my miracle worker (in fact Dr. J, who passed away in 2014, had undergone training with the doctor who performed my aunts’ surgeries). Starting from when I was 5 years old, I have had six surgeries at UVA, most before age 10, as my body and ears grew. My most recent surgery was in August 2013; it was performed by Dr. J’s successor at UVA, Bradley W. Kesser, M.D.

Today, at age 25, I have almost typical hearing and perfect speech, and have never once hesitated to pursue or do something because of my condition.

I have limited memories of the actual surgeries, but what has lingered is a vague sense of an inexplicable void. My mother clearly remembers hearing me say, “I will never be whole,” as we were driving home after one of my early surgeries. Now as an adult, I realize I have always been one to dive into a hobby, relationship, job, experience—often to my eventual detriment. I see now as an adult that this was driven by an aggressive, ambitious, and, at times, desperate attitude I developed to try to fill that mysterious, internalized void.

Never has this felt more apparent than during these past three years, since graduating with a degree in English from Gettysburg College in Pennsylvania. I was convinced I needed to work in the music business because music has always been a dominant force in my life, perhaps because I’ve always been on a quest to hear it better.

I moved to Nashville, Tennessee, with one goal—to help artists affect people the same way my favorite artists moved me. My disability rarely crossed my mind, but it should have, since I literally hear music differently. When someone tells me to play an A, E, or specific chord progression, my interpretation of the sound is not the same and I have trouble re-creating exactly what I’m being taught. I was also very conscious about preserving the hearing that I do still have, which meant wearing earplugs at every show and recording session. Plus, doing business on the phone, as I often did, was 10 times harder for me.

However, I was unfazed. My unwavering faith in my passion led me on a grand musical adventure. Over two years in Nashville, I worked with just about all of my heroes, accomplishing and learning more than I had ever predicted. Still, my life was missing something, and after some time I recognized that the real reason I moved to Nashville was less about spreading music and more about helping people.

As soon as I understood this, I started looking for a career that was a better fit. A few months after leaving Tennessee, I began working at Family Centers, a wonderful social services agency focusing on early care and education, healthcare, and self-sufficiency in Connecticut. Now, finally, I feel like I can channel my heart and energy in a productive and compassionate way.

Aunt Elizabeth says, “I think people are drawn to the careers they choose in order to investigate or come to achieve balance with some question that troubles them either wittingly or unwittingly.” I realized this provided an explanation to the many odysseys I explored in an effort to achieve “wholeness.”

Even though my aunts and I were born with this disability, we would never change one thing because it made us all who we are today. Being born without eardrums left this psychological void in me that I have spent my life trying to fill—even chasing a dream in Nashville—yet in the end it also gave me an extraordinary amount of passion and energy that I now pour into a career I find truly meaningful and rewarding.

Carter Ashforth lives in New York City.

Share your story: How has a hearing condition informed your career? Tell us at editor@hearinghealthmag.com.

Support our research: hhf.org/donate
This is the sixth of eight columns from Clarke about children with hearing loss, their families, and the professionals who serve them.

Today, thanks to newborn hearing screenings, it is possible for deafness to be detected in a matter of hours versus years. Babies can be fitted with digital hearing aids as young as 1 month of age, and intensive speech and language therapies can help build a solid foundation for children who are deaf to learn to listen and talk.

Just a few decades ago, 80 percent of children who were deaf or hard of hearing attended special schools. Today, 80 percent of those children attend mainstream schools alongside their typically hearing peers. Teachers of the deaf travel to mainstream schools daily to ensure these students are given the best possible chance for success in what may be a challenging and completely new setting.

These “itinerant” (traveling) teachers work with both students and teachers. Before the school year begins, itinerants provide classroom teachers with strategies to help students with hearing loss learn more effectively.

It is not uncommon to find teachers who have never seen a cochlear implant or digitized hearing aid. Itinerants train teachers and often the entire professional staff on how to use and manage hearing technology. They’ll review the workings of a cochlear implant or a hearing aid. They’ll also provide training on the FM system, where the teacher wears a small microphone/transmitter around the neck that sends signals directly to the child’s hearing device.

Once school starts, itinerants are a consistent presence. Because many students with hearing loss can listen and converse well, teachers and parents don’t realize how quickly they can fall behind. Itinerant teachers can help tease out the root of a problem and offer a simple fix before it morphs into something more serious.

For instance, a classroom teacher may think a student has a behavior or learning issue, when in fact he has a hearing issue. With a quick scan of the room, the itinerant teacher would be able to point to the student’s chair, placed too close to a humming computer or near a noisy hallway. For students with hearing loss, those sounds (unnoticed by most) may be a major obstacle to clearly accessing their teacher’s voice.

A big part of the itinerant teacher’s work is to help students with hearing loss strengthen their awareness and self-confidence—in and out of the classroom. Not only do they help prepare students for classes they may be struggling with (providing background information, context, and vocabulary), but sometimes they’ll provide coaching for a challenging social situation. This is because all students with hearing loss work harder than their peers with typical hearing in all situations.

A student’s attitude may be misinterpreted as disinterested, when in fact she may be experiencing listening fatigue. Itinerant teachers will often recommend proactive “listening breaks” to help ward off fatigue. For a young student, that might mean taking a quick walk to the water fountain; for an older student, going to the library for a brief visit. Simple suggestions like these can make a world of difference between students with hearing loss who are just catching up versus those who are keeping up—and thriving.

Next: Socialization. Read previous Clarke Corner columns at hearinghealthmag.com.
TIPS FOR USING HEARING AIDS AT WORK

PEOPLE WITH HEARING LOSS OFTEN struggle to understand speech from a distance and speech in background noise. In busy workplaces, especially those with open floor plans, this can be challenging. Here’s how to optimize your hearing ability in the workplace.

1. Take advantage of hearing aid accessories.

Many hearing aids can be paired with a microphone for the purpose of streaming speech directly to your hearing aids. This microphone can be worn by coworkers or clients during meetings to amplify their voices and give you the best access possible to speech sounds and aid in your understanding of the meeting at hand.

Use of an amplified telephone or a telephone with captioning can help with understanding over the phone. Some hearing aids also connect directly to a smartphone to stream calls and help in understanding what is being said.

2. Keep backup batteries on hand.

When traveling for work (or leisure, for that matter), keep a supply of hearing aid batteries you can easily access throughout the day in case your battery dies. There is nothing more distracting than scrambling to find a battery during a busy conference session, or worse, having to go out and buy more batteries in an unfamiliar city!

3. Sit where you can see.

During meetings, position yourself where you can see everyone’s face to capture nonverbal cues and to speech/lip read. Additionally, sit away from sources of distracting background noise such as fans, air conditioning, music, and windows. When you can, walk over to talk to a coworker face to face, making it easier for you to pick up on body language and speech cues.

4. Use printed materials as references.

Print out visual materials and review them beforehand. Not only will this help you follow the presentation, but it will help you fill in the gaps that may occur due to your hearing loss. Position yourself so that you can see visual aids, such as PowerPoint presentations, demonstrations, and training videos.

Written communication is also very helpful for people with hearing loss. Whenever possible, request that important messages be sent in a visual format, such as written directions or emails, as opposed to given over the telephone.

5. Tell your coworkers.

While it may seem intuitive, making your coworkers aware of your hearing loss is one of the most helpful steps you can take. A simple reminder to coworkers—to speak clearly, to speak up or slow down their rate of speech, to face you when speaking, and to rephrase rather than repeat when you miss something—is often all that is needed to bridge communication gaps.

By Emily L. Martinson, Au.D., Ph.D.

Emily Martinson, Au.D., Ph.D., practices with A&A Hearing Group in Maryland. She earned a Ph.D. in communication sciences and disorders from East Carolina University.

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pages 36, 37

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page 36

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pages 36, 37

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page 52

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page 35

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page 2

Can a chicken cure hearing loss and tinnitus? The answer, incredibly, is YES! Learn more at Hearing Health Foundation’s website and on page 15 of this issue.

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page 15

The mission of Hearing Health Foundation is to prevent and cure hearing loss and tinnitus through groundbreaking research and to promote hearing health.

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I’ve always been fascinated by tinnitus and how it largely remains a mystery. For instance, hearing loss and tinnitus are strongly related, but not everyone who acquires a clinical degree of hearing loss will develop tinnitus, and vice versa. We also have no way to objectively measure or diagnosis tinnitus, depending instead on a patient’s report. Many physiological changes have been shown to take place in tinnitus patients, including at the inner ear, brainstem, and cortical levels of the central nervous system (CNS). But ultimately it is the individual’s conscious perception of the phantom sound that impacts their daily life.

A recent hypothesis holds that tinnitus perception may arise from faulty “gating mechanisms” in the brain. In other words, the brains of some individuals may be unable to filter out or ignore irrelevant auditory signals generated by the CNS. Though it has been documented for many years in the field of neuropsychology, surprisingly, gating function has not yet been examined in tinnitus. If sensory gating differs in individuals with tinnitus, it may be possible to develop an objective clinical measure for this disorder and eventually inform treatment options.

When I was a child I had an anatomy book that I spent hours looking through, always curious about how systems function. After working as a research assistant in various labs throughout high school and college, I realized that the brain is the ultimate system, and that improved understanding of its function can positively impact people’s lives.

I experienced tinnitus in my left ear for three weeks as a graduate student. We were testing one another to pilot an experiment, and the sound was much too loud! My father had a repeat cholesteatoma (cyst), and a viral infection of the vestibular nerve, so he has a middle ear prosthetic as an ossicle replacement. I provided insights into the science while he shared the personal aspect of what patients go through.

Speaking with individuals suffering from tinnitus and/or hearing loss, as well as those with various neurological disorders, reminds one of the importance of research. It’s not about the grants or the papers. It’s about learning how to help people and improve their quality of life through the right kinds of scientific questions, leading to clinical breakthroughs.

Julia Campbell, Au.D., Ph.D., received the 2016 Les Paul Foundation Award for Tinnitus Research. We thank the Les Paul Foundation for its support of innovative research that will increase our understanding of the mechanisms, causes, diagnosis, and treatment of tinnitus.

We need your help in funding the exciting work of hearing and balance scientists. Please consider donating today to Hearing Health Foundation to support groundbreaking research. Visit hhf.org/name-a-grant.
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