

# *Designed for* **COMMUNICATION**



**Saving Independence and Relationships  
by Preserving Brain Hearing**

**Dr. Kalob J. Parsons Au.D., CCC-A • Audiologist**  
**Dr. Keith N Darrow, PH.D., CCC-A • Neuroscientist**



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Thank you to my daughter and nieces for letting me use their picture on the cover. Your picture is the most commented on in the office and gives me a daily reminder that even at such a young age our amazing brains are designed to communicate with one another and how our brain relies on the stimulation our hearing gives it.



Thank you to my family, staff and patients, without your love and support this book and our mission of bringing the best hearing care would still be a dream and not an action.

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# PREFACE

Today, approximately 48 million people in the United States suffer from hearing loss. Yet nearly 40 million of them go without treatment. This is why we wrote this book.

- Did you know that hearing problems, even at the mildest stage, can lead to social isolation and increase the risk of dementia?
- Do you want to remain independent and live an active life as you age?
- Do you or a loved one have impaired hearing?
- Treating hearing loss early helps preserve your ability to not only perceive the sound, but your ability to use the sound.

Keith Darrow Ph.D. & Kalob Parsons, Au.D., are practicing clinical audiologists. If you or a loved one have answered yes to any of the above questions, you are encouraged to read this book and learn how you can live a better, more active, more engaged, and healthier life as you age. For a combined 50 years, Drs. Darrow and Parsons have been helping patients and their loved ones break free of their hearing loss and live active, engaged lives—free of the worry, stress, and medical consequences of untreated hearing loss.

Hearing is what connects us to others, to our lives and our loved ones. Hearing is essential for every personal and professional relationship we have; it is the building block of communication.

Hearing is also one of the major senses; in fact, it is the single most important sense we have. Hearing plays a major role in our fight or flight, prey vs. predator, and history as human beings, and hearing today has the important role of keeping us communicating and connected with the world around us—at home, at work, and in our community. The importance of hearing was impressed upon Dr. Parsons when a nurse anesthetist taught him that they found hearing was still active when people were under anesthesia, even though the other senses are

not believed to be active. Actually, researchers did a reverse Jeopardy test where patients were told answers to obscure questions. (i.e. diastolic blood pressure of an African tree frog for 300 please!) When patients came out of anesthesia, they knew the answers. Even more impressive is when they applied this knowledge of active hearing and changed the sound environment in the operating room. Surgery success rates went up. To further support the claim that hearing is the single most important sense we have, note that the fact that the organ of hearing, the cochlea (aka the inner ear), is embedded deeply in the skull, in the hardest bone in our entire body, the temporal bone, giving our organ of hearing the highest level of protection.

The doctors have put this book together to help you understand the dire consequences of untreated hearing loss and to introduce you to today's medical options for treating hearing loss. These options can not only help improve hearing but also enhance cognitive function, reduce the risk of developing dementia and depression, prevent falls, increase physical activity, and contribute to a happier and healthier lifestyle as you age actively.

Hearing loss has been listed by the Department of Health and Human Services as the third most common chronic health condition affecting seniors. Third! Hearing loss is estimated to affect nearly 50% of adults between the age of sixty to seventy years young, nearly 67% of adults between seventy to eighty years young, and the numbers only go up from there. As we live longer and science continues to increase life expectancy, we need to be best prepared to deal with this debilitating disorder and understand how it can impact our lives.

Our bodies are an amazing machine. You may be familiar with the song which describes how the “toe bone is connected to the foot bone, the foot bone is connected to the ankle bone, the ankle bone is connected to the shin bone”. Well, our ears are connected to our brain. By keeping the brain active through better hearing, you can live your best life, stay connected, live without tinnitus, and continue making wonderful memories.

# ABOUT THE AUTHORS

## Dr. Keith Darrow Ph.D.



My journey up to this point has spanned nearly thirty years of experience, progressing from student to clinician across multiple settings, and eventually working with the health department as an audiologist. Now, I operate in private practice as a provider and advocate for patients on a daily basis. I consider myself fortunate to have discovered my passion early in life, allowing me the privilege of working with patients and their families every day as they embark on the journey toward improved hearing and clarity.

I had a friend whose parents worked for a nursing home, and I became fascinated by the field of speech pathology. As I progressed through my college classes in speech pathology and audiology, I came to realize that my true passion lies in helping people regain their lives through better hearing.

Since I experienced numerous ear infections and underwent ear surgery during my teenage years, I discovered my purpose in life: to understand individuals' hearing challenges, help them comprehend their hearing issues, and enhance communication in their daily lives. This journey has been a marvelous experience.

Another area of interest for me has always been understanding how the brain works. As a doctor of audiology with years of experience in improving people's hearing, I possess a unique perspective on the brain's interaction with sound and its connection to overall health, well-being, and cognitive function. I also recognize the importance of early

treatment for hearing loss, even before it becomes noticeable to you and those around you. Such intervention can significantly impact your overall health and cognitive function, potentially reducing your risk of developing dementia.

I know that I am blessed to have the capability of transforming lives and families every single day. Treating hearing loss is not magic. It is the perfect mix of science, experience, and the art of listening to people, which allows me and my team to use advances in the medical treatment of hearing loss, a technology treatment plan to stimulate the brain, improve cognitive function and mental health, and help adults remain independent. And the best part—it is simple for patients to manage, and it's more affordable than most people think.

## Dr. Kalob Parsons Au.D. Story



I have devoted 25 years to doing what I love—as a student, in hospitals, and in private practice. I am an extern supervisor for two universities. Multiple audiology doctoral students learn at our clinics, and I am an affiliate faculty member at Idaho State University. I also serve on an international manufacturer advisory council. My wife and I own a private practice where I am a patient advocate and a provider for audiology diagnostics, tinnitus treatment and best practice.

I was lucky to discover what I love to do and, as a result, I have the good fortune to work with patients and their families every day as they embark on the journey of improved hearing and clarity.

I began my journey with a passion for engineering and a curiosity about how things worked. After a year of college, I spent two years doing volunteer service and fell in love with helping others. I felt drawn to the health sciences, and though I loved learning how the body worked I had not yet found my passion. My apparently odd background in engineering and biology allowed me to take advantage of unique opportunities. For instance, I served as a research assistant and took a neuro-facial anatomy course with the dental program. It was there that I was introduced to my professional calling. The only other student, who was not in the dental program, was pursuing audiology. As he told me about audiology, I had this feeling come over me, and I had to know more! I knew it was right. Now I had to go home and tell my new bride that all those hours of volunteer work, and applying to professional schools were unneeded.

I came home to my sweet wife, a registered nurse, and excitedly told her that I needed to make a last-minute change in course and go into ‘Idiology’. That is right, I misheard audiology, and that confusion led my wife to look at me in shock, like she had just married a crazy man.

She sweetly said, “Kalob, we better pray about this!” We did, and that prayer and the joy I have found in my work has confirmed that this was the right decision for me ever since.

I have been very blessed to not only love my job but also to find my mission in life, bettering relationships through better hearing. It is my personal belief that when we leave this life, one of the few things that continue with us is our relationships. I find it to be an awesome responsibility and joy to do work that not only changes lives in this life, but possibly after this life as well.

My background has helped give me a unique perspective and drive in providing the best possible hearing treatment to my patients. I believe my audiology career has been filled with one miracle after another as I search and strive to provide the best possible hearing to all the amazing people who have put their trust in me. It was during this search for continual improvement that I was introduced to Dr. Keith Darrow Ph.D., and from that meeting, this collaborative project--this book--emerged. One of our business core values is that anyone we interact with is better off than when we first met. It is my sincere hope that the information you find in this book will leave you better than when you picked it up.

# CHANGING LIVES

## My Why Moment

Dr. Kalob Parsons, Au.D.

A lady comes into the office to start treatment of her lifelong hearing loss. She brought her youngest child, a 3-month-old, precious baby girl all bundled up and asleep in her car seat carrier.

At the end of the appointment, I asked her if she had any last questions. She reported that she was hearing a noise, and she didn't know what it was. I asked her more about it, and we identified the sound that she was hearing for the first time.

We lifted the cover off the baby carrier and found her little girl, awake and babbling to herself. We watched her for a minute, and then I looked over to see tears streaming down the face of this mother. She asked, "is this normal? Did my other children do this?" I affirmed that they did. She then uttered, "that is the most beautiful sound I have ever heard." I could no longer hold back my tears as well.







# INTRODUCTION

## *The Top 5 Reasons People Avoid Seeing a Hearing Care Specialist*

My name is Dr. Kalob Au.D., and I'm a private practice audiologist! When people hear what I do for a living they typically say, "huh?" or "what?". I've heard that joke a LOT! It's okay; I'm used to it. I even have a T-shirt making fun of it. The fact is, the less you know about audiology and treating hearing loss, the more reason you have to be afraid of it. Once upon a time, audiology meant one thing: big, heavy, ugly 'beige bananas' to be worn on your ear to make sounds louder. They were hard to put on, hard to adjust, and frankly, they were pretty terrible at doing anything other than making all sounds louder...this includes speech, background noise, loud ventilation machines, dogs barking, plates clanging, etc.!

For the majority of patients, wearing an old-fashioned hearing aid meant avoiding certain social situations, restaurants, family gatherings, playing with grandchildren, etc. Many people still cling to the unfounded notion that all hearing aids are created equal and perform the same way they did back in 1995! I was just getting started back then.... I remember those things.

The fact of the matter is that audiology and the clinical science of treating hearing loss is more than just hearing aids. But, how much more?

Audiology and the medical treatment of hearing loss is devoted to restoring an individual's clarity, restoring personal independence, improving cognitive function and mental health, and addressing the cognitive aspects of hearing loss that can increase the risk of developing dementia.

Maintaining proper hearing and cognitive health has a significant impact on an individual's life—including all of his or her family,

friends, and community members. Properly stimulating cognitive function and maintaining connections from the ear to the brain goes a long way in keeping a patient mentally competent, helping the patient remain autonomous, and helping keep at bay the mind robbing diseases associated with cognitive decline (i.e., Alzheimer's). Treating hearing loss is a wonderful investment with lifelong returns, and yet people still fear walking into a hearing healthcare provider's office for one simple reason—fear of the unknown!

Hey—it's okay to be worried about the unknown. We all have our reasons for avoiding the doctor.

For many, visiting a doctor of audiology is accompanied by many fears and anxieties. And for each patient, the experience is personal. There are reasons that patients typically wait seven years before being seen by a doctor of audiology and beginning treatment of their hearing loss. This list, *Top 5 Reasons People Avoid Seeing a Hearing Care Specialist*, has the most common conversations I have had with patients over the years about what took them so long to come into my office.

It is important to remember that the consequences of untreated hearing loss can negatively impact every part of your life. Untreated hearing loss significantly increases your risk of developing dementia and being dependent on others.

## **REASON #1 – The Patient Already Knows the Diagnosis Before They Even Step Foot in the Door.**

Individuals with hearing loss tend to wait nearly seven years before raising their hand and admitting they have a problem. Or perhaps it takes a family member nearly seven years to push his or her loved one through our office door! Either way, seven seems to be the “unlucky” number—I say “unlucky” because chances are very high that by the seventh year of experiencing the symptoms of hearing loss, significant damage has been

done to the auditory system, which can lower treatment outcomes. I try to explain to all my patients that hearing loss is a progressive degenerative disorder with neurologic involvement which undoubtedly requires early intervention. In lay terms, that simply means that your hearing will continue to degrade as you age, and the key to maintaining clarity and a higher level of hearing function (such as hearing in noisy environments) is to “catch it early and treat it early.”

I have empathy for the new patient who comes to my office to get his or her first hearing evaluation since grade school because I know, as does the patient, what the results will likely be. It is very brave for a patient to knowingly enter a medical office with the understanding that they are likely to receive the diagnosis of progressive degenerative age-related hearing loss, a disorder that is neither reversible, nor is there a cure. However, there are restorative treatments available that can help the patient stay connected at home, at work, in their community and that can help stimulate the brain, improve cognitive function, and even reduce the risk of developing dementia (more on the connections of hearing loss and dementia later in the book!). Treating hearing loss early helps preserve your ability to not only perceive the sound, but your ability to use the sound. It is not just hearing; it is brain health.

## **REASON #2 – The Patient is Not Sure of His or Her Insurance Coverage for the Procedures and Treatments Involved with Hearing Loss.**

Regardless of when you read this book and which administration is running our country, insurance is a complex world to attempt to muddle through, and when it comes to hearing healthcare coverage, it can be even more murky. BUT...nearly every insurance company I have come across allows for coverage of one diagnostic hearing evaluation per year by an audiologist (and more testing can be covered if medically necessary, i.e., if the patient notices a significant sudden change in hearing). We

consider a sudden loss in hearing an emergency and we recommend you contact our office immediately.

While most patients in the U.S. do not have “the treatment of hearing loss and tinnitus” as a covered benefit, some people do. Please have grace with your clinic because there are thousands of plans. Some insurances are very misleading in what they say they cover versus what they actually do. Our expert staff and the staff of other reputable clinics will work hard to give you accurate information.

In my many years of experience in the hearing healthcare field, I have watched firsthand as patient benefits for treatment of hearing loss have evolved—fortunately, I have seen a movement of more insurances offering hearing coverage. The best benefits are direct reimbursement benefits allowing you and your doctor the freedom to customize the most appropriate treatment plan for you. I have seen a few plans which fully cover treatment. Regrettably, numerous insurance providers fail to distinguish between hearing technology, akin to comparing a calculator to a computer. They mandate purchasing from a third party, which frequently constrains your options in technology and severely limits your access to follow-up care.

Our practice as well as any other reputable clinic should be able to educate you of your options and help guide you in getting the best treatment possible. We will even refer you to another trusted professional who works with that third party.

### **REASON #3 – Patients are Afraid of Being Sold Something.**

It’s like magic—once you turn the respectful age of sixty, you notice that the content of your mailbox seems to change. Nearly every week, perhaps a few times a week, you are “blessed” (I’m being sarcastic!) to have a full mailbox (both your physical and electronic mailbox) with

literature about ‘essential vitamins for seniors,’ ‘how to choose the right assisted living residence,’ ‘how to invest your retirement money,’ ‘join AARP,’ and ‘which digital technology widget is best for your hearing loss.’ YIKES!

Somewhere along the line, hearing healthcare started down the dangerous road of becoming a retail transaction. I’ve even seen some so-called hearing widgets sold at big-box retailers and chain pharmacies. I ask my patients, “if a colonoscopy was available at one of the big-box chains, would you take your loved one there to have it done? NO... so why would you treat your hearing loss there?”. It is certainly easy, ‘free hearing test’ and all, but the nature of a big-box store does not allow for the gold standard of care that everyone deserves. There is so much misinformation out there, I don’t blame the patient for sometimes entering the office thinking they are going to be “sold” something.

My best advice is to steer clear of anybody trying to sell you something (be wary anytime the hearing test is ‘free’). If we go back to Reason #1 above, the patient is likely already nervous because they know the medical diagnosis before ever even stepping foot in the office. Combine that with the fear of ‘being sold something’ and that makes for a pretty nervous patient with his or her guard up.

Unfortunately, much of modern medicine is turning into a commercial advertisement seen on TV that marginalizes the process of treating a medical disorder, and hearing healthcare is not immune to this. In my office, Better Hearing and Audiology, and in other Excellence in Audiology member-clinics across the country, our belief is in the medical evaluation and treatment of hearing loss.

I believe strongly that the proper medical treatment of hearing loss is best left to the clinicians specially trained to understand, diagnose, and treat your hearing loss.

## **REASON #4 – The Cost.**

### **Actual Cost**

We all know somebody, perhaps a family member or a friend, who has spent a significant amount of money on a hearing aid gizmo only to use it as a paperweight or to leave it in his or her sock drawer. And the reason is because the glorified over-priced amplifier that they purchased was never truly designed to improve hearing or clarity—it was designed to just make sounds louder. Even worse is when the patient has a good hearing aid but is working with a provider that has not tuned the aid to the patient’s hearing prescription. This truly angers me, and while I do believe that the patient plays a significant role in his or her healthcare decisions and follow-up care, the healthcare provider also must have a significant responsibility to the patient—even after the patient has left the office.

I have heard many horror stories about patients spending grossly elevated prices on a pair of hearing aid gizmos—YIKES! More often than not, this very high retail transaction very likely took place in one of the chain hearing aid sales shops with ‘free hearing tests’ And, sadly, all the patients got in return for their money was a hearing aid amplifier capable of making things louder.

I remember the first time I ran into this personally. I was fresh out of school over 20 years ago and on my way to my first hearing aid manufacturer training. We were picked up in a van with several other providers from sister clinics. As I and another audiology colleague excitedly traded stories of diseases found, hearing aids miraculously brought back to life and potential hearing and lives saved we overheard a conversation next to us. It was a hearing aid salesman bragging how he sold a set of aids for \$10,000. Remember this was over 20 years ago. In stunned silence I asked him, “why did you do that? Our target price is only \$5,200.” His answer stunned me when he blurted, “because I could

and look at the commission I will get!” It was shortly after that I started my journal of what I thought a hearing aid clinic should be like. It wasn’t too long after that, that both I and my audiologist friend left this “sales organization” to practice medical audiology.

When a practice and the providers are committed to the medical treatment of hearing loss, you can trust that you are in good hands.

I believe that a hearing specialist must meet the strict standards required. These are standards that my clinic and other Excellence in Audiology clinics have committed to.

I have always believed that the patient needs options to help him or her invest in proper hearing healthcare. A reputable audiology practice understands that for some people, the upfront investment in hearing healthcare can be prohibitive. I believe that patients must be provided with options. All Better Hearing and Audiology clinics will offer customizable plans to meet the needs of our patients. We have options from paying for what you need as you need it to even the more easily affordable membership plan designed to give our patients the best treatment possible with a low monthly membership price.

## **Hidden Cost**

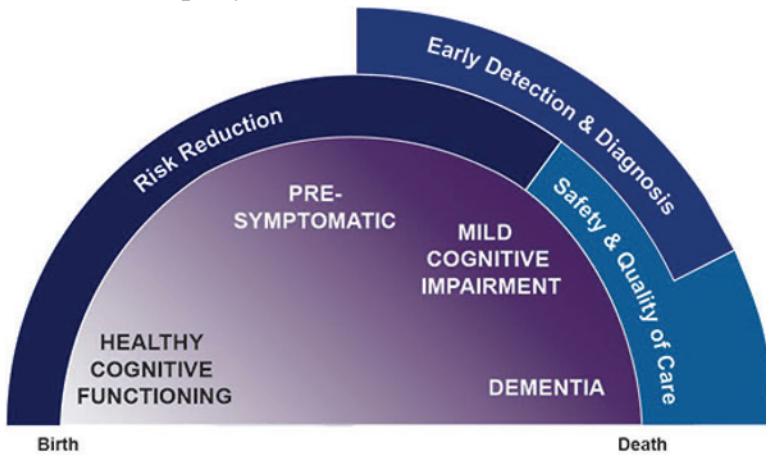
What about the cost of not treating hearing loss? While research has yet to make the definitive finding that hearing loss can cause dementia (causality is often difficult in clinical science), the evidence that the relationship exists is overwhelming. Hearing loss significantly increases your risk of dementia. Even more important is the mounting evidence that treating hearing loss may significantly reduce the risk of developing dementia.

Every day, 10,000 people turn sixty-five years young. This trend is expected to continue for at least the next fifteen years. And it is almost a guarantee that over the next fifteen years, science will continue to reduce

the mortality rate and increase the average life expectancy. As a result, our healthcare system will be pushed to its capacity to deal with diseases such as cancer, diabetes, cardiovascular disease, etc.

Perhaps the most prevalent, most costly, and most disabling of all diseases we will see sharply rise over the ensuing decades is dementia—the mind-robbing mental disease that interrupts and interferes with every aspect of life. Dementia is not a normal part of aging.

Every three to four seconds, another patient is diagnosed with dementia. Rates of dementia are estimated to triple in the next thirty years. Unlike the other diseases listed above, a physical body with dementia is estimated to outlive the individual’s mental capabilities by ten or more years! It is estimated that the average cost, per family, to manage the medical treatment and care of a loved one with dementia can exceed \$57,000.00 per year.



There is no cure for this catastrophic disease, but there are treatments available, including several ways to decrease your risk of developing dementia. In fact, a study published in *The Lancet* journal indicated the treatment of hearing loss as the single most effective means of preventing dementia.

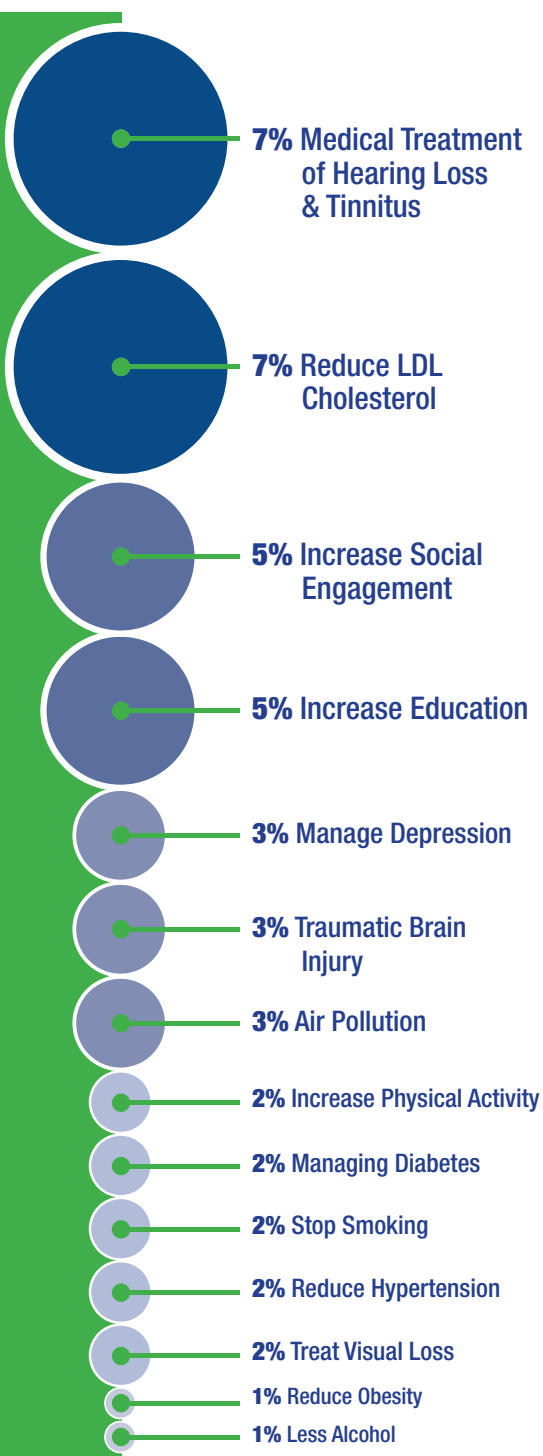


# PREVENTING DEMENTIA

The Lancet Commission on Dementia Prevention determined that 14 Modifiable Risk Factors may reduce the risk of Dementia by 45%.

**Treating Hearing Loss continues to be the #1 Modifiable Factor.**

Potentially Modifiable  
**45%**



Treating hearing loss is more effective at preventing dementia:

- Then if you reduce obesity, diabetes, alcohol consumption and heart disease and increase physical activity combined.
- 2 times more effective than increasing social engagement.
- 4 times more effective than reducing risk of hypertension or increasing physical activity.
- 8 times more effective than reducing the risk of obesity or diabetes.

Fortunately, although dementia is on the rise, there is a mountain of research suggesting that treating hearing loss, (ie. correctly fit, hearing aids that are maintained at prescriptive levels), significantly reduces the onset and risk of dementia. Treating your hearing loss is preventative healthcare

## **REASON #5 – Everybody HATES Hearing Aids.**

Let's be honest. Everybody hates hearing aids. In fact, when you make a reference to old-fashioned volume-enhancing hearing aids, I think you could go as far as to say, "some hearing aids are horrible!" There you have it—I said it! Dr. Darrow has been working with hearing-impaired patients for close to thirty years and myself for close to twenty-five and although our patients love improved hearing, they hate their hearing aids. There is no reason to tiptoe around this subject or ignore the fact that patients generally do not like using hearing aids. Nobody wants a medical disorder that requires physically tethering a device to his or her body to treat the medical condition. They don't like their glasses either, but they do like to be able to see! (Although I do know some people who wear non-prescription glasses because they feel that they look "cool"). There was a time where people who wore glasses were sometimes referred to as "four-eyes" or other derogatory terms—fortunately, glasses are now commonplace for people of all ages. Dr. Darrow has a friend who started

wearing glasses as a teenager and says he did NOT look cool. But he did like being able to see the leaves on trees. Who knew?

For some people, hearing aids carry the stigma of meaning “I’m old and ready to die.” And nearly every day I see a patient try to tell him or herself not to invest in hearing healthcare treatment because “eh, I won’t be around much longer anyway.” My response is always the same - to ask them about the quality of life they want to experience and if they want to remain connected to their loved ones and the world around them. No matter if they live for a few more years, or even thirty more years (which is not unreasonable to expect from my fifty-eight-year young patients), isn’t it worth wanting to hear and understand everything and everyone else in your life? I also point out to patients that they will appear to look much older if they continue to say “what?” or “huh?” all the time or, perhaps even worse, start to isolate themselves from life and the conversations around them.

I respect that patients don’t want to use a hearing aid, whatever the reason may be. Any reputable hearing healthcare provider will realize this also and understand the difference between traditional hearing aids and a Technology Treatment Plan. Features in the Technology Treatment Plan are specifically designed to treat the medical condition of hearing loss, improve cognitive function, and improve overall quality of life. As an added benefit, our Technology Treatment Plan is incredibly discrete and comes in several invisible styles (more on invisible hearing loss treatment options later in the book).

# CHANGING LIVES

## My Why Moment

Dr. Jenna Raff Au.D.

The first infant that I diagnosed was initially misdiagnosed for hearing loss when tested at another clinic. Her hearing was diagnosed as normal after failing two hearing screenings in the hospital in both ears. She was retested here, and I found a moderate to severe hearing loss in both ears. She was fitted with hearing aids and immediately started smiling and giggling to her parents' voices. It's not every time that the child reacts positively because it can be overwhelming to hear for the first time. However, with this infant, we were reassured that despite her missing so many sounds, hearing her parents for the first time made a profound difference to her.

She has come back for follow-ups and whenever the hearing aids are taken out of her ears to be checked and put back in, she starts smiling and babbling as soon as she can hear again. This is one reason why I love what I do - making a difference to the development of babies and helping their families.



# **PART 1**

## **FINDING A HEARING HEALTHCARE SPECIALIST**



## QUESTION #1

### *Why is hearing so important?*

I believe most people can relate to my story (Dr. Darrow): I have watched my grandmother degrade as she crossed over from her seventies to her eighties. As she got older, her hearing got worse—and as the hearing got worse, her cognitive abilities declined. As a result, our ability to communicate with her was significantly strained. Although I had seen similar patients in my practice, this was my first personal experience with hearing loss correlated to cognitive decline (a/k/a dementia).

Communication is truly the basic building block of every relationship we have at work, at home with our loved ones, with our children, etc. Communication is a vital part of establishing and maintaining relationships. Watching my grandmother decline helped push me to be a better student, a better mentor, and a better clinician. As I started seeing more and more patients with dementia and how the use of good hearing systems helped them, I wanted to learn more about how hearing loss and cognitive decline were related. That knowledge has allowed me to advance my patients' care to the highest level and to understand new standards for testing and treatment protocol used in clinics across the country.

## QUESTION #2

### *What are some of the early signs of hearing loss, and when should I see a specialist?*

Hearing loss is typically a slow, gradual onset disorder that silently (pun intended) affects the individual. The most common symptoms experienced by most (perhaps not all) patients are difficulty hearing in background noise, tinnitus, and thinking most people mumble or speak softly! Most people who experience the initial symptoms of hearing loss do not even realize it is happening. It is far easier to blame the acoustics of the room, the volume of the background noise, or the person speaking (i.e., “they mumble”, “talk to fast” or my favorite “they no longer teach diction in school”) than it is to accept that it’s your hearing that is lacking. It is also difficult for many patients to rationalize the need for medical treatment of hearing loss because in some (ideal listening) situations (i.e., sitting at a table one-on-one in a perfectly quiet environment) may not be much of a challenge. But the truth is...

### **A Mild Hearing Loss is a Major Problem!**

The first symptom of hearing loss for most patients is difficulty hearing in complex listening environments. If you have this issue, take the time to reflect truly and deeply on your communication breakdown. I believe you will begin to recognize some of the initial symptoms of hearing loss. Are you having any difficulty when there are a few people at the kitchen table? Or when the kids come over? Or when communicating with your grandchildren? Or when you are at a social gathering (i.e., sharing a meal with friends and you can’t seem to follow the conversation, yet all the other people seem to be enjoying themselves and following the conversation)? It is in these types of scenarios when hearing loss can really start to rear its ugly head and you realize that you are no longer an active part of the conversation. The result is a slow retraction from



contributing to the conversation because you may feel embarrassed, and thus you continue to further isolate yourself and find yourself not truly engaging in conversations and relationships. And this is how even a mild hearing loss can really begin to impact your quality of life and relationships with others.

In addition to the importance of maintaining an active, engaged life with family and friends, early treatment of mild hearing loss is important for maintaining proper brain health. Simply put: ***Hearing Care is Health Care™***. Your hearing drives your conception of everything and everybody around you; thus, hearing is essentially driving cognition at all times. It's driving memory. It's driving your image of the environment around you. You don't turn hearing on or off; you can't close your ears like you can close your eyes. There really isn't a sense or portion of your brain that isn't connected to your auditory system.

And I believe this speaks to how important hearing is to live and to thrive. We are bombarded with sound at all times and the brain is constantly, in real-time, making decisions as to whether or not certain sounds are important, trying to figure out how to categorize the sound and if it is important to store away and remember it for reference at a later date. A mild hearing loss can take away significant portions of the auditory world around you—and is likely the reason behind why patients with untreated hearing loss are at a significantly higher risk of experiencing a devastating fall.

The lack of cognitive stimulation that accompanies even a mild hearing loss is also associated with cognitive decline and dementia. Our brains are designed for communication. Treating your hearing loss is brain health. Reports from Johns Hopkins Medical Center (and others) indicate that a mild hearing loss can increase the risk of developing dementia by 200% (up to a 500% increase for those with a severe hearing loss). A mild hearing loss can be a big problem.

Like every major medical condition, the key to successful management of the hearing loss disorder is early intervention. ***“Catch it early and treat it early!”***

Let’s get local. In 2023 Idaho is #8, Wyoming #3 and Montana #9 in the U.S. for prevalence of Alzheimer’s.

- 9.2% of people ages 45 and older have subjective cognitive decline.
- Older adults with dementia are two to three times more likely to fall.
- Alzheimer’s is the most expensive disease in America.

Dementia does not just affect the person with dementia but their loved ones as well. 23.4% of caregivers in Idaho are providing care to an individual with dementia.

- 65,000 family caregivers bear the burden of the disease in Idaho.
- \$1.8 billion (Idaho) is the value of unpaid care.
- 86% (U.S.) of dementia caregivers have provided care for over a year and 57% have provided care for over 4 years.
- Nearly 25% (U.S.) of caregivers are also caring for a child.
- 35% (U.S.) of caregivers report that their health has gotten worse due to care responsibilities as compared to 19% of non-dementia caregivers.
- 60% (U.S.) of caregivers rate their stress as high or worse.
- 31.1% (Idaho), 40% (U.S.) of caregivers report symptoms of depression.

## QUESTION #3

### *Why, and how, should I choose a specialist for my hearing loss treatment?*

I get this question so often that I developed a Top 10 List (although it's not nearly as fun as David Letterman's Top 10 Lists). This list can help a patient understand “why” they need to choose a specialist and “how” to choose the right specialist to trust with the treatment of their hearing loss.

#### **The Top 10 Things You Must Know before Choosing Your Hearing Healthcare Provider**

##### **❶ Are they a specialist?**

Hearing healthcare consists of both audiologists and hearing instrument specialists; both working towards the same goal—to help more people struggling with hearing loss. Audiologists are clinically trained hearing healthcare specialists, usually with doctoral degrees that require several extra years of training to provide the most thorough diagnostic evaluation and complete the most comprehensive treatment plans aimed at restoring hearing clarity. They are typically located in medical-type offices and are able to bill health insurance for diagnostic exams. Hearing instrument specialists are trained to give basic hearing tests and dispense hearing aids. They are typically located in retail-type stores that offer “free” hearing tests (for the purpose of hearing aid selection and sales - and not billed to insurance).

A specialist is someone who doesn't do the minimum but takes responsibility in diagnosing and treating your hearing loss. Surprise, big degrees and a bunch of letters behind your provider's name does not mean that you are getting good care. It doesn't mean you are seeing a specialist. Unfortunately, most providers, (hearing instrument specialists

and audiologists) have not really changed their testing from what they were doing in World War II. They do the basic beeps and repeat the words. My doctoral students are very proficient in World War II testing when they first come to train with me. I am going to share with you some of the highlights of my “welcome to the office but normal doesn’t cut it,” lectures that I give my students. I mention these points, because if your provider isn’t doing the following then they are not performing best practice, they are taking short cuts. They are not specialists.

Are you going to take responsibility for your patients and treat them or are you just going to do the basics and test them?

- If most patients’ primary complaint is hearing in background noise, then why is it not being tested? (85% of offices do not test this.)
- If hearing aids have up to 24-64 channels (think adjustable frequency regions), then why only test 6 frequencies? (Most providers only test every octave, and we are the only clinic in the area who tests above 8KHz.)
- If a patient can have up to an 80% loss of cochlear nerve fibers and still have “normal hearing” on the audiogram, then why does most of the profession only rely on the audiogram when there are more sensitive tests?
- If a patient has tinnitus, why does the vast majority of clinics not test it and treat it? Our clinic has the only certified tinnitus practitioners in the area.
- If hearing in background noise is the number one complaint with hearing loss, then why are most clinics not testing it?
- If hearing loss is the number one modifiable risk factor for dementia, why is cognition not being screened? (90% of offices don’t screen.)

Next surprise, our ears just gather and transmit the sound to the brain. The real hearing takes place in the brain. WWII testing is the minimum. Student's commonly express, "now I see why you do this; I would never have caught this!" In other words, if you were that patient, you would have been told everything is fine when it wasn't, and you would not have been helped because your provider wasn't digging in. They were only doing the minimum to meet state requirements to 'sell' a hearing aid or only doing tests that have a billable code for insurance. Patients routinely express, "this is the best and most thorough test I have ever had. I am so glad I came here."

A specialist is someone who doesn't do the minimum but takes responsibility in diagnosing and treating your hearing loss. A technology treatment plan should include auditory diagnostics, counseling, rehabilitation and likely the use of technology to properly stimulate and preserve brain hearing. This is a fancy way to describe how we normalize the way our brains process the incoming sounds in order to achieve maximum clarity, especially in background noise. A specialist does so much more than help you pick out a hearing aid.

Think of it like this: Imagine you're in a noisy room trying to have a conversation. Your brain works like a superhero, sorting through all the noise to make sure you can understand what someone is saying. But sometimes, it needs a little boost to make things clearer. That's where a specialist comes in. They're like expert helpers who can fine-tune your brain's superpowers, making sure you catch every word without getting overwhelmed by the background noise. So, it's not just about picking out a hearing aid; it's about optimizing your brain's ability to hear clearly in any situation.

## ② Does the hearing healthcare provider have a medical office (or a sales office)?

Do you want to receive the best treatment for you, or do you want to be sold something? Here are a couple of ways to tell if a clinic's focus is on you and the medical treatment of hearing loss, or if they are just pushing hearing aids.

First, when you read or view their advertisement, are you better for it? Have they educated you and made you a better patient? When you visit their website or look at their ads, are they trying to sell you a widget that magically solves all your problems or are they trying to teach you. A medical office that has your best interest wants to educate you. An educated patient is the best patient. They have better treatment outcomes, are more satisfied with their treatment and have a higher follow-through with their customized treatment plan because they understand. This understanding builds a mutual trust between the provider and patient. They are working as a team to get the results you want.

Look at a clinic's online reviews. Are they sincere reviews that share experiences or are they just stars? Nobody is perfect, but when things don't go well, a patient-centered office can shine. A clinic that views their patients as amazing, wonderful, noble souls has a very different feel to their reviews versus a clinic who views patients as "the public" or even worse as obstacles to overcome to get what they want. You should feel welcomed and wanted, not a means to an end.

Be wary of offices that focus on widgets (hearing aids). Their advertising usually includes "act-now discounts" on hearing aids. Offices that focus on widgets will often use words like "free" or talk about discounts. They will use ads that you could slap any clinic's name on, because it is all about the widget.

You can get widgets from lots of places. Just because an office sells a widget does not mean you will have the best outcomes. A good

technology plan will include hearing aids, but they are only part of the plan. Services are critical to success, you can get hearing aids from lots of places, but it is the services that make a clinic special. Their advertising should reflect the importance of services.

There is so much good that we do as an audiology profession. A clinic that is focused on the patient is intentional about working with that patient for the rest of their life. They educate the patient. They partner with them and their loved ones to treat the progressive degenerative disease of hearing loss.

### **③ Does the specialist think brain first?**

Everybody thinks “we hear with our ears,” and while that is partially correct, the process of hearing actually happens at the level of the brain. There are three areas of hearing: the ears, our processing, and finally our cognitive processes. The ears are amazing receptors that transform acoustic signals into nerve impulses. The processing and cognitive areas both take place in the brain. Auditory processing is what happens to those signals as they travel through the brain. This processing is what allows your brain to organize sound, to be able to use it and focus on what you want. Cognitive processing is what you do with the processed sound. It is your memory, your thought processes, how you work with the information, and how fast you work with it.

Today’s hearing loss treatments are far more than a simple “amplifying” device behind your ear. The neuroscience behind modern treatments is focused on all the mental stuff your brain does, like thinking, remembering, learning, and understanding things and the comorbidities of untreated hearing loss (comorbidity is defined as a disorder that co-occurs/is correlated to hearing loss). It’s basically how your brain processes information and makes sense of the world around you. If your clinician thinks hearing first and not brain first in his or her treatment plan, you are missing out on many long-term lifestyle benefits. Our

Technology Treatment Plan is aimed at restoring lost clarity, providing noise-canceling filters for noisy background situations, and soft-speech enhancers that emphasize the speech of those soft-speakers in your life. We test these three areas of hearing and have seen lives changed by focusing on the brain.

When searching for your hearing healthcare provider, make sure you find a specialist that understands the significant negative impacts of untreated hearing loss on your brain. Better Hearing and Audiology LLC is committed to thinking brain first in treatment plans, prescriptions, and protocols. To find a local clinician outside of the Idaho Falls and Rexburg area you can visit the website [www.ExcellenceInAudiology.org](http://www.ExcellenceInAudiology.org).

#### **④ Are they trusted by local physicians, and are they the local experts?**

Your primary physician or ENT (Ear Nose Throat) doctor is the expert for medical treatment of hearing loss, and a good audiologist will work jointly with them to identify where the hearing loss is occurring and if your loss can be treated by your physician or if it is not curable. In most adults (85 to 90%) the hearing loss is a sensorineural hearing loss or in layman's terms, a progressive degenerative disorder that is very unlikely to be treatable with surgery or medication, otherwise known as a permanent hearing loss. The medical treatment of this type of loss is treated by your hearing specialist. Although your physician may not treat the most common type of adult hearing loss, they see lots of patients who have hearing loss and should be able to give you a couple of recommendations of hearing providers they trust. Be sure to ask the physician why they recommend that clinic.

Unfortunately, I have had patients whom I have identified as no longer needing their hearing aids because we found a treatable cause of their hearing loss or even a wax build up. These patients should not have been fit with hearing aids. They were sold something, not treated. I



have also worked at the other extreme where patients have come back and given me a big hug and thanked me for saving their life. Now to be honest, all I did was catch something and refer the patient to the proper medical specialist who could help. This should be the minimum. I wish it was. You want a specialist who has your best interest in mind and the expertise to provide it.

Something I look for in an expert is to find someone who is passionate about what they do. After our providers have met our high standards of care with Technology Treatment Plans (one of my passions), we encourage them to find an area that they are passionate about and become an expert in it. A great way to tell is by what other patients have to say about them. Another is how the staff talks about the provider when you call. How do the reviewers talk about them? If you want the best care, find someone who loves what they do and is passionate about it. When you find this specialist, then you have found someone who has gone beyond working at a job but has found a professional calling in life.

## **Our Expertise**

As of this writing, I am the only certified tinnitus practitioner in the Idaho Falls area. I hold the distinction of being the first audiologist in the area certified by the National Council of Certified Dementia Practitioners. Additionally, I serve on an international manufacturer's advisory board and hold a position as affiliate faculty at Idaho State University. I also achieved the distinction of being the first audiologist in the area to earn a professional doctoral degree, Au.D.

One of our emeritus audiologists (Dr. Kim Briggs) started the pediatric testing in the area and helped develop our pediatric protocol. She was so passionate about newborn testing that she was actively recruited by a manufacturer to be a national/international rep. Our providers who have taken Dr. Briggs's pediatric mantle have undergone advanced training and instruction.

Another of our audiologists, Dr. Jenna Raff Au.D. is an affiliate faculty member at Idaho State University. If your concern is treating hearing loss or tinnitus, then you have found providers in the area that are not only local experts but national experts in their field.

We are trusted by and collaborate with physicians and other medical professionals from all over Idaho and regularly from Utah, Montana, Wyoming, and Colorado.

## **⑤ Are they Independent or under a manufacturer obligation?**

You want a provider that will recommend what is best for you, not what is most convenient for them. When other providers hear that we work with all the major manufacturers, we will commonly get the comment of, “but it is so much easier to just work with one or two.” Of course, it is more work for us, but easy for a provider is not the same as what is best for you. The focus should be on you, not them.

Manufacturers seek to control clinics as a way of securing market share of their hearing aids. It’s pretty easy to know what their focus is. Selling hearing aids. Less than 39% of all hearing aid clinics in the U.S. are independent. A significant portion of the 39% are under some manufacturer obligation, i.e. have a loan obligation paid off through sales of hearing aids, or a discount group that limits their offerings. Better Hearing and Audiology is locally owned and independent.

You want a treatment plan that focuses on what is best for you and your unique individual needs. I strongly believe that there is not one hearing aid that is best for everyone. I also strongly believe that the best treatment plan is created by the hearing specialist, the patient, and ideally involves the patient’s support network. It should not be mandated by some large corporation who is making a decision based on what is best for their books.

## **⑥ Does the clinician make you feel special and comfortable?**

When you meet with your hearing healthcare provider, the person you are trusting with your hearing healthcare, you need to be in a comfortable and welcoming environment. Each employee in my practice, Better Hearing and Audiology, understands the importance of hearing and the distress that can be involved with making the decision to treat one's hearing loss. In fact, all of them have family members who wear hearing aids (or should) or wear hearing aids themselves. The entire experience from beginning to end, including a welcoming staff, should be designed to help alleviate a person's feelings of anxiety or grief.

We believe every patient is special and must be made to feel that way every time they come to one of our offices in need of hearing healthcare.

## **⑦ Does the specialist have a great reputation?**

With the internet today, it is extremely easy to pull up ratings and reviews from patients. Simply go to Google and search for audiology reviews and ratings within your town. At the time of this report, my practice is the only practice in Idaho Falls with a 5-star Google rating and we have 1/3 more reviews than our closest competitor, approximately 100 more Google reviews. Of course, it helps that we have so many amazing patients who bless our lives daily. Don't be shy about asking for references—go directly to the source! You have the right to call any audiology office and ask for a list of references, including other patients and local physicians that have volunteered to help advise patients as they first enter the (sometimes overwhelming) world of hearing loss and to help patients understand rehabilitation experiences from the first-person perspective.

I feel so humbled and grateful by what our patients have done for us: volunteering to be on TV commercials, writing their congressman to be able to continue to work with us (thanks again to our Veterans for going

to bat for us), getting us to be a federally certified vendor, providing us with so many area contest votes, and even offering to help edit this book. Most of all for trusting us with their friends and family. We could not have become what we are today without the thousands of patients who have put their trust in us. **Thank You!**

## **⑧ Is your specialist a locally owned family business?**

I debated on this one because you can still get great care from a non-local business. If you can get that same care or even better care from a locally owned business, then you are investing back into the community. Obviously more of the profits stay here, but that is only part of the picture.

In my experience, many large corporations engage in some type of charitable giving, and some excel at it, accomplishing remarkable feats. However, local businesses are typically the ones supporting school events, community activities, scout troops, and other youth organizations. Local businesses are involved in meeting the community's needs that non-local businesses are not aware of. The people who make those decisions are not here to see the local needs. Let me give you some examples and brag on my wife and staff.

As a team, we decided that children's hearing, particularly newborns, is a priority, even though we operate at a loss for many of these pediatric appointments. It takes very expensive equipment to measure brain waves in response to sound. Yes, that is how we test newborns, and if we can get them treated by the time they are only a couple of months old, then the odds of them having normal speech and language development go way up. Treating pediatric hearing loss is one of the ways we are investing in the community. These are the babies of our friends, families, and fellow church members. Thank you to the thousands of patients who support us as a business, we would not be able to do this important work without you.

Another example is working with Vocational Rehabilitation. Vocational Rehabilitation invests in equipment and training individual workers so that they may be productive tax paying citizens vs. tax collecting citizens. Our policy is to try to break even and have worked out exclusive discounts with manufacturers for Vocational Rehab. I love the idea of giving a hand up and helping someone help themselves. I also feel like I am paying it forward for all the help they gave my dad after he was paralyzed in a motorcycle accident coming home from work at the Idaho Nuclear Labs.

Our focus is on giving patients the best hearing possible. It is on relationships. I have nowhere near the buying power of a certain big box store. We can't compete on price, so we beat them with better service, better expertise, better technology (unlocked), and better outcomes. I appreciate that patients are willing to invest with us for their hearing needs instead of just buying the cheapest hearing aid. Without your support, we wouldn't be able to support our local causes.

## **9 Does your specialist lock their hearing aids?**

About half of the hearing aid offices in our area lock their hearing aids. This means that only that office or group of offices can adjust the hearing aids YOU own. This means you are now forced to get all of your service from that office. Most patients have no idea that their hearing aids are even locked. This can be a big problem for our area since so many of our locals serve missions, move, or are snowbirds. All of our hearing aids are unlocked to make it easy to get help if you are not in a place where we can help you or need more help than we can provide through telephone or video conference.

## **10 Does your specialist provide custom care plans to make your hearing care affordable?**

Traditionally, hearing aids are sold with a large markup forcing you to pay a large amount of money upfront for services you may or may not need or even be around for. Now, for some patients, bundling a service care package into the upfront cost of a hearing aid is a great option, if they can afford it. Because of the providers' policies, frequently patients chose a 'hearing aid' for financial reasons and not based on what best meets their treatment needs. We have the most flexibility of all the clinics in creating a Technology Treatment Plan that is right for you.

### **Comprehensive Treatment Membership Plan (Most Popular):**

- Focuses on your best outcome, not the widget (hearing aid).
- Gives the best possible care at an affordable monthly payment.
- Start treatment for \$222 a month (on approved credit and using automatic withdrawal).
- A one-time lump sum payment is also an option.
- Price lock guarantee - you make the decision to continue every 4 years. If you are participating in the plan, your pricing will not increase for the next 4 years.
- All services included, such as tinnitus treatment, cognitive screenings, etc.
- Discount on assistive devices (i.e. custom electronic hearing protection, accessories, or musician ear monitors).
- Additional 4th year repair warranty, on us.
- You can return at any point in the adaptation period. We will part as friends, and you will receive a full refund for treatment received to date.

### **Unbundled, only pay for what you need as you need it:**

- This is what we originally became known for. It gives great transparency of costs.
- Some patients didn't come in for routine services because there was a cost every time they came in and they had poorer-than-needed performance.
- Good option for patients who are not consistently here. May be the best plan if you are moving, only in the area for a short time, and for those leaving on missions.
- Multiple levels of technology are available

### **Rental Program (exclusions apply):**

- Technology in this program may be used or marked by the manufacturer for this purpose.
- We are only able to offer this to a small number of patients. Exclusions apply.
- This is a program we first designed for our hospice patients who were not pursuing help because they only had a short time to live. Our motto is Better Hearing – Better Relationships. We couldn't think of a population that this applied to more.
- This is a month-to-month all-inclusive plan with no long-term commitment. Hearing aids are returned when the rental ends.
- We have options as low as \$25 a month for a pocket talker on up-to-premium technology.

## **Vocational Rehabilitation (exclusions apply):**

- Cost
- Hoops to jump through, such as paperwork, multiple meetings and typically a 6 month to 2 year delay.
- To order the technology at this discount we need a Voc. Rehab. authorization number.



## QUESTION #4

### *How early in life should I have my hearing evaluated?*

#### **The Simple Answer**

If you are over fifty, you should have your hearing evaluated.

#### **Detailed Answer**

I have tried to stress the importance of early diagnosis and treatment of hearing loss throughout this book and to each of my patients.

The American Speech Language Hearing Association, the American Academy of Audiology and the American Medical Association have all considered the recommendation of including “hearing evaluation/screening” between the ages of fifty to sixty years young. I have used the catch phrase “Ears and Rears” as my way of getting people to remember to have their hearing checked when they turn fifty (and of course, have a colon cancer screening too!).

Similar to going to your primary care physician every year, obtaining a baseline hearing test can help to better serve you and your clinician as a guide to the medical recommendation at current or future appointments. Obtaining a baseline evaluation and discovering that you have normal hearing never hurt anyone!

Regardless of age, if you are noticing any of the symptoms of hearing loss (e.g., difficulty hearing in noisy situations, difficulty hearing the TV compared to others), if your family is suggesting you get a hearing test, or if you have ringing in your ears (defined as tinnitus), then it is time to take the first step and have your hearing evaluated and discuss treatment options.

Unfortunately, waiting too long can significantly impact the expectations and outcome of treatment, and sadly every hearing healthcare clinician I know has a patient they have had to tell they waited too long, and the benefits of treatment will be minimal. In other words, the longer one waits to get treated for hearing loss, the less helpful treatment will be.

# CHANGING LIVES

## My Why Moment

Dr. Morgan Bowlin Au.D.

One of the most moving and touching experiences that I have had as a clinician was when I had a patient come in for an evaluation. She told me her entire case history, we walked through the testing together and by the end of my counseling the patient was in tears and told me, “this is the first time someone has ever listened to me, heard my concerns and cared about me in a doctor’s office before”. Not only did this touch me in the moment, but it resonated with me as I have felt those same feelings at doctors’ offices before. Because of this single patient, I do my best in every single appointment to make sure I intentionally listen to my patients, make them feel heard, and address their concerns and reasons for coming into the clinic.





# **PART 2**

**FIXING THE RIGHT THINGS  
AT THE RIGHT TIME**



## QUESTION #5

### *What will happen at the initial evaluation and consultation?*

#### **The Beginning**

A few days before your appointment, the audiology assistant will contact you to get more information about why you are visiting us so that we can better prepare for your visit. The assistant will obtain a brief medical history and answer questions about your appointment. You will also be reminded of the length of the appointment and the importance of bringing a loved one to the appointment.

At the appointment, you will be greeted by our front desk. We will gather any remaining paperwork and you will be shown where the cold drinks and comfort care menu items are located. After the hearing suite is prepared you will be escorted in. Then a more detailed history will be taken. We want you to share with us the reason you decided to start the treatment process with us. Do you have concerns or a family history of dementia or other cognitive concerns? Do you have concerns about diabetes, tinnitus, falling, and of course hearing loss?

Next your specialist care team will perform a thorough evaluation. This testing should include 3 areas:

1. Assess your risk of cognitive decline.
2. Establish your degree of hearing loss.
3. Determine the impact your hearing loss is having on your cognitive function.

(Although there are many strong links between hearing loss and cognitive decline, many hearing providers only perform # 2. (Establish degree of hearing loss.)

Your specialist will then educate you about their findings and diagnosis and present you with a treatment plan. **Due to the importance of this information, we ask every patient to bring at least one family member or close friend with them to review the diagnosis and treatment plan.** The involvement of a loved one (support network) greatly increases your success and your satisfaction with your individualized treatment plan.

Your report will include the following:

- Current stage of hearing loss.
- Dementia risk assessment.
- Fall risk assessment.
- Treatment recommendation.
- Treatment prognosis.
- Your next step in the treatment plan.

I believe an educated patient is the best patient. We want to answer your questions. We want you to understand why we do what we do. We want you to understand how the findings, diagnosis and treatment plan apply to you.

Although an individual with normal hearing can only imagine what it feels like to suffer from permanent hearing loss, gaining an understanding of the degree of hearing loss, hearing potential ability, and hearing handicap scores can help loved ones gain perspective on what the patient is going through and how much of a strain hearing loss can be.

Medical treatment of your hearing loss and tinnitus must be affordable without compromising treatment outcomes. As you read in the previous chapter, we have multiple options including a low-cost monthly membership plan. The average patient waits 7-10 years before admitting they have hearing loss. We don't want you to have to wait any longer to



treat this silent, major, medical condition that impacts every aspect of a patient's life: physical, social, emotional, and cognitive.

You should expect 1.5 hours for the initial consultation and examination. These test results will determine the medical treatment plan and help initiate the journey towards improved hearing clarity and cognitive health. We reserve time to answer questions, perform a thorough hearing examination and personalize your recommendation for a treatment plan. You deserve to have your hearing questions answered the right way, in a stress-free experience.

Our practice and our process are not for everybody. If you are just looking for a hearing aid, we are probably not the best fit for you. Although we believe hearing aids are often the foundation to a good treatment plan, only focusing on hearing aids is like building a foundation and not building a quality structure on top of it. Sound is the foundation, but hearing happens in the brain. We strongly believe that just having hearing aids is not the whole answer. Our treatment plans are designed to maximize your independence by keeping your social, physical, and cognitive decline at bay. Our patients want the best hearing and all the health benefits that come with it. They want to be as independent as possible and want to live life and be a part of the lives of their loved ones.

**HOW DOES THE EAR WORK?** So, because I am the “Hearing Doctor,” I always want to be sure patients understand how their ears work and how hearing is interconnected to their health. It is the ears' job to take in acoustic sound waves (all the sounds around us travel in invisible sound waves) and turn them into electricity which is how our brain and nervous system communicate. Sound goes into the ear canal and makes the eardrum vibrate. This is where the first energy change happens.

When the eardrum vibrates, the acoustic energy changes to mechanical energy. The tiny bones attached to the eardrum also vibrate and send the energy into the inner ear (the cochlea). The inner ear is a tiny, fluid-

filled space inside the temporal bone (remember, the hardest bone in the human body?). The inner ear is so small, the whole thing could fit on my pinky fingernail bed. As fluid is moving, the energy is now hydraulic, which causes the tiny “hair cells” to move inside the inner ear in the same fashion that seaweed moves in ocean tides. That movement makes the final change to electricity which then travels up the hearing nerve, (8th cranial nerve) and then to the auditory centers of the brain. How cool is that? Sound that goes into the right ear ends up in the left side of the brain, while sound going into the left ear goes to the right side of the brain, then the energy crosses over from each side to the other. That is how our brain tells where sound is coming from, and also helps us process speech in the presence of noise.

What an amazing process, and it all happens in milliseconds!! SO COOL!

Everything that I do in the exam analyzes how the sound is moving through all of the above processes so that I can figure out if there is a loss of energy somewhere that is resulting in your loss of hearing. If the problem is earwax, that can be removed. If the problem is in the middle ear, there may be medical or surgical treatments that are appropriate for you. If the problem is that the inner ear hair cells are damaged, then you may just need some extra sound stimulation that will help your brain get the sound that it is missing. This is why it is so important that you see a clinical audiologist so that your hearing loss is properly evaluated. In my many years of practice, I have unfortunately seen many patients that were “sold” hearing aids when their hearing loss could have been medically or surgically corrected.

So, now that I have nerded out, onto the exam. First, your audiologist will look into the ear canal to make sure the ears are free of any obstructing cerumen (ear wax). This is most often followed by a procedure called tympanometry that can rule out any medical condition causing hearing loss involving the eardrum and/or the space behind it, including those tiny middle ear bones (the “Hammer, Anvil, and Stirrup”).

## **The Beeps!**

From there, it is important to establish the degree of hearing loss (ranked from stage 0 to stage 4). Using the “raise your hand when you hear the beep” may conjure memories of having your hearing screened at school, but it still serves a purpose: establishing the degree of hearing loss. If the person only tests you using beeps and makes a recommendation for treating your hearing loss...I advise you to run as fast as you can! The information gathered from this test, although important, is only a piece of the puzzle.

## **The Words!**

The most important testing we will perform is designed to assess your cognitive hearing, e.g., how well you understand words in quiet and with background noise (after all, nobody comes to the office complaining that they can't hear beeps!). This line of testing will truly help your clinician understand how well you hear and how well you process words and conversation.

Testing a patient's ability to hear words is often referred to as “Word Discrimination Scores/Ability.” First the patient is asked to repeat a list of words at a near-normal conversational volume. Individuals with normal hearing will always correctly repeat between 96-100% of the words on this test. Individuals with hearing loss will not score nearly as well. For example, many people with a mild to moderate age-related hearing loss will typically score between 50-60%—thus the patient is expected to miss 40-50% of what is said to him or her on a daily basis (especially when visual and contextual cues are removed and only hearing is utilized).

The next test is a repeat, almost exactly as just described, but performed a second time at a volume and clarity setting ideal for the specific patient's hearing loss. The result of this second round of word testing is referred to as the patient's “Hearing Potential Score.” Most often the patient who formerly scored between 50-60% will now score 90% and greater; thus,

treatment with Technology Treatment Plan is expected to improve the patient's hearing clarity to 90% and greater on a daily basis (especially in a quiet conversational setting). The patient is fully aware that they performed significantly better with enhanced clarity.

I mentioned earlier that the consequences of waiting too long to treat hearing loss can be dire. In some cases when the second round of word testing is completed, the patient's "Hearing Potential Score" will be compromised. The score may sometimes only be as high as 50-60%. In these cases, the outcomes and expectations for treatment are very dim (especially when compared with the patient who scored over 90%).

### **The Words In Background Noise!**

The #1 complaint of every patient with hearing loss, and most often the first symptom of hearing loss, is difficulty understanding speech and conversation in background noise. Thus, it is critical that the clinician understands each patient's ability to decipher speech in background noise (again, without visual or contextual cues). This test, called the Quick Speech in Noise Test (QuickSIN™), is a means to quantify a patient's difficulty understanding and following speech in background noise.

Briefly, the sentence intended to be heard and repeated by the listener is presented at a clear and audible volume to the patient. With each new sentence introduced, the level of background noise (often referred to as "cocktail party noise") is increased in increments of five decibels. The final iteration of the test is when the speech and background "babble" are presented at the same volume—significantly taxing the auditory system and its noise-reduction filters.

Individuals with normal hearing are typically capable of hearing every word at each level, and some of the words at the final, most competitive level. In contrast, individuals with even a mild hearing loss can struggle significantly on this test when the noise is ten decibels less than the intended speech. The test is scored on a Hearing Handicap Scale and

can range from normal, to mild, to moderate, to severe hearing handicap. A majority of patients with a mild age-related hearing loss will often score in the mild to moderate hearing handicap range, confirming his or her reported difficulty following conversation in complex listening situations.

## QUESTION #6

### *What if I still have questions after the initial consultation?*

The initial consultation can be overwhelming for some people and for their family members—and can sometimes stretch to ninety minutes or more. In these situations, it can be difficult to ask every question, to process everything that is being said, and to understand the enormity of the diagnosis of hearing loss. Every patient of mine has my e-mail and office phone number on my business card. I believe in an open discussion and dialogue and that many patients, and perhaps their family members, will have questions that come up even after the appointment is over.

I always invite and encourage patients to bring family and loved ones to their appointments. Bring a spouse, bring an adult son or daughter, bring an adult grandchild—it's okay because your hearing loss impacts every one of these people.

It is important that the patient and his or her loved ones understand exactly what is happening with the patient, exactly what the degree of hearing loss is, how the disorder can impact his or her life, how it can impact his or her cognitive function, and how it can impact his or her risk of developing dementia, which often leads to loss of independence and even institutionalization. At the initial consultation, there will also be a medical recommendation presented for how to treat the hearing loss. There is no one-size-fits-all treatment plan. Our Technology Treatment Plan offers a wide array of options that are often dictated by the test results and patients' needs.

## QUESTION #7

### ***When is the best time to treat my hearing loss?***

**A.S.A.P.** Hearing loss is associated with increased rates of diabetes, heart disease, kidney disease, thyroid disease, problems with balance, falling, and the development of dementia.

What happens to a muscle if you do not use it? It weakens, it atrophies. This happens to more than just muscle. The more your brain is deprived of proper auditory stimulation, often referred to as auditory deprivation, the greater the loss that could have been prevented. The hearing nerve pathways of your brain are not getting the proper auditory stimulation and auditory cues that it needs to run at 100%. The brain is a very simple “Use it or Lose It” mechanism, and auditory input can help to provide the proper, constant stimulation our brains are accustomed to and designed to receive. Hearing is not a sense to take for granted. Yet the statistics are alarming—it is estimated that only 20% of individuals with hearing loss actually seek medical treatment. Without the proper treatment of hearing loss, the brain is being asked to work on overload, constantly. I often use the analogy “living with untreated hearing loss is like asking your brain to drive sixty miles per hour in second gear.”

In neuroscience, we call this “Cognitive Overload”—asking the brain to process auditory, visual, and other cues just to put together a simple sentence.

#### **Consider this sentence:**

*Hi Martha! How is your puppy doing? Is he eating and growing okay? I hope we can get our dogs together soon to play.*

If we filter this sentence through a typical mild age-related hearing loss with compromised clarity (e.g., difficulty hearing consonants), the sentence could be perceived as this:

*i, Mara! ow i our uy oing? I e eaing and groing o? I oe e an ge our do ogeer oon o ay.*

I think you will agree that this is alarming. Remember earlier when we discussed patients with mild hearing loss missing 50-60% of words at near-normal conversational volume? This is what it could sound like to the patient with auditory-only cues. Of course, the brain will use visual cues, lip-reading, etc. to fill in the missing pieces—but the brain was not designed to take on that much stress and effort just to understand a simple sentence.

This cognitive overload is hypothesized to be one of the leading reasons that individuals with hearing loss can be FIVE TIMES more likely to develop dementia.

I was invited to a hearing brain symposium where one of the presenters shared a recent experience that illustrates how the brain was designed for communication and how it prefers hearing. They were using functional MRIs to study how the brain changes and reorganizes with hearing loss over time. They found that the backup system was vision and that visual activation started happening in places associated with hearing and speech understanding. One of the researchers developed a sudden loss in one ear while working on the project. He was promptly scanned. They found that in this individual the brain had reorganized within six weeks to rely more on visual information.

Visual information is less than ideal, and when hearing is treated the auditory pathways become reestablished, and the brain becomes less reliant on the visual information for communication.



Humans are social creatures, and our brains are designed for communication. The brain's primary method for social communication is hearing. Hearing is our number one primitive survival sense. It is why when I tell a good story about Big Foot to my scouts, every rustling leaf or tree branch wakes them up because it might be Big Foot.

## QUESTION #8

### ***What if I am nervous about treating my hearing loss?***

Undergoing treatment for any medical disorder can be overwhelming to patients and their family members. Fortunately, today's Technology Treatment Plan has alleviated most of the worries and concerns about treating hearing loss. The technology is specifically designed to be discreetly worn all day and fit comfortably in the patient's ear. With enhanced clarity features, background noise cancellation filters, and wireless connectivity, today's hearing loss treatment options are simple and sometimes even fun—you can connect your Technology Treatment to all sorts of home electronics including light bulbs, coffee pots, doorbells, etc.—but this is beyond the scope of this book!

## QUESTION #9

### ***Why can't we wait until next year to treat my hearing loss?***

Hearing loss would be a much higher priority if we understood its importance not only for communication and quality of life, but for brain health. Simply stated: Treating hearing loss early helps preserve your ability to not only perceive the sound, but your ability to use the sound. We only have a limited number of hearing receptor cells (hair cells). Mammals (humans, dogs, mice, etc.) have age-related hearing loss, hair cells don't work as well or die. Which means the complex analysis of the sound you heard gets scrambled with missing information, poor timing of nerves, distorted nerve signals, etc. This problem is becoming more prominent in our society as we live longer, more active and engaged lives.

With this progressive degenerative disorder, there is a gradual, continual loss of hair cells within the cochlea. These cells each have upwards of thirty nerve fibers responsible for relaying information to the brain to process sounds and conversation. As each cell dies with age and excessive noise exposure, so too, will the attached neurons.

A recent study from Johns Hopkins found significant cerebral atrophy (a/k/a brain shrinkage) in the brains of individuals with hearing loss — likely the result of the progressive degenerative nature of hearing loss. The cerebral atrophy found in these individuals is reminiscent of the global cerebral atrophy observed in individuals with dementia.

Treating hearing loss early has many advantages—predicated on “Use It or (Continue to) Lose It.” Treating hearing loss cannot prevent further damage caused by our genetics or prior exposure to loud noise but it can help maintain clarity and fine resolution of speech understanding as the disorder progresses. Our goal is to keep the brain pathways as

healthy as possible by stimulating the linked neurons. These are the neural connections that would atrophy and die if they continued to not be stimulated like they were designed to be.

Numerous studies have been done over the years to understand the impact of only using one hearing aid when the patient had equal amounts of hearing loss in both ears. The results are definitive. Two ears are better than one. The untreated ear's ability to perform word discrimination tasks is significantly reduced compared to the treated ear. Looking back on these results, they almost seem like common sense—the brain was designed to receive input from two ears and can respond adversely if only stimulated by one. I often joke with my patients who ask, “do I have to treat both ears?” by asking them, “how many people do you know walking around with a monocle, like the Monopoly-man?!” In all seriousness, the importance of treating hearing loss early cannot be understated. Maintaining the strength and vitality of neural connections of the ear to the brain is key to the successful treatment of hearing loss.

# CHANGING LIVES

## Another Why Moment

Dr. Kalob Parsons, Au.D.

An older man brought his father in. He reported that he lived in a care center and that he had helped him get new hearing aids three years ago, but even with that he had not been able to have a conversation without yelling. Family and staff were concerned that he had lost his mental abilities. The son reported that he visited his dad every day, but that he would be willing to pay anything to be able to talk to his father without yelling, that he wasn't convinced it was dementia.



We did the hearing test and confirmed that he had a substantial hearing loss. We checked his premium hearing aids and found that they were in working order. I then performed Real Ear, (a test that allows us to know what the hearing aid is really doing and if it is at prescription). This is considered best practice, but not performed by most clinics in the US

or in our area. The testing showed that this man's hearing aids were programmed incorrectly, and his hearing was actually worse with the hearing aids in than with them out. Fortunately, the aids were unlocked, and I was able to adjust the hearing aids to prescription with Real Ear.

We then experimented in the office, and the son stood behind his father, and they carried on their first conversation, without yelling, in years. There wasn't a dry eye. Somebody just needed to not cut corners and do the job right. That gentleman passed shortly after that appointment. I am so grateful that his son didn't give up.

# **PART 3**

**FOCUSING ON A PLAN THAT  
WORKS FOR YOU**





## **Is there an ideal patient?**

Yes, the ideal patient is a person who understands both the medical and personal consequences of untreated hearing loss. A person who understands that their hearing loss is not just about him/her but understands that hearing loss impacts their entire family, their group of friends, and their community. An ideal patient is somebody who is daily invested in their life, somebody who is invested in active aging, somebody who is invested in living independently, somebody who wants to stay engaged and who wants to be a part of the conversation, somebody who wants to be a part of their family and who wants to remain engaged in their community.

The ideal patient must accept the cost-benefit ratio when treating hearing loss; and I hope this book has helped patients understand that it's nearly impossible to put a dollar value on improved health. I believe the ideal patient truly wants to stay involved, wants to grow, wants to remain independent, and wants to make the most of every day and every relationship that they have. That is an ideal patient. If you are, or know someone that fits this description, please help them begin treatment of their hearing loss as soon as possible. You are always welcome at my clinic or at one of the Excellence in Audiology member-clinics in your area.

I suppose on the other side of the coin is the “not ideal patient”—the person who has his wife, his kids, and his grandkids basically pushing him into the office. That's not an ideal patient, although we have helped motivate many of them to realize what they need to do for themselves and their families. This type of patient must realize the severity of their situation and they must want to make a change. As you know, “you can lead a horse to water, but you can't make it drink.”

## QUESTION #10

### ***What treatment options are available to me when I'm ready to start treating my hearing loss?***

I get this question often as I am out and about in the community meeting new patients, and even from family and friends. My answer is always the same: Technology Treatment Plan. Advances in technology specifically designed to treat the cognitive aspects of hearing loss, not just make things louder, have significantly improved patient care and patient satisfaction.

But my next response is always, *“You must see a provider you trust, who has the expertise, who uses best practices and who has your best interest at heart to determine which form of Technology Treatment Plan suits you and your hearing loss best.”*

While the most important factor in determining treatment is always based on the patient's hearing profile and healthcare history, specific options can be based on several factors including: addressing specific patient symptoms (difficulty in certain sound environments, tinnitus, etc.), dexterity (can the patient manipulate an invisible hearing device?), and personal preferences (color, size, etc.). Your hearing healthcare provider can help you understand which form of Technology Treatment Plan, what shape and size, and which specific features can help you hear your best and keep you engaged in conversation.

## QUESTION #11

### ***What treatment options are available for the ringing in my ears (a/k/a tinnitus)?***

As a clinical audiologist, one of the most common questions, and complaints, I get from my patients is about the ‘ringing’ in their ears! Tinnitus (pronounced either TIH`nih` tus or tuh`NYE` tus) is defined as a sensation of sound in your ears, sometimes in your head. Each person with tinnitus has a different sound experience; for most it is described as a “ringing” sound, but many patients also report a shooshing, buzzing, or whooshing sound—similar to the sounds inside a conch shell.

*“I have experienced tinnitus. Because of my history of chronic middle ear problems, I used to suffer from tinnitus frequently, now I only experience it occasionally. However, this experience has certainly made me empathetic to anyone who suffers from tinnitus. Imagine a loud ringing sound that you just cannot get away from, day or night, regardless of how loud sound is around you. Tinnitus is responsible for many sleep-deprived nights. Because of this experience, I have researched, learned, and personally experienced many of the options for tinnitus treatment that are available today. Oftentimes, technology in both ears helps the brain be less aware of the ringing. I am always on the lookout for treatments that can be of help to me and my patients.” – Dr. Darrow*

*“My tinnitus ranged from the high-pitched piercing squeal to the soft ring. I will often use personal examples to help patients understand how tinnitus may be treated. Patients are more successful when they are taught not just what to do but given examples of how it is done. Fortunately, my tinnitus is now seldom noticed and when present, very seldom bothersome. These experiences are part of why I have obtained advanced training from multiple organizations, became certified to treat tinnitus and obtained specialized equipment to treat tinnitus.*

*It is currently estimated that nearly 50,000,000 American adults live with tinnitus. Tinnitus is experienced by approximately 80% of people living with hearing loss.*” – Dr. Kalob

Too many people dismiss the ringing, when in fact this sound essentially represents an internal alarm alerting you that something is not as it should be. Whether the tinnitus is constant, only noticeable in a quiet room or at night, pulsating or seems to have certain triggers (i.e., exercise or caffeine), it is important that the root cause of the problem be determined, and a proper treatment plan be put in place with your hearing healthcare specialist. In some people, tinnitus can interfere with daily life and result in depression, anxiety, and affect concentration.

## **What is the cause of tinnitus?**

The most common cause of tinnitus is damage to the cochlea (i.e., the inner ear). The cochlea is to hearing what your eyes are to vision. Within the cochlea are tiny hair-like cells called hair cells. When these cells are damaged, the nerves that connect the hair cells to the brain (and give us the ability to hear), become permanently damaged; and often the ringing will ensue.

## **How do the sensory cells in my ear get damaged?**

The sensory cells in the ear are most vulnerable to aging. Think about it—as we get older, we tend not to see as well or see as sharply as we used to, especially in low-light environments. Unfortunately, the same process happens in our ears as we age; we tend not to hear as clearly, especially in noisy situations.

Another common cause of tinnitus is excessive noise exposure, either a single intense noise (like a shotgun blast or an airbag) or long-term exposure either from work or play (e.g., musicians, concert attendees, carpenters, machinists, landscapers, etc.).

## **But why do my ears ring?**

Ninety percent (90%) of tinnitus is an ear to brain disconnect due to lack of stimulation along the auditory pathway. The more detailed answer: tinnitus is most often the result of a “Central Gain” in neural activity that occurs when there is a loss of proper neural stimulation from the ear to the brain. More simply, when the brain is not stimulated in the case of individuals with hearing loss (even a mild hearing loss), the brain will increase activity to make up for the missing input.

This “Central Gain” is similar to “Phantom Limb” phenomenon studied in neuroscience. In cases where damage occurs to the peripheral nervous system—such as when a soldier loses a limb in battle—the central nervous system (also known as the brain) will undergo adaptive changes that can often result in the perception of pain. Our ear’s perception of pain is the ringing. Based on my experience of the sudden damage to my ear, my theory is that the damaged hair cells are sending incorrect chemical and electrical signals to my brain that is interpreted as sound in the absence of a true auditory stimulus.

## **Treatment For Your Tinnitus**

Unfortunately, too many patients have said to me, “I have tinnitus, and I’ve been told there is nothing that I can do about it.” I emphatically say to each of these patients—that is not true, because my tinnitus is not nearly as loud or obtrusive as it used to be. Is there a cure for tinnitus? No. Are there recognized FDA-approved treatment options available to reduce, and in some cases, eliminate, the ringing? **YES!**

The single most effective treatment option available for patients suffering with tinnitus is a Technology Treatment Plan. The FDA (Food and Drug Administration) has approved treatment for individuals with tinnitus by providing the brain with restored proper stimulation. And while most people with tinnitus also suffer with hearing loss, that is not

always the case. Fortunately, newly available Technology Treatment has been designed for people with hearing loss and for individuals with (so called) “normal” hearing. Many studies show that patients who use the tinnitus support technology note a significant reduction in their daily tinnitus experience—with some even reporting that “the ringing is gone all day.”

## QUESTION #12

### ***What if I have “total hearing loss” in one of my ears? (And what is a CROS System?)***

As a rule of thumb, the hearing ability in the two ears should be nearly equal to each other. After all, your ears are the same age. If you have a history of noise exposure, it was likely the same in both ears, and if you were prescribed a medicine with a side-effect that could impact hearing, it will impact both ears similarly.

But, in some patients, hearing in one ear will diverge from the other. This can result from a host of issues, including viral infection of the ear, physical trauma to the ear, and of unknown origin (medically diagnosed as “idiopathic hearing loss”), which is a funny sounding medical diagnosis because it sounds like the clinicians are idiots and don’t know what happened! HA! According to the Merriam Webster dictionary, ‘idiopathic’ means, *“arising spontaneously or from an obscure or unknown cause.”*

The separation of hearing levels between the two ears can sometimes be dramatic or even complete. Unfortunately, some patients have a “dead ear” (medically defined as anacusis) with normal hearing in the other ear. In other patients, there is an ‘asymmetric hearing loss’ which implies hearing loss in one ear and even worse hearing loss in the other ear. The brain was designed to hear with two ears, and it will function best with equal hearing in both ears. Binaural (two ear) hearing has significant benefits that include increased sound localization ability (e.g., figuring out where sound is coming from in the room) and enhanced perception of speech in noisy situations. These characteristics of binaural hearing are often referred to as the ‘Binaural Advantage’. If you know somebody with ‘lopsided’ hearing loss, you will notice that they always strategize to improve the listening environment by having the speaker(s) on their better hearing side.

While the course of treatment for individuals with significantly poorer hearing in one ear is different than the patient with symmetrical hearing loss, a Technology Treatment Plan can be customized to improve hearing and understanding in all listening situations.

Briefly, the most common Technology Treatment used in these cases is referred to as a CROS System. CROS (Contralateral Routing of Signal) will take sound from the ‘dead’/worse side and route it over to the better side (even if there is some hearing loss in the ‘better’ side). Using this technology allows the patient to access sound on the (otherwise) muted side of the body. While this patient may never perform as well as an individual treating equal levels of hearing loss in both ears, restoring perception of sound from the muted side of the body can offer significant relief in almost all listening situations.



## QUESTION #13

### *Do they still make traditional hearing aids?*

Yes, traditional hearing aids are still made. Mostly this traditional technology has been relabeled and is now masquerading as “new” over the counter (OTC) technology or personal sound amplification devices (PSAPs). Unfortunately, because the words ‘hearing aid’ are very general and very common, it can be quite confusing for the patient. As I explain to my patients nearly every day:

*“Your father (or grandfather) wore traditional hearing aids (and he probably hated them). This older technology was intended to make sounds louder regardless of location in the room, regardless of the volume of the incoming sounds, and regardless of what the patient did or didn’t actually want to hear.”*

As an audiologist seeing patients early on in my career, I was very disappointed by the limitations of the traditional hearing aid technology (and often embarrassed about having to relay the cost of the device—knowing the benefit would be limited, thereby limiting the patient’s ability to remain socially engaged). It was all that we had at the time.

## QUESTION #14

### ***So, what's the deal with new hearing aids and a Technology Treatment Plan?***

(Most) new “hearing aids” are a Technology Treatment Plan.

In the last 10 years or so, there have been giant leaps and bounds in hearing aids towards improving listening experience for the patient (and thus increasing patient satisfaction). Around this time, the average patient satisfaction rating for traditional hearing aid experience was hovering around 70% to 75% (as measured by the MarkeTrak survey).

If you fast forward another ten years to present time, the most recent MarkeTrak survey examining patient satisfaction with hearing loss treatment has shown ***an improvement to 91%! I believe this number speaks for itself.***

Treatment of hearing loss with traditional hearing aids is (thankfully) beginning to be phased out and replaced with an advanced technology Treatment Plan that is designed to enhance hearing in all listening situations, enhance clarity of speech details, automatically provide an increased boost of volume for soft speakers, stimulate the brain, and increase cognitive function.

Not only have the treatment options improved, but the treatment process has improved. We know better how to stimulate your hearing pathway and know how to stimulate it properly over time. Current research also suggests that not treating your hearing loss puts you at risk, but also under-treating your hearing loss. Yes, not only do your hearing aids need to be programmed to prescription, but they also need to stay at prescription as well. This is a key focus of our treatment plan.

## QUESTION #15

### *What in the heck is an invisible hearing aid?*

Modern Technology Treatment Plan hearing aids are hard to see on most patients. Like Wonder Woman's invisible jet plane—you can't see it, but it is really cool! I get questions about this all the time from patients: “What is an invisible hearing aid?” and “Will my friends be able to see it?”

When treating hearing loss with a Technology Treatment Plan, I have two principles that I always follow:

1. Use the right Technology Treatment Plan to treat the patient's hearing loss and improve cognitive health.
2. Respect the patient's desire for a Technology Treatment Plan that is physically and aesthetically comfortable for them.

#### **BUT... Principle #2 can never override Principle #1.**

Generally, in the tech world, the size of technology decreases over time. Advanced Technology Treatment uses smaller, more powerful digital technology and processing to automatically adapt to the user's surroundings. I have always believed that treating hearing loss should require minimal effort from the patient. The hearing-impaired person needs to start using Technology Treatment when they wake up in the morning and then simply remove it before falling asleep—and do nothing in between! Advanced Technology Treatment has ushered in the age of effortless hearing loss treatment.

Advances in design and technology allow for the user to be hands free—no more buttons for environment (i.e., push the button twice when in a noisy restaurant, push three times when in the gym, push the button

four times when on the phone, etc.) and no more spin-wheels to adjust the volume up and down. Innovations in Technology Treatment allow for automatic adaptation to dynamic environmental listening situations (e.g., listening to speech as you go from a quiet room to a noisy room), and it can automatically adapt to incoming volume to maintain the normal fluctuations in the volume of voices and background noise. The most advanced feature of Technology Treatment is noise cancellation that delivers increased access to clear speech in noisy listening situations (more on this in the bonus question!).

While Technology Treatment is the circuitry inside the device, the device can come in different shapes and sizes to best fit your hearing loss and your ear.

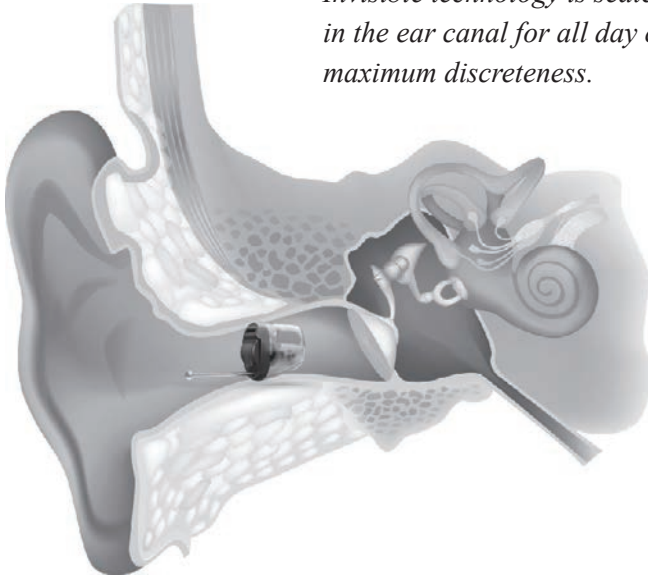
## **Technology Treatment Plan Options for Treating Hearing Loss**

### **Invisible Treatment Options**

Once placed in your ear, this technology is hassle-free—you may even forget you're wearing the device! And that's the point. Hearing loss shouldn't hold you back, and neither should your hearing solution. Features in today's invisible technology options include:

- An invisible and custom fit. Some devices can be deeply fit inside your ear canal with personal customization for all day comfort.
- Low battery reminders. Devices can remind you in your ear, your phone (if compatible), by text, or email that your batteries (or your loved one's batteries) are low.
- Easy adaptation to new sounds with automatic volume control and adaptation to the listening environment.
- Wireless streaming to your compatible smartphone to keep you connected to your TV, music, and other media.

*Invisible technology is seated comfortably in the ear canal for all day comfort and maximum discreteness.*



### **Mini “Receiver in the Ear” Options**

Groundbreaking Technology Treatment is fast and precise enough to analyze and follow the dynamics of the entire auditory environment and differentiate between speech and background noise. Without getting too lost in technical details, Technology Treatment is capable of sampling sounds in the environment 500 times per second to decide on how to optimally perform and restore clarity; whereas traditional hearing aids were barely capable of analyzing the sound environment and capped out at a sampling rate of less than 5 times per second.

Advances in miniaturization of Technology Treatment have led to the breakthrough of new technology found to support brain function, including working memory, selective attention, and processing speed (see Bibliography section for report from Dr. Desjardin, University of Texas, El Paso). These new devices have three features designed specifically to maintain the brain’s innate ability to hear in all different listening situations:

- ✓ **Clearer Hearing in Background Noise.** By separating important speech from background noise by as much as 10 decibels, this new technology provides 30% better speech understanding and clarity in noise.
- ✓ **Enhanced Clarity = Enhanced Memory Recall.** Individuals with hearing loss can have difficulty with working memory, thought to be the result of distorted auditory input to the brain. Advanced Technology Treatment Plan can provide 20% more capacity to recall and remember words by increasing the clarity of the signal being processed by the brain.
- ✓ **Reduced Mental Effort.** Many patients describe hearing loss as being “exhausting.” Normal hearing is relatively effortless in most listening situations. But to an individual with hearing loss, even a simple conversation at work with a colleague or while out fishing with the grandchildren can require major effort and use of all available mental resources, including lip-reading. Neurotechnology can offer the hearing-impaired user relief by reducing the “cognitive load” (mental effort) by 20%\*, making the conversation significantly easier to follow in all situations.

*Other features include:*

- ✓ Hands-free wireless surround sound hearing on compatible smart phone.
- ✓ Rechargeable batteries. No more batteries going dead at inconvenient moments. No more batteries dropped on the floor. No more unexpectedly running out of batteries at a critical moment. The devices are recharged nightly by putting them into a special charging case.
- ✓ Wireless compatibility with any TV to enhance the clarity of the signal.

- ✓ Control of your internet connected devices at home, including the thermostat, lights, and even certain cooking appliances.

Let's join in with all current advanced Technology Treatment Plan users and celebrate!

## **Gone are the days of clunky "beige banana" hearing aids!**



# CHANGING LIVES

## My Why Moment

Danielle, Patient Care Coordinator

In the first few months of working at Better Hearing, a college student stopped into the office. They had been a hearing aid user for many years and had a pair of older hearing aids. One of their hearing aids had stopped working several months before they stopped into our office, but fear of the cost of repair had kept them from getting their hearing aids looked at.

We were able to get their hearing aids back up and running in no time after doing a quick check. All that needed to be replaced was a very inexpensive part that took about five minutes to find and fix. That sweet patient left our office in happy tears because of the impact a few minutes of our time had had on their life.

For me this patient's story reminds me of how something so small and insignificant to us can be lifechanging for those around us. It brings me joy to be a small part of helping all of our patients to hear and communicate with their loved ones.





# **PART 4**

**FINANCING YOUR HEARING  
LOSS TREATMENT WITHOUT  
BREAKING THE BANK**



## QUESTION #16

### *How much will my “new ears” cost me?*

#### **Answer: It depends.**

Throughout this book I have referred to Technology Treatment Plan options as the “gold standard” of treating hearing loss. Specific recommendations will rely on several factors (degree of hearing loss, symptoms, amount of time living with untreated hearing loss, etc.). However, with that said, I have over twenty years of horror stories of patients trying to “save a buck.” I know patients who have thrown away \$30, \$300, even as much as \$3,000 on a “sound machine in their ear” that amplifies volume. Some have tried traditional hearing aids that only make sounds louder; some have tried online or over the counter (OTC) devices; some have tried Personal Sound Amplifiers (PSAPs); some have even tried “mail-order” hearing aids. Regardless, each time the patient comes in professing their mea culpa and seeking forgiveness. I take no issue with patients trying to save money and make good economic decisions, but even with healthcare...you get what you pay for. Treating the progressive degenerative nature of age-related hearing loss is no different than treating other major medical disorders as you age. As an example, imagine yourself, or a loved one, in a situation where hip replacement surgery is required. Could you imagine your surgeon asking the following question?

*“Would you like me to replace your hip and restore 30%, 70%, or maximum percent mobility?”*

Here is another example, imagine saying to your heart surgeon, after they let you know that you are required to undergo triple by-pass and heart valve replacement:

*“Doc, if you don’t mind, I’m going to shop on Amazon for a replacement*

*valve to try and save a few bucks...even if it doesn't pump the adequate amount of blood to keep my body oxygenated and healthy."*

While both of these scenarios may seem far-fetched and ridiculous, unfortunately the retail aspect of hearing healthcare has "poisoned the well" for too many people living with hearing loss and has made treating hearing loss a very confusing, onerous process for the patient.

We trust all of our healthcare providers to use their knowledge and experience to provide us with the best, most medically sound treatment recommendation, regardless of price. You should expect the same from your doctor of audiology. If your clinician is reputable (is referred to by local physicians, has many five-star reviews on Google, has readily available current patient liaisons to speak with, etc.), is an Excellence in Audiology member-clinic, and has longevity in the community, then you can rest assured that their pricing structure is standard and that the only variable is the cost of technology (pre-set by the manufacturer).

A Technology Treatment Plan is the number one most effective, FDA (Food and Drug Administration) approved treatment for hearing loss and has the highest recorded level of patient satisfaction.

## QUESTION #17

### *What is the cost of not treating my hearing loss?*

#### **Answer: Possibly a lot more than you think!**

Throughout this book we have discussed the positive impact of treating hearing loss and the dire consequences of not treating hearing loss. It is difficult to assign a true monetary value to both of these scenarios, but I will give it my best shot!

Here are two examples.

1. Hearing loss can increase the risk of developing dementia by 200-500%. Treating hearing loss is reported as the single most effective modifiable factor to prevent dementia. Given these two medical research findings, it is not unreasonable to calculate the cost of treating a patient with dementia that could have possibly been avoided by treating their hearing loss at an earlier age. Statistics show that the average family will spend approximately \$57,000.00 per year to cover healthcare costs and manage the care of a loved one with dementia.
2. Hearing loss increases the risk of falls in seniors. Treating hearing loss can significantly reduce the risk of falling. Again, given these two medical research findings, it is not unreasonable to calculate the cost of treating a patient who falls and compare it to the cost of treating hearing loss. Falling over the age of sixty-five is the #1 cause of injury-related deaths. And once a person falls, they are two times more likely to fall again. The Center for Disease Control and Prevention (CDC) estimates that the average medical cost associated with a fall that results in hospitalization is over \$30,000.00 (and the cost of treatment increases with age).

In addition to dementia and falls, co-morbidity of hearing loss (i.e., other diseases that are correlated with hearing loss) extends to diabetes, coronary disease, thyroid disease, and others.

## QUESTION #18

### *How do I pay for my “new ears”?*

Like any major medical procedure, audiology procedures can cost several thousand dollars, not all of which are covered by your insurance (depending on your plan!)

How much you will have to pay out of pocket depends on several factors, including the Technology Treatment Plan recommended, the procedures involved, and, of course, the specifics of your insurance policy. One way many of my patients pay for their treatment is by utilizing creative benefits. For example, using their Medical Savings Account (MSA), Flexible Spending Account (FSA), business expense, financing at 0%, using tax returns, and even using the cost towards their medical expenses benefit on their tax returns (warning—I am not an accountant and do not even play one on TV— so always ask your accountant how to best proceed with all tax matters).

Monthly membership plan works well with Flex Spending. Patients are offered the option of an initial down payment with recurring (fixed) payments. This structure has several benefits that include:

- Price lock guarantee when you upgrade your treatment technology in 4 years.
- Complete warranty coverage that includes damage and loss coverage for the life of the Technology Treatment Plan program.
- Free service, free annual hearing screenings, and free supplies (batteries, cleaning supplies).
- And more...

This is a fantastic resource for patients to be able to access premium level treatment plans with a fixed monthly cost...all with no worries about any future costs!

## QUESTION #19

### *Does my insurance cover the cost of my Technology Treatment Plan?*

This is a loaded question—and one that I can only answer in general terms because health insurance coverage is a complex ever-changing set of rules, regulations, and specifics that make it impossible to make a blanket statement regarding your coverage.

After thirty years of patient care and working with nearly every flavor of insurance coverage, these are my two take-away messages:

1. Nearly every insurance plan, including Medicare, will cover the cost of the comprehensive hearing evaluation.
2. Some patients have some coverage for the cost of treatment (e.g., Technology Treatment Plan).

I acknowledge that “nearly every” and “many” are vague terms, but this is the world of insurance we currently live in. I have worked with patients that have \$100.00 of coverage and some with \$10,000.00 in coverage (not that it should ever cost you that much!). Many insurance plans only focus on hearing aids, not on treatment. It is not uncommon for plans to only cover the minimum, even if the benefit is listed as significantly larger. Some require you to purchase hearing aids through a 3rd party vendor that ‘provides a discount’ that is more expensive than if you had purchased the hearing aids through normal means. Sounds frustrating and confusing. It is, possibly on purpose. Work with a clinic that you can trust and will help you navigate through the maze of insurance benefits to find the solution that is truly in your best interest.

TIP: Do not be afraid to pick up the phone and ask your insurance company point blank: **“Do you cover the cost of treating hearing**



**loss?”** Also, don’t be afraid to call back and ask again (you would be shocked how many times our office has called insurance companies seeking this answer only to get a different answer each time we call!). At my office, our patient care coordinators will work with the patient and their insurance company to maximize the patient’s benefits and coverage.

# CHANGING LIVES

## My Why Moment

Heidi, Hearing Instrument Specialist

A man came into the office for a fitting. It was early in the morning, and he was so excited to be able to hear with new aids. His previous pair weren't working well, and he had been struggling. As I began the fitting, the patient fell asleep. I did my best to keep him alert through the fitting and give him the appropriate information. We scheduled a follow up and he left. About five minutes later the patient returned with tears streaming from his eyes. I asked him what was wrong, and he said, "you have changed my life". He went on to describe how in just a few short minutes his balance was significantly improved, how the world around him sounded more natural and clearer. He even commented that the reason he was falling asleep was because it was just so peaceful and relaxing to be able to hear so well. I gave him a hug and rejoiced with him at the positive change we were part of.



# **BONUS SECTION**

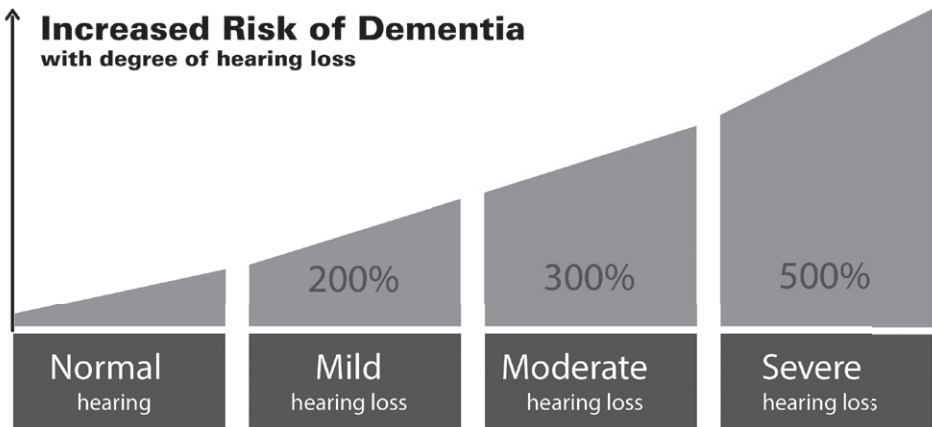
**TREATING HEARING LOSS  
& YOUR OVERALL HEALTH**



## QUESTION #20

### *What is the research behind the relationship of hearing loss and dementia?*

Age-related hearing loss is a progressive and degenerative disorder resulting from the loss of receptor cells (the hair cells) in the ear. Consequently, there is a significant reduction of the quantity and quality of neural connections from the ear to the brain. This slow-onset disorder can have a significant impact on several key brain areas, including the memory, hearing, speech, and language portions of cognitive function. Several key research studies have pointed to the potential links of hearing loss and dementia, including the groundbreaking work from Dr. Lin and his colleagues at Johns Hopkins Medical Center that indicates hearing loss can increase the risk of dementia by 200-500%.



*Summary data of relationship of hearing loss and increased risk of developing dementia.*

The initial report first published in 2011 by scientists at Johns Hopkins Medical Center and the National Institute on Aging found that individuals with hearing loss (when compared to participants with normal hearing)

are at a significantly higher risk of developing dementia as they age. The relationship between hearing loss and increased risk was rather simple: the more hearing loss they had, the higher the likelihood of developing the memory-robbing disease. *“A lot of people ignore hearing loss because it’s such a slow and insidious process as we age,”* Dr. Frank Lin (of Johns Hopkins Medical Center) says. *“Even if people feel as if they are not affected, we’re showing that it may well be a more serious problem.”*

### **Three risk factors associated with hearing loss and dementia include Social Isolation, Cerebral Atrophy and Cognitive Overload.**

#### **Social Isolation**

##### **The impact of reduced social and physical activity.**

Withdrawal from social situations is common in individuals with hearing loss. Many studies cite feelings of embarrassment, fear of making mistakes in conversations, and feeling like they are not part of the conversation as the common rationale for individuals with hearing impairment to separate themselves from family, friends, and community. This retreat from social activity has even been found in individuals with a mild degree of hearing loss. In addition, individuals with hearing loss are less likely to engage in physical activity. Increased social isolation and reduced physical activity are strong risk factors for dementia development.

***“Blindness Separates You from Things,  
Deafness Separates You from People.”***  
— Helen Keller

## Active Aging: How to Reduce Social Isolation

Active Aging is being proactive in maximizing your health and quality of life. This may include social, physical, spiritual, and civic involvement. Remaining autonomous and independent is helped by relationships with family and friends.

Both social isolation and depression are risk factors for the development of dementia, and both increase as we age. Being a lifelong learner and staying active is important to maintain a healthy, active brain, and can also reduce your risk of cognitive decline and dementia. Some studies have shown that social activities, larger social networks, and a history of social contact are associated with better cognitive function and reduced risk for cognitive decline.

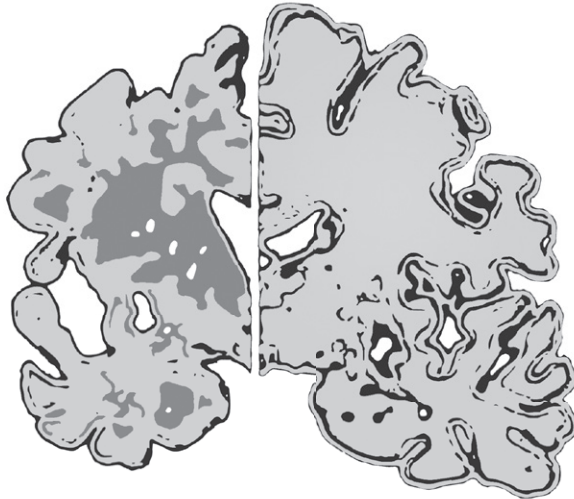
Tips for active aging include:

- Sharing a meal with family and friends 3–5 times per week.
- Committing to an aerobics/exercise regimen.
- Learning a new hobby each year.
- Playing an instrument (or learning a new instrument).
- If you love to read...keep reading (and try to mix up the topics!).
- If you don't read much—try to read a book every other month.
- Participating in classes at your local senior center.
- Volunteering at a local hospital, shelter, etc.
- Going back to school. Many local state universities offer reduced tuition to people over 65.

## **Cerebral Atrophy (a/k/a Brain Shrinkage)**

The association of a shrinking brain, resulting from the loss of neurons, with dementia has been long documented. Even people with MCI (Mild Cognitive Impairment) show signs of cerebral atrophy. In recent years, scientific studies using advanced brain imaging techniques (including fMRI -Functional Magnetic Resonance Imaging) have demonstrated that hearing impairment is associated with accelerated brain atrophy in both the overall brain, as well as even more advanced reductions in volume associated with the memory, hearing, speech, and language portions of the brain.

Individuals with hearing loss can experience significant cerebral atrophy. The most significant reduction in cerebral volume occurs in areas involved in memory, hearing, speech, and language.



**Brain With Hearing Loss**

**Brain With Normal Hearing**

*Schematic representing the potential cerebral atrophy in an individual with age-related hearing loss.*



## QUESTION #21

### *Can I reduce my increased risk of developing dementia by treating my hearing loss?*

#### **Treating Hearing Loss and the Impact on Cognitive Function**

In a recent study investigating the relationship between treating hearing loss and cognitive function, it was found that current hearing loss treatments can improve brain function in people with hearing loss. It is understood that hearing loss, if left untreated, can lead to emotional and social consequences, reduced job performance, and diminished quality of life. Recently, studies have even shown that untreated hearing loss can interfere with cognitive abilities because so much mental effort is diverted toward understanding speech (cognitive overload).

The research was aimed at measuring core cognitive functions in subjects in their 50's and 60's beginning hearing loss treatment for the first time. After only two weeks of treatment, cognitive testing began to reveal a significant increase in scores for recalling words in working memory and selective attention tests, and that the processing speed for which participants selected the correct response was significantly faster. In summary: after only a couple of weeks, participants exhibited significant improvement in their cognitive function.

#### **Treating Hearing Loss and the Impact on Risk of Developing Dementia**

Since 2011, multiple long-term studies have provided strong evidence that treating hearing loss may eliminate the increased risk of developing

dementia. **Dr. Lalwani at Columbia University noted that treating hearing loss...**

*...may offer a simple, yet important, way to prevent or slow the development of dementia by keeping adults with hearing loss engaged in conversation and communication.*

Perhaps the most definitive report comes from the Lancet Commission, which presented a new life-course model documenting potentially modifiable risk factors for dementia. The Commission's report suggests that treating hearing loss is the ***single most effective modifiable factor to prevent dementia***. Other modifiable factors include reducing depression, increasing physical activity, and reducing social isolation – each of which is positively impacted by treating hearing loss.

### **Cognitive Overload (Working Your Brain Too Hard in Order To Hear)**

Hearing loss is not normal, and neither is the excessive strain that it can put on your brain. If you or somebody you love is experiencing hearing loss, you can observe this strain by watching the amount of effort required to follow a conversation. Patients will often joke and say, “I need to put my glasses on so I can hear you better.” Requiring these extra visual and lip-reading cues may seem a natural way to fill in the missing speech details, but long term these coping mechanisms may have harmful effects on cognitive function.

With hearing loss, the brain is constantly on ‘overload’ trying to fill in the missing pieces and follow the conversation. I often describe to my patients the taxing effect of hearing loss on brain function by describing the mental effort required to hear “is like driving 60 miles per hour in only second gear.”

Increased cognitive load is considered a risk factor for developing dementia. Cognitive load, as measured by pupillometry (the size of the pupils indicates the amount of mental effort), can quantify how hard

your brain is working to follow a conversation. Recent studies have found that individuals who treat their hearing loss do not work as hard to listen (have a reduced cognitive load) and have as much as a 20% increase in memory recall when following a conversation, even in noisy environments.

As I discuss the relationship of hearing loss and dementia with my patients, each seems to have the same follow up question for me: “Doc, if I treat my hearing loss, can I prevent or reduce my risk of developing dementia?” Thankfully, the data appears to be trending towards a resounding “Yes!” Recent reports have found a significant positive impact of treating hearing loss on cognitive health.

## QUESTION #22

***Can I really expect to be more socially active and engaged once I start treating my hearing loss?***

**Yes.**

Throughout this book, I have been providing countless examples of how treating hearing loss can profoundly impact a patient's life and mental health. Frankly, connecting the dots of treating hearing loss to improvements in overall health and personal independence is simple. If you ask your primary care physician, "Doc, what do I need to do to be healthier?", the answer is guaranteed to include reducing stress, increasing physical activity, staying socially active and engaged, losing weight, and eating healthy. Treating your hearing loss can help you achieve most of these goals. And achieving these goals is the key to healthy active aging. There are countless medical studies that find that people who do not treat hearing loss suffer from increased rates of depression, decreased socialization, and decreased physical activity. As an example, the National Council on Aging reported that individuals who do not treat hearing loss suffer from depression, anxiety, and decreased social activity. In contrast, individuals who proactively treat their hearing loss find improvements in relationships with family members (spouse, children, grandchildren, etc.), increases in feelings of self-esteem, and improvements in overall quality of life.

### **Connecting the Dots of Treating Hearing Loss and Improving Your Life**

- Treating hearing loss can increase physical activity, reduce stress and anxiety, and ultimately mean living a healthier and more independent lifestyle.

- Treating hearing loss can increase clarity of speech and the ability to follow conversation in background noise, increase socialization, help reduce the risk of depression, and ultimately mean living a healthier and more independent lifestyle.
- Treating hearing loss can increase auditory and environmental awareness, decrease the risk of falls, and ultimately mean living a healthier and more independent lifestyle.
- Treating hearing loss can increase cognitive function, reduce the increased risk of developing dementia, and ultimately mean living a healthier and more independent lifestyle.

Hearing loss can be isolating for so many people for a multitude of reasons. But it doesn't have to be. If you've made it this far through the book, you have come to understand the importance of treating hearing loss and taking care of your brain—and how these two are connected.

I wish you luck and happiness as you embark on the journey of treating hearing loss, restoring clarity, increasing independence, and keeping a healthy and fit brain!

# EPILOGUE

## **You Had Questions and I hope I've Provided Answers**

So, there you have it! Twenty-one of my patients' most popular questions answered (for your convenience, I've included a handy FAQ directly after this epilogue that summarizes most, if not all, of the questions we've just covered. Consider it a handy "quick reference" of sorts). The fact is, no book can ever answer EVERY question for every patient. Each case is unique, just as each patient with hearing loss that I treat is different. What I've tried to do is provide you with the basics and hopefully the confidence you'll need to ask further questions of your own hearing health provider when the time comes.

This is your hearing, your brain, and your overall health we are talking about here; never be afraid to insist on being heard and having your questions answered by your clinician. Now that you're armed with the answers for today's most frequently asked audiology questions, you can finally make the right decision for you or a loved one when embarking on the journey of medical treatment for hearing loss.

To take the next step, schedule your hearing evaluation and consultation at a Better Hearing and Audiology location or another Excellence in Audiology member-clinic.

# FAQS

**A RESOURCE GUIDE  
OF FREQUENTLY ASKED  
QUESTIONS & TERMINOLOGY**

## **What might happen if I wait to treat my hearing loss?**

Even mild hearing loss can be a major problem for a number of reasons. Hearing loss can increase the risk of developing dementia and is correlated with several other major diseases including diabetes, coronary disease, kidney disease, and increased risk of falling. Early treatment also improves the prognosis and expected outcomes. Treating hearing loss early helps preserve your ability to not only perceive the sound, but your ability to use the sound.

## **Who are some famous people who've invested in treating their hearing loss with technology?**

The list is quite long! A (much) abbreviated list includes presidents Reagan, Clinton, and George H.W. Bush, and other celebrities and famous athletes including Huey Lewis, Lou Ferrigno, William Shatner, Pete Townshend, Whoopi Goldberg, Derrick Coleman, Congressman Jim Ryun, Phil Collins, and Brian Kerwin.

## **Will I be able to afford a Technology Treatment Plan?**

Yes. Not only are hearing loss treatment options more affordable than ever, but insurance, payment plans, flexible spending accounts, and a variety of other financing options make treatment even more affordable.

## **Will being fit with a Technology Treatment Plan be painful or obvious to others?**

No and no. Advances in miniaturization of technology have helped develop the most lightweight, discrete, and sometimes completely invisible technology ever used to treat hearing loss.



## **Will I have to miss work or other social activities once fit with a Technology Treatment Plan?**

The initial comprehensive evaluation and treatment procedures will take between one to one and a half hours. Follow-up visits after that will only take between fifteen to thirty minutes. Patients walk out of the office after the first appointment and go about their lives...only now they can hear **MUCH** better!

## **Is it really such a big deal if I don't treat my hearing loss?**

Yes. Too many people believe that their hearing loss is “normal for their age.” There is no such thing as “normal” or “age-corrected” hearing loss. Eighty-five to ninety percent (85-90%) of adult hearing loss is a progressive degenerative disorder that will continue to negatively impact your life and cognition the longer it goes untreated.

## **What are some of the warning signs that I may have hearing loss?**

Early symptoms of hearing loss include difficulty following conversation in background noise, experiencing tinnitus (ringing in the ears), having to turn up the TV louder than others need it, asking people to repeat often, finding yourself needing to read lips to hear better, difficulty understanding on the phone, and your family bugging you about getting help.

## **What kind of side-effects can result from NOT treating my hearing loss?**

Untreated hearing loss is implicated in increased risk of falls, development of dementia, diabetes, coronary disease, depression, as well as increased stress and reduced physical activity.

## **Why should I choose a specialist to treat my hearing loss?**

Hearing loss is a major medical condition and has been listed as the third most common medical disorder impacting seniors. Unfortunately, loopholes in many state and federal laws allow for traditional hearing aids to be sold online and in retail establishments, including some of the big-box discount stores. These traditional hearing aids are most often older models and are only designed to amplify sound.

A Technology Treatment Plan, designed to treat the cognitive aspects of hearing loss, is the “gold-standard” and considered “best practices” by audiologists and board-certified specialists in private practice audiology clinics.

## **How do I know if my hearing care provider is a doctor of audiology?**

This is typically pretty easy to figure out by searching the internet or even calling the office. I’ve never been bothered by a patient calling to confirm my credentials prior to their arrival—in fact, I believe this shows a proper amount of due diligence on the part of the patient and a true investment in their hearing healthcare. Most states will also provide a list or search tool online to find licensed and certified providers.

## **What is a Patient Care Coordinator?**

During your initial consultation(s), you will usually be assigned a patient contact person—we call this person a Patient Care Coordinator in our office—with whom to schedule appointments, confer with for rescheduling, and, of course, help you get answers to any and all questions you may have at any point in the process.

## **Why are follow-up visits important?**

These are wonderful opportunities to ask questions you may have missed the first time, get further details from your specialist, and bring a family member to learn about your diagnosis and treatment plan.

## **Why is early treatment so important?**

Since we recommend adults fifty and older to have a comprehensive hearing evaluation, we use the term “Ears and Rears”! This is meant to remind people to add hearing to their list of medical appointments once they turn fifty. At fifty, if the patient is found to have hearing loss, it is critical to start treatment early to avoid some of the devastating consequences of untreated hearing loss. Alternatively, if the patient has normal hearing, a baseline will be established and used for comparison at follow-up appointments.

## **What if I don't believe in early treatment of age-related hearing loss?**

Unfortunately, for many patients it takes nearly seven years for them to admit they have hearing loss (or to succumb to pressure from family members) and start treatment. By this time, the hearing loss will typically be at a moderate degree or beyond and, in some cases, treatment outcomes can be negatively impacted. To assure a positive prognosis and improved treatment outcomes, hearing loss must be caught early and treated early to maintain the best possible brain health. *“Catch it early and treat it early!”*

## **What is sensorineural hearing loss?**

Sensorineural hearing loss (SNHL) is a hearing impairment that results from damage to, or dysfunction of, the inner ear (cochlear) and/or the auditory nervous system. Age-related hearing loss is a form of sensorineural hearing loss.

## **What is a conductive hearing loss?**

Conductive hearing loss (CHL) is a hearing impairment that results from damage to, or dysfunction of, the outer ear (pinna and ear canal) and/or the middle ear (the eardrum or ossicles—hammer, anvil, and stirrup). In some cases of CHL, medical or surgical intervention can help restore hearing function.

## **What is a processing disorder?**

Hearing loss is often defined in terms of the amount of lost volume that results from either a SNHL or a CHL. However, many patients, even those with normal hearing levels, can have a processing disorder that will limit their ability to understand and follow speech in background noise. Auditory processing disorder is kind of like dyslexia for hearing. The noise cancellation feature in the Technology Treatment Plan provides significant benefit by reducing background noise and enhancing speech—even for those with normal hearing.

## **Should I bring a family member with me to my appointment(s)?**

I answer this with a decisive YES. Your hearing loss not only impacts you but also everybody around you. I have always encouraged every patient to bring a spouse or a loved one to every appointment so they can help me, and the patient, better understand the daily impact of hearing loss on everybody's life. It is also important to assess how your family member speaks. Are they a “soft talker” or do they really mumble? It also helps me to know more about how you communicate with each other. By bringing in a family member you are more likely to accept help, will have greater success in treatment and higher satisfaction.

## **What is a Technology Treatment Plan?**

In recent years, traditional hearing aids, which simply make sounds louder, have been phased out and replaced with a Technology Treatment Plan. The significant cognitive benefits to a Technology Treatment Plan include: **binaural processing** (two ears working together), **sound orientation** (ability to detect the source of incoming sounds with increased accuracy), **enhanced clarity of voices** (even soft speakers), **automatic adaptation to environment** (no more pushing buttons and adjusting volume), and **noise-cancellation** filtering of background noise to enhance hearing conversation in noisy environments (hearing better in crowded rooms, restaurants, etc.).

## **What is the primary benefit of a Technology Treatment Plan?**

This answer is outlined in greater detail throughout the book. In summary, recent reports find that a Technology Treatment Plan and the treatment of hearing loss can significantly improve quality of life, reduce the risk of developing dementia, and offer an increase in cognitive function. Yes, all of this can be achieved by treating your hearing loss.

## **How do I get started with a Technology Treatment Plan?**

It's simple: request an appointment with the local audiology clinic, Better Hearing and Audiology, at [www.BetterHearingIdaho.com](http://www.BetterHearingIdaho.com), or visit [www.ExcellenceinAudiology.org](http://www.ExcellenceinAudiology.org) to find another member-clinic in your area.

The way we treat hearing loss has improved. For the majority of patients, traditional hearing aids and traditional hearing aid fitting practices will not effectively treat hearing loss or the symptoms of hearing loss, including tinnitus. Traditional hearing aids are volume-enhancing

devices that may help certain people in very limited environments (e.g., conversing one-on-one in a room with no background noise). For patients needing to follow conversation in dynamic environments (sitting at a dinner table with family and friends, going out to a restaurant, sitting in a lecture hall or a place of worship, playing cards with others, etc.), a Technology Treatment Plan will restore clarity and enhance speech even in background noise. A Technology Treatment Plan is an individualized plan that includes technology along with a treatment plan that is monitored and adjusted with time.

### **What is the difference between a Technology Treatment Plan and a membership plan?**

Membership plan is the name that Better Hearing and Audiology has given their Technology Treatment Plan that also may include additional services such as tinnitus therapy, auditory rehabilitation (think physical therapy for hearing), hearing training, cognitive activities, screenings of cognitive function, and more.

### **What are some of my payment options besides insurance?**

Ways many patients pay for their Technology Treatment Plan is by utilizing Flexible Spending through their work insurance plan, financing at 0% or a fixed rate, or even taking advantage of our new membership plan.

### **What if I need an emergency appointment before or after office hours?**

(This answer is a bit longer than most because of the seriousness of some audiology emergencies) Audiology emergencies most often fall in to one of two categories:

## **Sudden Change in Hearing**

While rare, a sudden change in hearing can occur. This medical condition, known as sudden-onset sensorineural hearing loss, may occur in one, or both (even more rare) ears and is often associated with a virus (and sometimes occurs along with an upper respiratory infection). There is varying data on successful treatment protocols for this disorder; regardless, the key to potentially recovering hearing function requires seeking medical attention within 24-48 hours of initial symptoms. If you suspect you have a sudden hearing loss, contact your local audiologist or primary care physician for immediate assistance.

## **Emergency Related to the Technology Treatment Plan**

Broken or “non-functioning devices” may occur from time to time during your treatment. If there is any disturbance, such as lost domes, tight speaker wires, or irritation, call us or your hearing care provider’s office as soon as possible to have them evaluate the urgency of the problem and schedule you to be seen accordingly. At Better Hearing and Audiology, we have staff available and trained to handle hearing aid emergencies during office hours and extended hours, and we offer the use of loaner devices.

In the interim, here are helpful hints to remedy some of the problems that you may encounter until you can be seen in the office:

- Itching is normal in the early stages of wearing devices. It is important to be sure your dome or earmold is clean.
- A device causing feedback or “squealing” can generally be worn until you are seen by our team. Call the office as soon as you notice this feedback or squealing so that we can schedule you to make a prescription change.

- A dome, earmold, or removable device that is not fitting well is not to be worn until it can be properly adjusted at the office. Call the office as soon as possible to have your specialists make the adjustment for comfort and fit.

## **Can my Technology Treatment get wet?**

Unlike traditional hearing aids that had no moisture resistance, most of today's Technology Treatment comes with an IP57 rating for dust and moisture resistance. In lay terms, the "IP" stands for International Protection Rating and the "5" indicates the unit is dust protected (highest score is a 6 on this scale) and the "7" indicates the unit can be immersed in up to one meter of water (that is over three feet!). With that said—we continue to direct patients to not swim or bathe with their Technology Treatment, but if you do, bring your technology into our office. We have special equipment to help when life happens.

## **Should I sleep with my Technology Treatment?**

It is recommended to not sleep with your Technology Treatment for three reasons:

1. Sleeping with the device on can cause discomfort to the ear and side of the head. Give your ears a rest.
2. It is easier for a device to fall out when you turn over in bed and may get lost.
3. Your batteries will wear out more quickly. If using disposable batteries, you will have to change them every few days. If your devices are rechargeable, you will have to remove them and recharge them during waking hours (takes about 3-5 hours).

However, I do have patients that sleep with their technology for safety and personal reasons.



## **How do I regularly clean my Technology Treatment?**

Just like cleaning your home...clean it a little each day and it won't become such a mess! Our staff will help you understand daily and monthly routines for maintaining your technology treatment at home. Use a lint free cloth and brush (typically provided at your first treatment appointment) to wipe down the unit every day. This will help prevent oils from the skin, dandruff, earwax, and other environmental dust from clogging the microphones and speaker over time.



# **BIBLIOGRAPHY**

**THE SCIENCE BEHIND  
EVERYTHING YOU READ  
IN THIS BOOK**

This book is the result of our over 50 years in hearing healthcare. In this time, we have amassed information from Dr. Darrow's research, reading of scientific publications, in professional meetings (as the listener and the presenter), and from directly interacting with patients and their loved ones. Below is a list of references that helped us put together this book and present the information to you in a succinct manner. You can access these manuscripts on Google Scholar and/or PubMed.

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**We are in a health crisis.** Cognitive Impairment is the #2 most common disability in the United States and Hearing Loss is #3. We used to think that correcting hearing was just about improving communication. We were wrong! ***Treating hearing loss is the #1 known modifiable risk factor for decreasing your risk of cognitive decline.*** Our amazing brains are designed to hear. Sound, such as music stimulates every major area of our brains, and older brains that don't have that stimulus, shrink.

**If you want the best hearing treatment possible, if you want to preserve your independence and relationships, then this book is for you.**

- Did you know that hearing problems, even at the mildest stage, can lead to social isolation and increase the risk of dementia?
- Do you want to remain independent and live an active life as you age?
- Do you or a loved one have impaired hearing?
- Treating hearing loss early helps preserve your ability to not only perceive the sound, but your ability to use the sound.



### **DR. KALOB PARSONS AU.D.**

Dr. Parsons is on a life mission to help as many people as possible with hearing loss through best practices and education. He started his practice, Better Hearing and Audiology LLC over 9 years ago and has hundreds of google reviews with a 5.0 star rating. The practice has been voted the #1 best practice in Idaho for the last 8 years and recently was also voted the best audiology practice in the state of Idaho in 2024.



### **DR. KEITH DARROW PH.D.**

Dr. Darrow is the only private practice audiologist in America to hold a joint PH.D. from Harvard Medical School and M.I.T. As a research associate at Massachusetts Eye and Ear Infirmary he contributed to the development of next generation auditory prostheses. His scientific research has been cited over 1200 times. He is the author of the best-selling book Preventing Decline.