



• Your Guide to Better Hearing •



An Invitation to Hearing Better

About 20% of Americans (or 1 in 5) report some level of hearing loss. By age 65, hearing loss afflicts 1 in 3. By 75, 1 in 2. In fact, it's the third leading health concern for older Americans (after Arthritis and Heart Disease). An estimated 50 million Americans suffer from tinnitus.

All this news may be of little comfort to you if you suffer from hearing loss and/or tinnitus. But at least you're in good company. And, there is hope.



Hearing better should be your goal. Why? Here are a few factors:

- Consider all of the things you are missing out on such as family and professional conversations. Hearing the highlights may work for sports but they leave you unfulfilled in social situations.
- Don't you just hate having to ask people to repeat themselves? It's frustrating and embarrassing.
- If you're in the workforce, you should know that hearing loss has been strongly associated with lower productivity AND lower salaries.¹
- According to a recent [Johns Hopkins Study](#), older adults with hearing loss are more likely to develop Alzheimer's disease and dementia, compared to those with normal hearing. Further, the risk escalates as a person's hearing loss grows worse.
- Hearing loss is also associated with diabetes. In fact, hearing loss is about twice as common in adults with Type 2 diabetes compared to those who do not have the disease.²
- There is even a growing body of research that shows a person's hearing health and their cardiovascular health correspond.³

When you consider these factors, the appeal of better hearing becomes even stronger. This goal, the goal of better hearing, is achievable when you have the right kind of professional help on your side.

Meet Elkhart Audiology Rehab



Sharon Zastrow

Board Certified Audiologist



Within a 50-mile radius of Elkhart County, there is only one Board Certified Audiologist. She is Sharon Zastrow, owner of Elkhart Audiology Rehab (EAR). This certification is meaningful in two ways. First, it illustrates Sharon's commitment to continuing education and training. Second, it speaks to her business approach—one that is founded in integrity and ethical behavior.



Beyond the certification, Sharon's top priorities are to (a) understand your hearing-related concerns and (b) provide you with honest information regarding your improvement expectations. To do so, she combines her education and skills with leading technologies and rehabilitation techniques.

The result is an unparalleled level of care.

There are other approaches—businesses whose purpose is to simply sell hearing aids or service providers who administer only rudimentary testing procedures. But these won't do when your goal is better hearing.

The personalized approach of Elkhart Audiology Rehab is the answer.

The EAR Approach to Better Hearing

As you might suspect, today's technology has had a positive impact on hearing evaluation. Sharon uses all available technologies to get you on the path to better hearing. This pathway is referred to as a **Diagnostic Hearing Evaluation** and consists of several tests. While Sharon's process is thorough, it is not complicated. She will save you time and be with you on every step.

Priority One

Interestingly, the first step has nothing to do with technology. **She LISTENS.** She will prompt you with questions such as family history and overall health concerns. She will want to know when you began to sense hearing loss and if you also suffer from tinnitus or dizziness. Primarily, however, she will listen. Only you can reveal the concerns you may have regarding your hearing health. As she evaluates your history and test results, she competently will advise you how to best proceed.

Otoscopic Evaluation

This simple test will check for the buildup of cerumen (or ear wax), the integrity of your ear drum, and any abnormalities of the ear canal that may affect testing or require medical attention. It is an essential step for subsequent procedures.



Pure Tone Conduction Test

A **pure tone air conduction test** measures the softest, or least audible, sound that a person can hear. During the test, you will wear insert earphones and hear a range of sounds directed to one ear at a time. The loudness of sound is measured in decibels (dB). The tone of sound is measured in frequencies (Hz). The normal hearing range is from 250-8,000 Hz at 25 dB or lower for adults and 15 dB or lower for children. The pure tone test is repeated using a bone conduction device to assess similarities and differences to the air conduction thresholds obtained to assist in the diagnosis.



Word Recognition Test

A **word recognition test** (also called a speech discrimination test) assesses a person's ability to understand speech. If your speech discrimination is poor, speech may sound garbled. This test is routinely completed in quiet and without visual cues.

However, an additional test in the presence of background noise may also be performed when trying to diagnose your auditory processing abilities. This speech-in-noise test is often used as a tool to determine if directional microphones or other types of assistive

devices may be needed to optimize your hearing abilities.

Tympanometry Test

A **tympanometry test** detects problems in the ear such as fluid buildup, perforated eardrum, or ossicular bone damage. Acoustic reflex testing evaluates the automatic response of the brain stem to a sound presented to the ear at various frequencies.

Otoacoustic Emission Test

An **otoacoustic emission test** (OAE) measures an acoustic response that is produced by the inner ear (cochlea), which in essence bounces back out of the ear in response to a sound stimulus. The test is often used with young patients or those that may be difficult to test since it does not require the patient to participate but only to sit reasonably quiet. If there is an emission present for those sounds presented that are critical to speech comprehension, then that person has “passed” the hearing screen. It is possible to pass this test and still have a problem processing auditory information. So it may be used as part of a test battery.

ABR/BEAR Test

An **ABR/BEAR test** is another evaluation method that uses a stimulus presented to the ear that detects a neurologic response triggered by the auditory brain stem. This test is often used with infants as part of their evaluation before they leave the hospital and with individuals that are difficult to test. Sharon currently refers this test out when indicated.

Tinnitus Testing

This testing may also be incorporated depending on the onset and severity of the symptom. A medication review and Tinnitus Handicap Inventory start the process and further evaluation continues as indicated. Several treatments are available to address tinnitus including the use of hearing devices, sound generators, sleep pillows and sound therapy.

Test Conclusion

Sharon will explain your hearing test results on the day of your evaluation and provide a written report for your family physician. If any medical concerns need to be addressed, she will provide the appropriate referral. If you demonstrate a sensorineural hearing loss and wish to learn about how a hearing aid might be helpful, then you may proceed with a hearing aid consultation.

From Test to Hearing Management Plan

If your hearing evaluation has indicated that you should treat your hearing loss with a

hearing aid, then additional information will be taken to determine just how your hearing problem impacts your day-to-day life as well as the lives of your family.

The results from your hearing test will provide Sharon with an outline of what sounds you may be missing or hearing, but the personal answers about your daily life and perception about your hearing provide the basis for a better solution. Things like your vision, dexterity, and any other health concerns like diabetes should be taken into consideration before choosing hearing aid features.

Once Sharon explains what sounds you are and are not hearing, you will get an opportunity to see and touch different styles of hearing aids. In some cases, you may even be able to listen to a hearing aid. Based on her many years of experience Sharon can recommend the best hearing aid style, features, and level of sophistication based on your degree of hearing loss, physical needs, budget, and listening demands. The final decision on which hearing aid is purchased, however, is your personal choice.

Once you make a decision, Sharon may take impressions of your ears if you selected a custom hearing aid or a behind-the-ear hearing aid that requires an earmold. Hearing aids must usually be ordered from a manufacturer and then programmed by your audiologist to meet your specific hearing needs. This process can take a few days or a couple weeks, so do not be disappointed when you do not receive your hearing aids the same day as your consultation. All hearing aids are fit with a 30-day, money-back return privilege.

At your hearing instrument fitting a special prescription will be installed/programmed into your devices based on your hearing loss, upper level of discomfort, and prior experience with amplification. Then a test called real ear or “speech mapping” is completed to determine how that prescription is working on your ear. It helps to ensure audibility and to verify hearing device performance with different input levels.

This real ear testing is critical to success with hearing devices and increases patient satisfaction with them. Despite that, only 30% of audiologists use this “best practice” of care. Sharon will complete real ear as part of your fitting and also use it to monitor hearing aid performance over time. Why? She believes in best practices!

Electroacoustic analysis is also a test method to ensure hearing aids are working properly. It can test for distortion measurements and battery drain. When hearing devices come from the factory either new or after a repair they should be tested in this manner to ensure quality standards have been met.

The Elkhart Audiology Rehab (EAR) Difference

Did you know that you could buy hearing aids directly from Internet sites, including big box retailers? Stop and think about that. First, you can not know that you even need hearing aids without some required testing. Further, you can not know how the selected device will fit or even know if it is the right kind of device for your needs. To reduce price, some providers sell used devices, new but no longer manufactured, or those without a warranty. That means you could face expensive repair bills.



Other chain or big box hearing centers can “lock” their software in the hearing aids they provide. That means that the devices can only be serviced by the original company or affiliate.

Of greatest concern here, however, is that you get what you pay for. The low-price leader does not speak to quality (of service or provider).

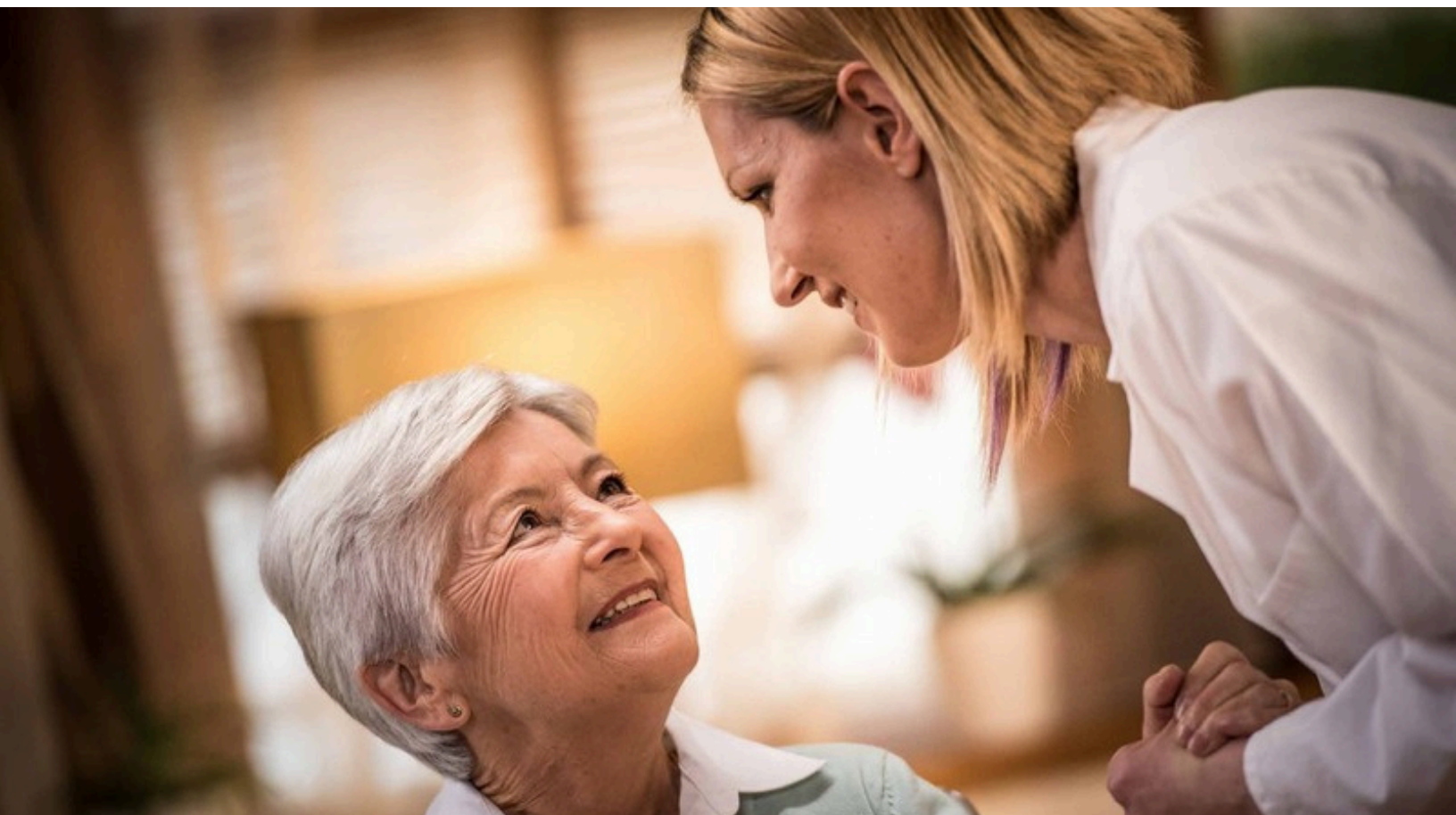
Consolidating healthcare institutions have also begun in-house hearing testing. Theirs is not the low-cost approach by any means. But theirs is the impersonal approach. To these large institutions, you are simply a patient undergoing a test, a number in a waiting room lineup. This cold and impersonal methodology does little to ensure that a proper and personalized evaluation and hearing management plan can be achieved. It is not the pathway to maximizing your hearing outcomes.



Elkhart Audiology Rehab brings a distinctive value proposition to this discussion. Once more, Sharon is the only Board Certified Audiologist in Elkhart County. The stated core value of EAR is “providing ethical, relationship-based hearing care.” Responsive service, tailored to your individual needs—this is her focus.

The clinical approach to better hearing taken by Sharon is a stark contrast to the retail approach you may get elsewhere. She doesn’t just want to sell you something. She wants you to hear better. In addition, she provides a “functional” communication assessment.

In other words, it’s all about you and your success in everyday life situations. That’s a contrast to the superficial “beep” tests performed by others.



Ongoing, follow-up care is also a hallmark for EAR. You’ll need cleanings, adjustments, and batteries replaced. From upfront testing to your hearing improvement plan to hearing aids to routine care, you will never feel rushed. For Sharon and EAR, it’s not a transaction, it’s a relationship.

Evolving Hearing Technologies

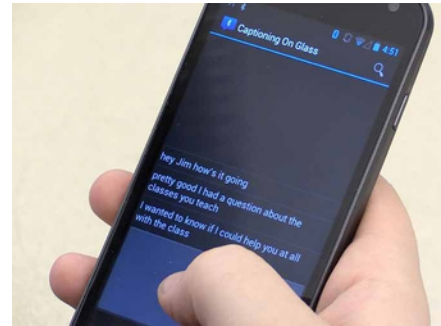
The technology revolution has not left the hearing impaired world behind. Significant advances are taking place and Sharon strives to stay fully up-to-date of these emerging technologies so that she can get you hearing better.

Some such technologies make life easier for the hearing impaired. Such devices include speech-to-text telephones, light-up doorbells, special smoke detectors, vibrating alarm clocks, and more.

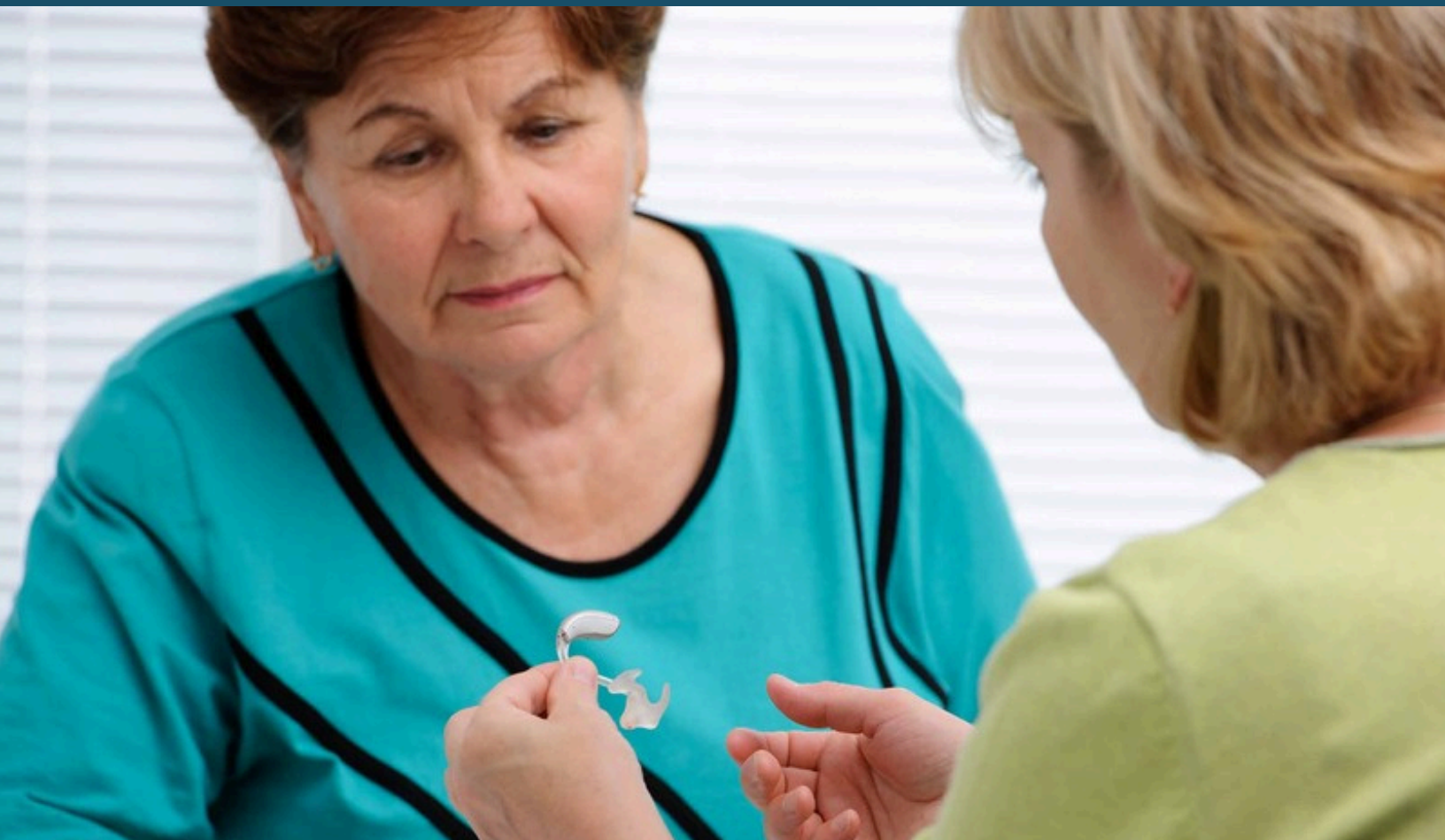
One tech-based service offered at EAR is known as LACE for Listening & Communication Enhancement. This auditory training program is like physical therapy for hearing. It's a software program that can help you develop skills and strategies to deal with situations when hearing is inadequate. Whether you wear hearing aids, are just acquiring aids, or simply wish to improve your listening skills, LACE training will help you get the most out of the sounds of life.

Hearing aids are also evolving and becoming feature rich. For instance, some enable Bluetooth communications so that you can use your smartphone to make adjustments. Others offer advanced technological capabilities. Keep in mind, however, that feature-rich devices are more costly. EAR can help you find the right combination of features and cost.

Sharon offers hearing aids from known, quality brands such as Signia/Siemens and GN ReSound and she is kept fully informed of the evolving technologies. She can advise you on just the right combination of fit, style, and features that your hearing improvement plan dictates.



So What's Next For You?



You want to be on your way to better hearing. It's easier than you think. Contact Sharon at Elkhart Audiology Rehab to get your improvement plan underway today.

Elkhart Audiology Rehab

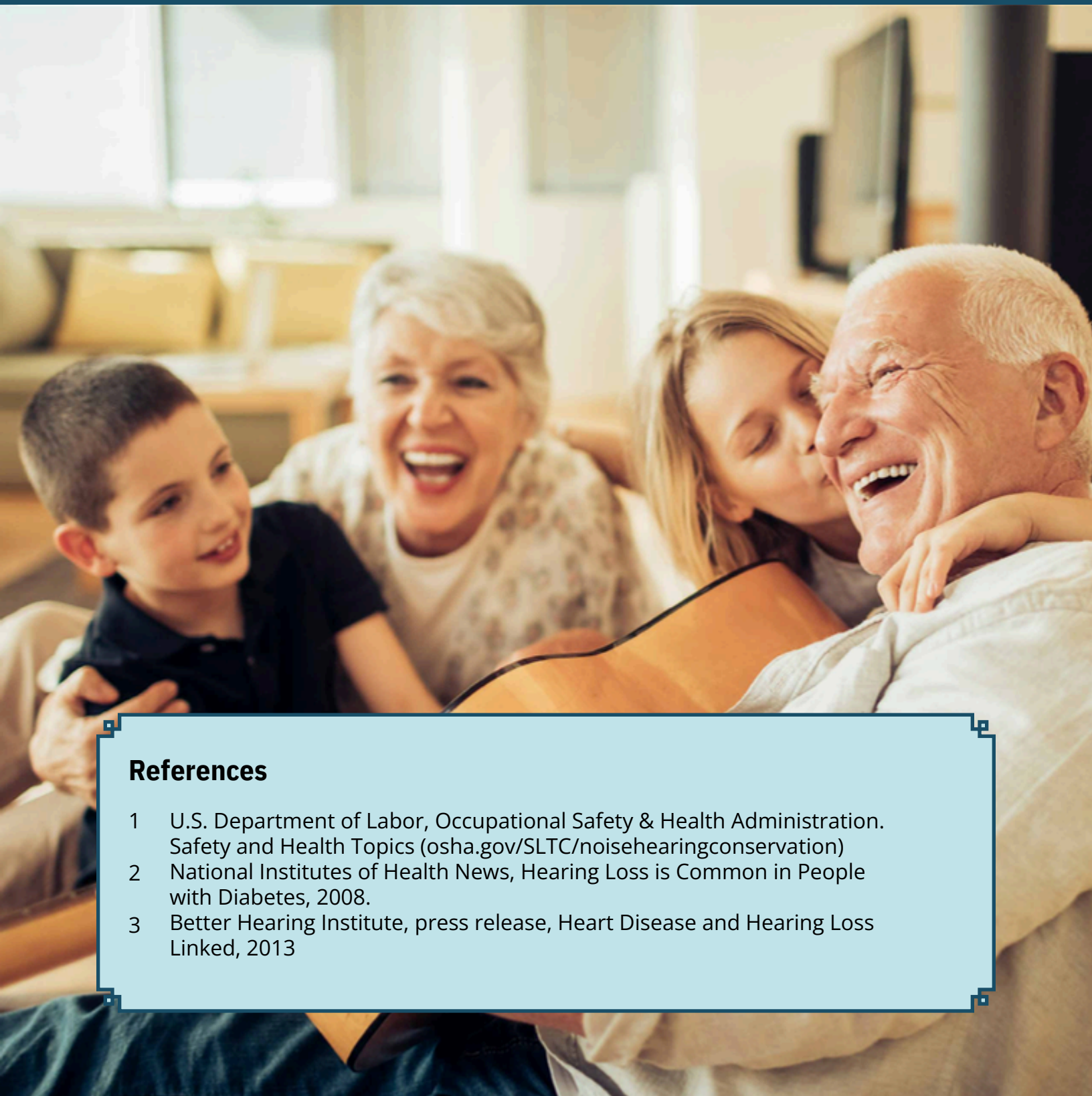
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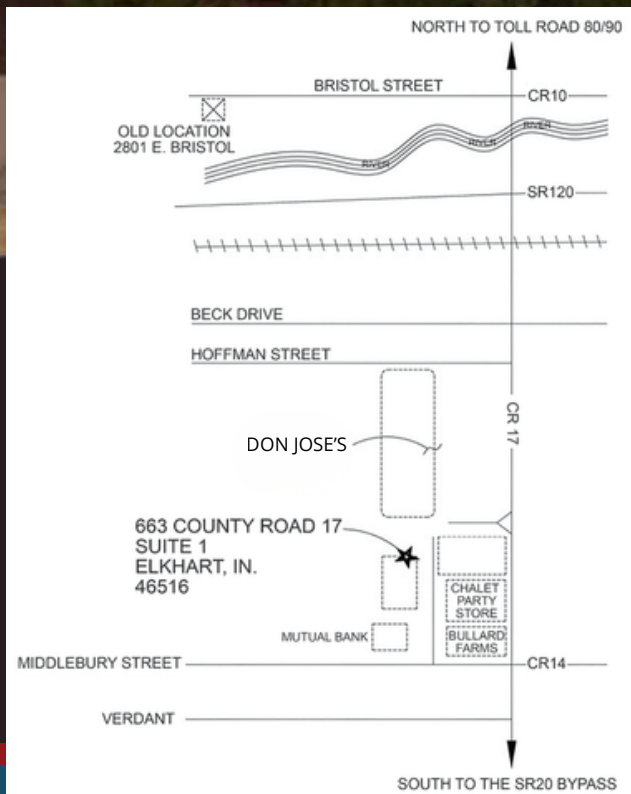
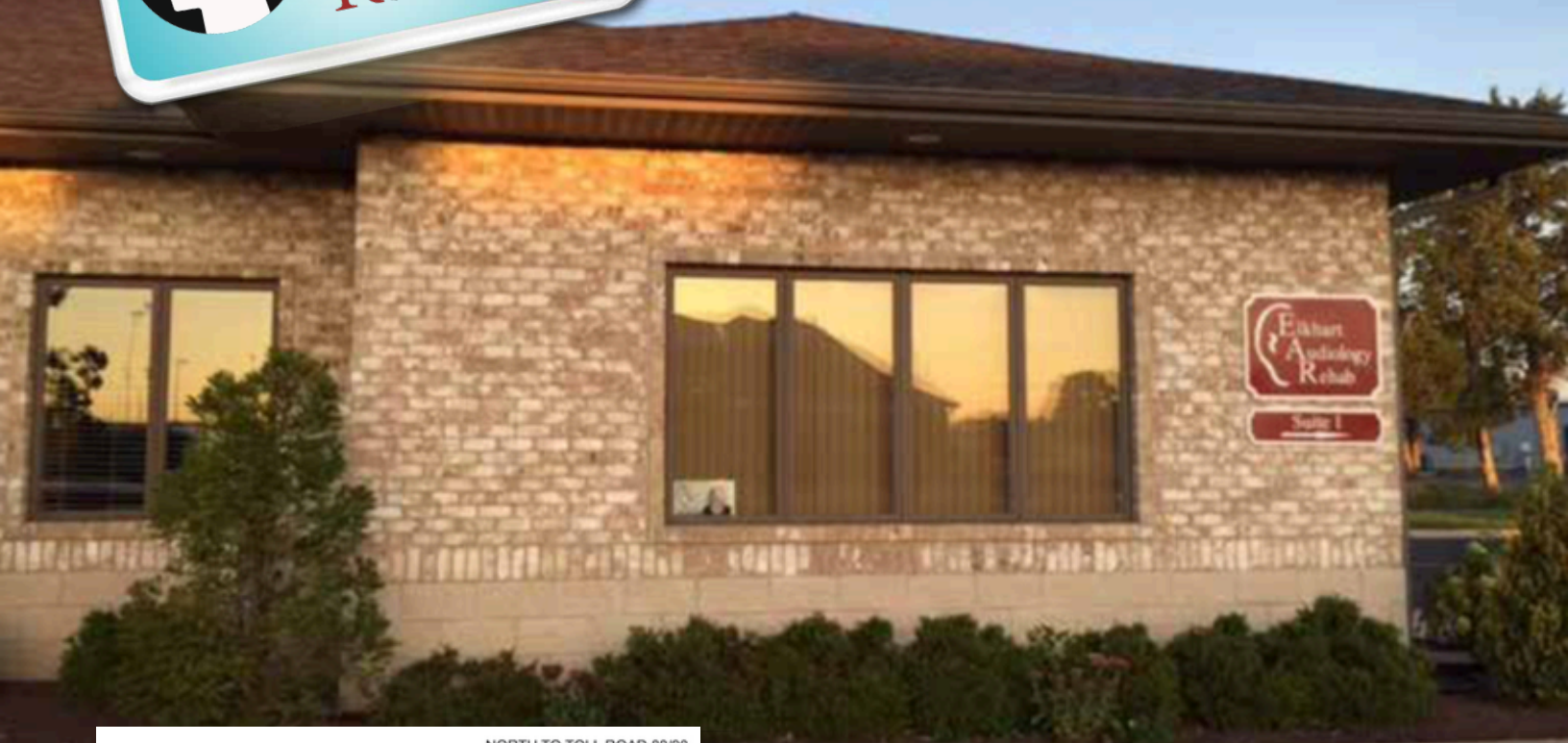
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- 2 National Institutes of Health News, Hearing Loss is Common in People with Diabetes, 2008.
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