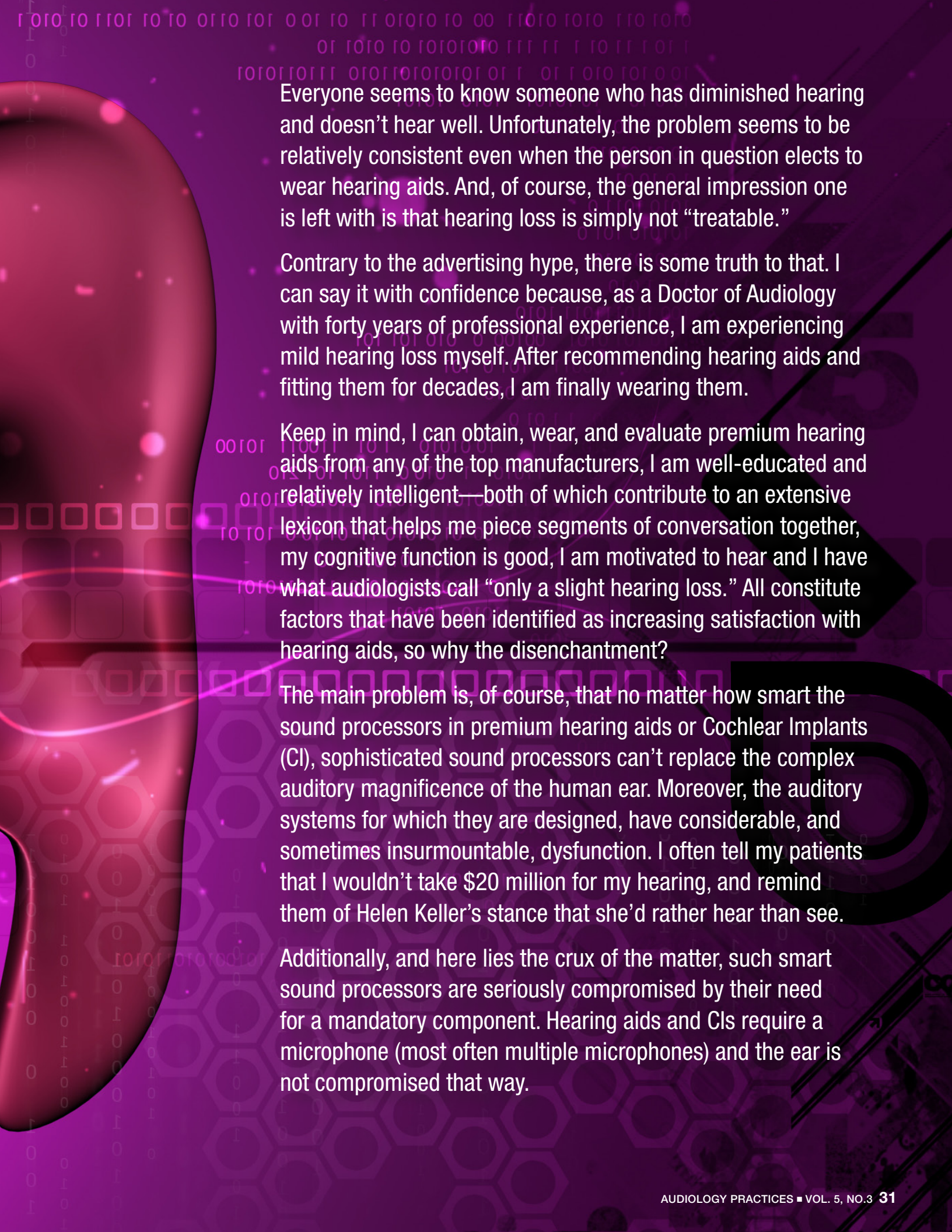


Used Alone, Hearing Aids Fail to Deliver

by Linda S. Remensnyder, Au.D.





Everyone seems to know someone who has diminished hearing and doesn't hear well. Unfortunately, the problem seems to be relatively consistent even when the person in question elects to wear hearing aids. And, of course, the general impression one is left with is that hearing loss is simply not "treatable."

Contrary to the advertising hype, there is some truth to that. I can say it with confidence because, as a Doctor of Audiology with forty years of professional experience, I am experiencing mild hearing loss myself. After recommending hearing aids and fitting them for decades, I am finally wearing them.

Keep in mind, I can obtain, wear, and evaluate premium hearing aids from any of the top manufacturers, I am well-educated and relatively intelligent—both of which contribute to an extensive lexicon that helps me piece segments of conversation together, my cognitive function is good, I am motivated to hear and I have what audiologists call "only a slight hearing loss." All constitute factors that have been identified as increasing satisfaction with hearing aids, so why the disenchantment?

The main problem is, of course, that no matter how smart the sound processors in premium hearing aids or Cochlear Implants (CI), sophisticated sound processors can't replace the complex auditory magnificence of the human ear. Moreover, the auditory systems for which they are designed, have considerable, and sometimes insurmountable, dysfunction. I often tell my patients that I wouldn't take \$20 million for my hearing, and remind them of Helen Keller's stance that she'd rather hear than see.

Additionally, and here lies the crux of the matter, such smart sound processors are seriously compromised by their need for a mandatory component. Hearing aids and CIs require a microphone (most often multiple microphones) and the ear is not compromised that way.

All hearing aids and all CIs use microphones.

Product schematics will confirm that the microphone is the *first* component *followed by* sound processors that are fully dependent upon microphone input. And all microphones have three annoying characteristics: they pick up what is loudest, they pick up what is closest and they have absolutely no idea which sound is important to the listener.

Think about the frustration that's involved when a speaker turns her face away from a lapel microphone causing the intensity of her speech to drop proportionately for the listeners. Think about an individual being interviewed with a handheld microphone, whose speech audibility is sacrificed when he fails to direct his responses toward the microphone.

Thus, despite wearing my top-of-the-line hearing aids, if my daughter decides to whisper an aside (a piece of gossip, if you will) that only her mother should hear in a busy restaurant, I don't catch it (microphones amplify best what's loudest and other voices in the vicinity are louder). If my granddaughter, age four, decides to tell me she wants to marry her uncle when she grows up while sitting around the family dinner table, I don't catch it (microphones amplify best what's closest and voices other than hers are nearer).

If I go to a live theatre or a lecture and choose to sit in any row other than the first five or so, I don't catch a lot of what is being said. My premium binaural hearing aids don't even allow me to catch all the dialogue on my television—no matter whether it's big screen or small screen, sound bar option or surround sound installation. In all cases, the dialogue of the performers is just too distant from the hearing aids' microphones and the microphones have no way of knowing what's important—that the TV or stage dialogue is more important to me than other voices (and noises) in the room.

Broadcasting to the public that hearing aids satisfy audibility requirements for ears with diminished hearing is a gross falsehood. Sure hearing aids help, otherwise I would have left the profession shortly after starting my practice 32 years ago. But what helps just as much (and some of my patients say, *even more*)?

Two things: First, teaching those with diminished hearing and their family members *Communication Strategies* that take into account the inherent deficiencies of microphones. Such tactics (and there are dozens of them) need to be memorized and steadfastly employed when there is hearing loss in the family. As you can see in Figure 1, teaching these communication strategies is an interactive process that my practice has chosen to actively embrace.



Figure 1. Teaching communication strategies.

For example, the “Walk before You Talk” mantra, which instructs that “the person who starts the conversation must find the listener even if the listener is the one who has normal hearing,” capitalizes on the fact that hearing aid microphones pick up best when the speaker's voice is at a distance of only three to six feet. It also illuminates the point that doubling the distance between the speaker and the listener halves the intensity of sound.

The directive to “use the name of the person with diminished hearing prior to requesting he do something” is a key communication strategy. Such family habits alert the listener to focus his brain on the message that is directed to him, while the hearing aid microphones are busily occupied amplifying other voices in the vicinity that may be closer or louder.

The directive, “if you want to hear, get where you need to hear early so you can sit as close as possible to the podium or the pulpit because your hearing aid microphones can only stretch so far” is another important strategy to share with patients. Collectively, this line of counseling is called patient empowerment and it's crucial.

The second thing? Hearing Loops. All of my patients have a telecoil as a component in their hearing aids. This small inexpensive magnetic receptor allows the listeners to link directly into a sound system in places where poor acoustics, background noise, or distance issues sacrifice the ability of hearing aids microphones to pick up what's important (see www.hearingloop.org for details).

Not long ago, I attended a live theatre performance of Peter Pan with my two granddaughters. There is no hearing loop installed at the theatre. My expensive hearing aids' microphones picked up what was closest—a youngster behind me who was eating from a plastic bag so all I heard was the

rustling of the plastic. Her grandparents were older and, like 80% of the people with hearing loss, didn't address their own diminished hearing. They, therefore, didn't hear the rustle, and I doubt they heard the performance. Make no mistake about it, even when the youngster finished her snack, I still couldn't hear the stage dialogue because the performers were too distant and the theater's sound system was not in close vicinity to my hearing aids' four microphones. Contrast that experience with my patients who access their telecoils while sitting up in the choir loft at a looped place of worship. The hearing loop allows them to hear the minister whisper to a mother to move her baby's head closer to the baptismal font!

Thankfully, there are now thousands of places in the U.S. that have hearing loops installed—from airports to sports stadiums, from tour buses to taxicabs—and the number of looped venues is accelerating. Hearing loops are also being installed in living rooms and family rooms for optimally enhanced audibility of the television.

Here is the bottom line: Hearing aids do not return hearing to normal. Yes, there are great advancements in hearing aid technology but all advancements are compromised by the shortcomings of the mandatory component of a microphone. The American Academy of Audiology, the Academy of Doctors of Audiology, and the American Speech-Language-Hearing Association have published a joint initiative to encourage audiologists to “provide information on hearing assistive technology, listening training, and counseling.” Until all hearing care providers provide microphone “workarounds,” hearing aids will come up grossly lacking and they'll be underutilized as well. ■

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How three competitors made a difference for movie buffs.

The main objective with hearing loops and telecoils is helping your patients hear in critically important places, like auditoriums, subway stations, airports and at home. Here is an example of how a group of private practice audiologists lobbied a local movie house to provide a hearing loop.

The Landmark's Renaissance Place Cinema, a five-screen theatre in Highland Park, IL was undergoing renovation. I approached the CEO, Ted Mundorff, to encourage him to have induction hearing loops installed in each of the five theatres. He listened and, because it wasn't new construction, the installation fee was pretty high. Rather than giving up, I approached Paul Pessis, Au.D., owner of North Shore Audio-Vestibular in Highland Park, Ronna Fisher, Au.D., owner of Hearing Health Center in Highland Park, and Carly Girard, Au.D., owner of Hearing Associates, Inc to supplement my personal contribution as Founder of Hearing Associates, to jointly form a “Community Partnership” to get this loop installation off the ground. All of the parties have their waiting rooms looped. Figure 2 is a Title Card which is placed prominently on all five screens (the entire width and height of the screen) prior to the theatrical presentation.

Landmark is a high-end theatre and renovations include digital screen production, a bar with alcoholic beverages, an expanded food service, which includes both gluten-free and organic food selections, and reclining chairs. Private practice audiologists played a significant role in providing better hearing ...and better living to an important group of their loyal customers.



Figure 2. Theater title card.

12 CRITICAL COMMUNICATION STRATEGIES FOR PATIENTS WITH HEARING LOSS



Keep in mind that hearing aids work best at distances of three to six feet. The following 12 steps will assist you in achieving optimum communication and help extend your “hearing range”:

1. Remind your family that there is hearing loss in the family and that the family, as a unit, can make many accommodations to ensure communication doesn't break down. These are learned responses that need to be implemented for a lifetime similar to the change in eating behavior by family members who have a loved one with diabetes.
2. Instruct your family members to use your name before speaking. This alerts you that a message is directed to you and allows your brain to focus. Otherwise, when you hear someone speaking, you don't know if that person is speaking to himself, to the television, or to the dog and it's easy to dismiss what is heard and categorize it as not pertinent to your ears.
3. Explain that listening involves more than just ears. Encourage family members to “walk before they talk” and face you so you can use lipreading cues, facial expressions, and gestures to help you piece the message together.
4. Instruct others that hearing aids amplify what is closest and what is loudest so ask to have seating arrangements positioned so that those who are difficult for you to hear are located on either side of you.
5. Reconfirm with family members that hearing aids, even those with speech finding capabilities, don't know whose speech is important. Remind them that, if they want your attention, they need to turn off the radio in the car and the television during meals.
6. Tell those who speak rapidly to slow down. Research has shown that individuals over 50, even those with normal hearing, have problems understanding fast speech. Considering the aging of America, this will help them be better communicators for everyone.
7. Remind family members to rephrase rather than repeat. Explain that if you didn't get it the first time, raising the volume of their voice and repeating the message generally won't help. Some sounds are easier to hear than others and often a shorter sentence is easier to follow especially if accompanied by gestures.
8. Personally review the noise level ratings when purchasing products for the home. From dishwashers to automobiles, get the quietest model and pay extra if supplemental sound deadening is available even if the price tag goes up. This is critically important if your family wants you to hear in the kitchen or in the car.
9. Call first before attending a class or lecture and insist that the speaker use a microphone when reserving your seat. Once you get there, if the speaker expresses reluctance insisting that he speaks loudly enough, when the individual elevates his voice and asks those members of the audience to raise their hand if they need the microphone, raise your hand. If the facility doesn't provide a microphone, get there early to get close and see, and explain to the organization that they are breaking the Americans with Disabilities Act (ADA) mandate to provide equal access.
10. Read the critic's review of a restaurant. Despite the review stating that the food is great, the service impeccable, and that the place has wonderful ambience; if it also says it's “conversationally challenged,” choose a different restaurant.
11. Always, but always, make a reservation when going out to eat and inform the person taking the reservation that you need a quiet table. Once you arrive, remind the hostess that you requested a quiet table and, if it's a familiar restaurant, make a mental note of which tables have the best sound isolation so you can request a specific table in the future. Then visually scan your surroundings. Avoid sitting near the entryway, the kitchen, the bar, the bus station, and do not sit near any music source. Then, when you sit down, choose the seat that places your back to the noise. When you leave the restaurant if you were dissatisfied with the lack of audibility there, tell management about your experience and inform them you won't be back. Restaurants are beginning to “listen” and the baby boomer population, because it controls 70% of the nation's disposable income, is receiving desired accommodations to attract them.
12. If the venue has poor acoustics due to reverberation, background noise, or distance issues, request that management install a hearing loop. Drop off a loop card (see attached) and tell the performance venue that you will not renew your subscription until they do so. If the venue is your personal place of worship, ask to do a fundraiser or ask to have your tithe redirected to loop installation. A method that has worked for our practice is that when a patient passes, family members request that memorials be funneled into an installation of a hearing loop which serves as both a testimony and a legacy.

And remember, remember, remember:

“When it comes to hearing better, passivity is not an option”—Mark Ross, Ph.D.