

Myths and Facts about Hearing Aids

Myth: Hearing aids make your hearing normal again.

Fact: The most common cause of hearing loss is nerve damage in the Inner Ear. A normal hearing ear has between 40,000 – 50,000 hair cells or nerve endings that provide an electrical signals to the brain. Damage to these hair cells can occur from a number of different pathologies or combination of problems including: Medication, genetic predisposition, noise, presbycusis and other health risks like diabetes or cardiovascular disease. Hearing aids do not fix or regrow the hair cells but amplified volumes from the hearing aids will stimulate the hair cells that are remaining.

Hearing loss typically comes on very gradually. Because of this, the brain often is unaware of the change in hearing sensitivity and quality. The brain forgets how “normal” hearing actually sounds. This is why it is important to treat hearing loss early in its progression. The brain needs to RE-LEARN how to hear and listen. The longer the hearing loss goes untreated, the more severe the hearing loss is before treatment and the older the brain is before retraining begins – the tougher it is to acclimate to hearing aids. Patients will initially say “Hearing aids don’t sound normal” and I say “that’s OK, because normal for you right now is an impaired signal and a hearing loss”. My patients are reassured that their brain will relearn how to listen and the aided signal will become “normal” hearing. Aural rehabilitation exercises and wearing the hearing aids for at least 8 hours a day will help the brain transition more rapidly.

Myth: Hearing loss doesn’t affect my overall health so I can put off treatment.

Fact: Untreated hearing loss (even mild hearing loss) increases the risk of experiencing COGNITIVE DECLINE, DEMENTIA, SOCIAL ISOLATION and DEPRESSION. It is theorized that hearing loss increases the “cognitive load” on the brain, taking away resources the brain uses for other functions like short-term memory and processing information. According to studies (F. Lin, S. Curhan) older adults with hearing loss developed a significant impairment in their cognitive abilities 3.2 – 7 years sooner than those with normal hearing. Studies have found that hearing aid use can reverse and even prevent some of these conditions.

The longer people wait to be treated for hearing loss, the more the brain has to “re-learn” in order to use the amplified signal. This can make it difficult to acclimate to hearing aids. It also reduces the aural processing skills that allow the brain to focus on a particular signal while suppressing another signal or understanding speech when in background noise (#1 reason people get hearing aids).

Myth: To save money I can buy a hearing aid online or use my brother's old hearing aids.

Fact: All states require a license to sell/fit hearing aids. Some states outlaw all internet sales of hearing aids (FL, CA, NV, CT, TX, WA, OH, MO, OR, MD). For individuals selling their old hearing aid through sites like EBAY, it is a second degree misdemeanor. There may also be legal action for any damage done to the buyer's hearing as a result of inappropriate power or fit.

I have also had a handful of patients who purchased hearing aids online only to find out they had purchased stolen hearing aids (which must be confiscated and sent back to the manufacturer for possible criminal investigation) or found out that the hearing aids were inappropriate for their loss and unable to modify due to proprietary or locked software.

Most importantly, buying a hearing aid online removes critical components of a successful fitting. Thorough testing prior to using a hearing aid is important to make sure there are no underlying pathologies. Hearing aids are a complex medical device that have the potential to cause further hearing damage if not properly programmed. That programming is dependent on an individual's hearing loss, ear canal resonance and experience level. It is rare that someone else's hearing aid is appropriate for someone else's specific needs.

Hearing aids use special computer software and hardware to make adjustments which a consumer cannot access. If you have purchased an online hearing aid you may be able to find an audiologist to make program adjustments but you will be expected to pay for services so often there is little to no savings.

Myth: Hearing Aids will be available over-the-counter in 2 years. I should just wait until then so I can purchase something cheaper.

Fact: Hearing aids are not like glasses where vision can be instantly corrected to 20/20. Hearing loss is as unique as the brain because we hear with our ear but listen with our brain. But Over-the-counter hearing aids are coming. Here's what we know so far - The FDA has approved the development of OTC hearing aids to be released in 2022. Regulations for proper distribution are still being developed. It is estimated that these "hearing aids" will cost about \$500-\$800 per instrument and designed specifically for people with mild hearing losses. They will likely have technology support for how to manipulate the hearing aid settings but not audiological support to determine what settings are appropriate. Product flexibility will be limited in order to keep people from causing further damage to their hearing. OTC products will be most appropriate for people with good technology knowledge and smartphone skills (app driven products are likely).

One of the distribution issues is that people with hearing loss are often very poor reporters of how severe their hearing loss may be. Remember, hearing loss typically has a slow progression and many people are unaware of what they may be missing. Other problems to overcome is how will the patient know the degree and slope of their hearing loss. Some developers have suggested using an app based hearing test. These self-tests have historically been inaccurate. It is common for people to have normal hearing in some frequencies and more severe loss in other frequencies. If consumers opt to get OTC hearing aids they may be over amplifying some frequencies and not correctly amplifying others. Remember, what a hearing impaired person

thinks is NORMAL is probably NOT NORMAL because their brain has forgotten sounds. Studies of self-directed volume settings show that patients commonly under-fitting their hearing loss in order to have sound be more comfortable or “NORMAL”. A proper hearing aid fitting will use validation measures to ensure the hearing aid settings are appropriate for the individual – not based on a one-size-fits-all product. Over the counter hearing aids may have place in the hearing aid market but everyone should start with a diagnostic hearing evaluation in order to rule out correctable hearing losses, comorbid pathologies like diabetes, tumor or heart disease and to validate that OTC hearing aids are appropriate.

Traditional hearing aid fittings incorporate multiple adjustments, counseling and support. These important components to successful hearing aid use will not be available with OTC hearing aids. OTC aids will also have very limited functionality because they are being designed as the entry level product for mild hearing loss. They will have minimal volume and limited features assuming that those people who are good candidates for this product will be young wearers with good aural processing skills, good technology skills, good dexterity and visual skills and will be able to troubleshoot the product settings without direct support. They will hopefully encourage more people to get amplification earlier, helping to ensure success over the years as wearers move to more traditional products as hearing loss progresses and more complicated technology is needed.

Myth: The more expensive my hearing aids, the better I will do with them.

Fact: The #1 factor for hearing aid success is early intervention. Using the natural processing skills to aid in signal-to-noise performance is best. When the brain has more natural abilities, less technology is needed to accomplish this goal. Less technology advancement is less expense. Having said that, people who have demanding environments or significantly reduced aural processing skills need to have hearing aids that improve the speech-to-noise ratio through advanced technology that can filter ambient noise, incorporate directional cues and provide speech signal enhancement. These features will be more expensive.

In order to assess which level of technology is most appropriate, a thorough evaluation is needed. This evaluation should include a Speech-in-noise (SIN) test and perhaps the use of a “recording hearing aid” which can track a patients’ unique acoustic environments and show which hearing aid features are being used. We call this our FLEX TRIAL program. This data quantifies feature use and benefit. It also gives patients an opportunity to try some of the new technology features to validate benefit before buying.