

Hearing Aid Services of Hollywood

maximizing your hearing potential
with today's technology

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Jeff's Corner Hearing Instruments and Brain Function

This is a follow up to the article entitled *Improve Your Cognitive Functioning* from Issue 36 of our newsletter. In that article, we stated, "As we age, our *cognitive functioning* (the ability to acquire knowledge through thought, experience and the senses) slows and becomes less efficient. The trend appears to be irreversible, but studies also indicate that the pace of cognitive decline can be decreased."

A study published in October 2015 showed that wearing hearing aids reduced the cognitive decline that accompanies hearing loss. I have copied a summary of the findings below:

"Researchers compared the trajectory of cognitive decline among older adults who were using hearing aids and those who were not. The study found no difference in the rate of cognitive decline between a control group of people with no reported hearing loss and people with hearing loss who used hearing aids. By contrast, hearing loss was significantly associated with lower baseline scores ... on a well-recognized test of cognitive function, during the 25-year follow-up period, independent of age, sex and education."

Donald Schum, PhD, Vice President of Audiology and Professional Practice for Oticon, stated: "The study indicates that people with hearing loss who wear hearing aids have the same risk for age-related cognitive decline as people without hearing loss. But cognitive decline is accelerated for the people who

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Widex's Unique Approach to Improved Hearing

Widex has always been an innovative company; they were the first manufacturer of fully digital hearing aids in 1996. In November 2015, the new *Unique* line of products was introduced, promising a superior listening experience in all acoustic environments. I have been evaluating the Unique and have been impressed with its features and performance.



Sound environments are constantly analyzed by Unique's powerful analog-to-digital converters and are classified into one of nine categories. The computers in each instrument continuously communicate with each other to instantly select the appropriate category, maximizing speech understanding while keeping noise at a minimum. The program changes are seamless, so all the listener hears is the best speech signal possible.

Loud sounds have always presented problems for hearing aid users. This is due to the input limits of the hearing aid's amplifier (an *input limit* is the highest level of sound that a hearing aid is capable of handling without distortion). Sounds that are above the input limit will be either clipped or compressed. A clipped signal sounds

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have hearing loss and don't use hearing aids. With this study, we are seeing for the first time evidence that hearing aids are a prevention against accelerated cognitive decline in later years."

The study's findings show the benefit of using hearing aids to restore hearing ability late in life. Unfortunately, statistics reveal that most people wait, on average, seven years before they obtain hearing aids. Furthermore, seventy-five percent of older individuals with hearing loss who could benefit from hearing aids choose not to wear them. We now see that this decision could have a harmful impact on the cognitive functioning of this population as they advance in age.

Fortunately, if you are reading this article, you are part of the twenty-five percent who took action to improve the quality of their lives by using hearing instruments. I think you should find this good news. I hope you and yours are enjoying a healthy and prosperous 2016.

Jeff

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distorted. When a sound is compressed, the loudness of the signal is reduced, resulting in a muffled, unclear quality. Most manufacturers can manage only a 100 to 105 dB input limit. Widex's Unique has a 113 dB input limit, by far the best in the hearing aid industry. This feature allows for exceptional sound quality without distortion for all levels of loudness.

Wind noise is the most common complaint of hearing aid users who have active outdoor lives. Unique's advanced wind processor dramatically reduces wind noise by 8.4 dB. In everyday terms, this means that the wind noise is cut to about twenty-five percent of its real loudness. Now, activities such as sailing or riding a bicycle can be enjoyed without the annoying buffeting of wind on the microphones.

There are many other systems and features that make the Unique an excellent choice to improve your listening enjoyment. If you'd like to find out more, give me a call to set up a demonstration.

Important Hearing Aid Battery News

Zinc-air batteries have been the mainstay of the industry for decades and are likely to remain so for years to come. Recently, due to federal environmental guidelines, mercury has been removed from zinc-air batteries. Eliminating mercury from the chemical process has increased the time needed for the battery to generate its 1.45 volt potential after the sticker has been removed.



The hearing aid and battery manufacturers recommend that you **let the battery sit for a full minute after removing the colored tab** before inserting it and shutting the door to turn on the device. This allows the voltage in the battery to rise to full working potential and ensures that the hearing aid will function as designed. If you don't follow this procedure you could experience the following:

1. Shorter battery life
2. Decreased hearing ability due to reduced voltage available for the amplifier
3. Inability to change programs
4. Distorted sound

Other issues that can affect battery performance

Aside from this new mandate, other factors can affect how your hearing aid batteries function. Two major causes of reduced battery life are temperature and altitude.

As **temperature** is reduced, the catalytic reaction creating electricity in the battery slows down. For the most part, this will not occur if temperatures are above 40 degrees Fahrenheit. It shouldn't be a problem here in Southern California, unless you travel to cold winter areas or work in a cold indoor environment (e.g., in refrigeration) all day.

As **altitude** increases, the amount of air present in the atmosphere is reduced. Less air causes the battery to reach its endpoint earlier. One of my clients reported that her hearing aids were almost non-functional when she was skiing in the Alps at over 10,000 feet elevation. She was amazed that the aids got louder as she skied down the mountain and returned to full volume at 5,000 feet.

Combining high altitude with low temperature can lead to more rapid battery failure. A good rule of thumb is to make sure you have plenty of extra batteries when traveling, regardless of the climate at your destination.