

# **The Consequences of Untreated Hearing Loss: Why You Shouldn't Wait To Seek Help For A Hearing Difficulty**

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After over 30 years as an audiologist, I have heard a lot of reasons from a lot of patients as to why they had not addressed their hearing difficulties sooner.

And of course, I always explain to them that ignoring a hearing difficulty won't make it go away, and that there are consequences for not treating a hearing loss.

Now there is even more evidence – gleaned from scientific studies by some of the top researchers in the world – to support what audiologists like myself and many of my colleagues with AudigyGroup have been saying all along: don't wait to get tested and – if the tests do indeed show a hearing loss – discuss treatment options with your hearing care professional.

These studies clearly show that hearing loss doesn't just affect one's ability to hear the TV or communicate with a spouse, friends, or co-workers. There can be serious implications for brain atrophy and cognitive function.

## **Study Results Released at Audiology Conference**

A number of these studies were presented and discussed at the American Academy of Audiology's “Audiology NOW! 2012” annual international conference which was held March 28 thru March 31 in Boston, Massachusetts. I attended this conference and took in several of these workshops, notably one titled “Issues in Cognition, Audition, and Amplification: A Panel Discussion”.

This extremely informative workshop was presented by a panel comprised of six highly respected researchers from the USA, Canada, and northern Europe.

The presenters and their topics were:

- Larry E. Hulmes, Ph.D., Indiana University “Higher Level Processing Abilities”
- Ulrike Lemke, Ph.D., Senior Researcher, Phonak International, Zurich, Switzerland “The Cognitive Part of Successful Speech Recognition”

- Brent Edwards, Ph.D., Starkey Research Laboratories, Eden Prairie, MN “How Hearing Aid Technology Can Affect Cognitive Function”
- Kathy Pichora-Fuller, Ph.D., University of Toronto, Canada “Can Hearing Aids Accelerate Listening and Speech Understanding?”
- Thomas Lunner, Ph.D., Eriksholm Research Center, Oticon International, Denmark, and Department of Behavioral Sciences and Learning, Linköping, Sweden “Memory Systems in Relation to Hearing Aid Use”
- Frank Lin, M.D., Ph.D., Johns Hopkins Medical Institutions, Baltimore, MD “Hearing Loss and Dementia”

Collectively these presenters showed how brain function and hearing loss are intertwined and that when left untreated hearing loss clearly affects cognitive function. Of special interest were findings on how the use of hearing aid technology could produce marked improvements in those who had had cognitive decline caused by untreated hearing loss, much the same as physical therapy can be used to restore deteriorated muscle mass.

### **University Study Links Brain Atrophy with Hearing Loss**

A recent study by researchers at the Perelman School of Medicine at the University of Pennsylvania – the results of which were released in August of last year – show that declines in hearing ability may accelerate gray matter atrophy in auditory areas of the brain. This shrinkage of the brain in areas important for hearing comprehension can cause an increase in the effort needed by the affected person to successfully comprehend speech. This need for increased effort can be particularly troublesome for older adults as the amount of energy used for “hearing” can impact other areas in the affected person's daily life.

The study found that people with hearing loss showed less brain activity on functional MRI scans when listening to complex sentences. Poorer hearers also had less gray matter in the auditory cortex, suggesting that areas of the brain related to auditory processing may show accelerated atrophy when hearing ability declines. In general, the study showed that loss of hearing sensitivity “has cascading consequences for the neural processes supporting both perception and cognition.”

“As hearing ability declines with age, interventions such as hearing aids should be considered not only to improve hearing but to preserve the brain,” said lead author Jonathan Peelle, Ph. D., research associate in the Department of Neurology. The research for this study can be found in *The Journal of Neuroscience* and was funded by

the National Institutes of Health.

**May is National Better Hearing Month!**

**Learn More About These Studies and other Topics at My Upcoming Seminar**

The Month of May is “National Better Hearing Month”, and once again I will be offering my free annual Educational Luncheon Seminar. This seminar is a comprehensive presentation covering a variety of hearing health care topics such as understanding how our hearing system works, enhancing communication and listening skills, advancements in hearing aid technology, and what to look for in a hearing care professional.

The seminar will be on May 2, 2012 at the Chico Women's Club, from 11:30 am til 1:00 pm. A complementary catered lunch will be served. There is no cost or obligation for attending, but due to limited seating reservations are required. To reserve your space, call my office toll free at 1 (888) 844-7024 ... because hearing is a wonderful gift!

**About the writer:** Crystal Chalmers, Au.D., is an AudigyCertified™ Doctor of Audiology, the owner of North State Audiological Services in Chico, and a member of AudigyGroup, the nation’s largest member-owned association of independent hearing care professionals.

Since 2006, AudigyGroup has interviewed over 5,000 of the 18,000 audiologists in the United States, yet has selected only 250 to be members in this elite association. Dr. Chalmers is the only AudigyGroup professional in the entire northeastern part of California. AudigyCertified™ is a trade-mark of AudigyGroup, LLC.

To learn more about Dr. Chalmers, her practice, and AudigyGroup visit online at [www.nsaudiology.com](http://www.nsaudiology.com) or call toll free at 1(888) 844-7024