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MARCON Messenger

○ VOLUME XI | ○ SPRING ISSUE | ○ 2010

Noise-Induced Hearing Loss Greater for Men


Noise-induced hearing loss is nearly three times as likely to occur in men than women.

A comprehensive study of the prevalence and risk factors for noise-induced hearing loss (NIHL) show that men, especially those who are white and married, are significantly more at risk than women, according to new research presented at the 2009 American Academy of Otolaryngology-Head and Neck Surgery Foundation (AAO-HNSF) Annual Meeting & OTO EXPO.

The collaborative study, involving Hamid Djalilian, MD, of the University of California, Irvine, Medical Center, which analyzed the audiometric testing data from 5,290 people between the ages of 20 and 69 years indicates that more than 13% suffer from NIHL, which would correspond with approximately 24 million Americans suffering from the ailment. The strongest association was of gender, where men are 2.5 times more likely to develop NIHL than women. Among that group, married white (non-Hispanic) men represent the highest risk group for developing NIHL.

NIHL is a preventable and increasingly prevalent disorder that results from exposure to high-intensity sound, especially over a long period of time.



The authors believe this is the first study of its kind to delve in to the demographics of NIHL using the most recent figures from 1999-2004 National Health and Nutrition Examination Surveys (NHANES). They believe this information can allow greater education, preventative, and screening efforts. 

Reduced Hearing Loss with Folates, not Antioxidants

Increased intakes of antioxidant vitamins have no bearing on whether or not a man will develop hearing loss, but higher folate intake can decrease his risk by 20%, according to new research presented at the 2009 American Academy of Otolaryngology-Head and Neck Surgery Foundation (AAO-HNSF) Annual Meeting & OTO EXPO.

The study, titled "Vitamin Intake and Risk of Hearing Loss in Men," which identified 3,559 cases of men with hearing loss, found that there was no beneficial association with increased intakes of antioxidant vitamins such as C, E, and beta carotene. However, the authors found that men over the age of 60 who have a high intake of foods and supplements high in folates have a 20% decrease in risk of developing hearing loss.

High-folate foods include leafy vegetables such as spinach, asparagus, turnip greens, lettuces, dried or fresh beans and peas, fortified cereal products, sunflower seeds, and certain other fruits and vegetables are

Genetic Cause of Age-Related Hearing Loss Identified

Researchers at the Translational Genomics Research Institute (TGen), working with scientists from Los Angeles and Belgium, have reported identifying a gene that puts people at risk to lose their hearing as they age.

In a study released online in the journal Human Molecular Genetics, TGen scientists say they have identified a gene that could help lead to the treatment of presbycusis, or age-related hearing loss, which accounts for 30%. Research at TGen, a nonprofit organization, is focused on helping patients with diseases such as cancer, neurological disorders, and diabetes.

"Finding the genetic causes of age-related hearing loss could lead to treatments that would bring relief to millions of people worldwide who now suffer from social isolation, depression, and even cognitive impairment as a result of not being able to properly understand what others are saying," said Matthew Huentelman, PhD, an investigator in TGen's Neurogenomics Division and one of the scientific paper's lead authors.

Researchers at TGen, Los Angeles-based House Ear Institute (HEI), and the University of Antwerp, Belgium, said they believe the paper's findings represent important and significant progress in the efforts to discover the origins of presbycusis.

"This is the first ever and largest genome-wide association study for age-related hearing loss," said Rick Friedman, MD, PhD, another lead author who also is a principal

rich sources of folate. Baker's yeast, liver, and liver products also contain high amounts of folate.

Study authors Josef Shargorodsky, MD, Gary Curhan, MD, Sharon Curhan, MD, and Ronald Eavey, MD say this is the largest study to delve prospectively into the relation between dietary intake and

investigator at the HEI and surgeon at the House Clinic.

The study uncovered several genes, but one gene stands out and is believed to put people at risk for hearing loss as they age. The research team believes a common variant in the GRM7 gene may be associated with susceptibility to glutamate excitotoxicity and hearing loss. It is the overexpression of glutamate that causes damage to the inner and outer hair cells in the inner ear leading to age-related hearing loss.

"We have known for a long time that genes play an important role in presbycusis. But until now, genetic research has lagged behind compared to other important diseases," said Guy Van Camp, director of the Hereditary Deafness Laboratory and professor at the University of Antwerp. "The identification of GRM7 is a very exciting result, as it may provide insights in the development of the disease," he said.

Study participants were Caucasian, ages 53 to 67, and the samples were collected at eight centers in six nations throughout Europe from population registries or audiological consultations. The team of investigators analyzed the samples and identified genetic risks. In the lab, the research team scored markers across the entire genome of more than 2,000 samples.

Friedman said the next step is developing a laboratory model to test pharmaceuticals for possible treatment of presbycusis in the future.

hearing loss. They used the most recent figures from the Health Professionals Follow-up Study cohort from years 1986 to 2004, a group consisting of 51,529 male health professionals. They were first enrolled into this study in 1986 and filled out detailed health and diet questionnaires every other year.



One vs. Two Hearing Aids

Do I really need to start with two hearing aids or would one for my worse ear be adequate?

If two hearing aids have been recommended to you by your hearing professional why settle for just one?

There is ample research to support that people with hearing loss are more successful with hearing aids when two hearing aids are worn versus just one, as well as demonstrating some major disadvantages when only one hearing aid is worn.

Just as our brain is wired to receive visual input through two eyes to enhance our vision, same is true for our hearing. Our brain processes sound from both ears to allow an enhanced listening experience and when the brain only receives input from one ear, enhanced hearing abilities are lost.

Some benefits of wearing two hearing aids include:

- Better localization – the ability to tell where sounds are coming from
- Better hearing in background noise
- Better sound quality ("mono" versus "stereo")
- Better hearing for soft sounds such as children's voices and sounds of nature
- Less strain on you while listening - with only one hearing aid you may often strain to hear various sounds and become fatigued, with two hearing aids listening is more relaxed
- Listening balance – you won't be turning your "good" ear to hear.
- Higher success and satisfaction - studies indicate people who wear two hearing aids are much more satisfied with their hearing aids.



People often think getting used to hearing aids will be easier if you wear only one hearing aid. As you can see it will actually be more difficult and your hearing will not improve as much as it would with two hearing aids.

Follow the advice of your hearing professional and purchase two hearing aids. That extra investment will pay off.



Treating Hearing Loss Important for Alzheimer's and Dementia

Research shows that there is a correlation between hearing loss and certain medical ailments such as diabetes and cardiovascular diseases, among others. But there is also compelling evidence to suggest a link between a hearing loss, dementia and Alzheimer's, both which are degenerative diseases that lead to progressive memory loss in the elderly.

In fact, multiple research studies have shown that hearing loss not only exacerbates the symptoms of Alzheimer's and dementia, but may also be an important risk factor.

Many symptoms of hearing loss – especially those related to difficulty in understanding and communicating – are similar to some of those found in Alzheimer's. For example, both Alzheimer's and hearing loss are known to affect speech and language skills. Depression is also a common feature of both conditions.