



Hearing Study Update

Thank You! Thank You! Thank You!

Last fall, the 4th examination phase of the Epidemiology of Hearing Loss study (EHLS) was completed. We wish to thank the 1,857 people who participated in this exam phase. Around 80% of those eligible took part, and once again, Beaver Dam has set the standard for research studies. University of Wisconsin researchers have a wealth of information to evaluate from this and previous exam phases. The ability to look at changes in health over time is one of the key assets of this study. Data from the most recent exam will enable us to further explore the relationship between cardiovascular factors and hearing loss. We will continue to investigate generational differences in the onset of hearing loss by combining data from this study and from the Beaver Dam Offspring Study. It has been our pleasure to work with the people of Beaver Dam. Our success is the result of your continued support.

1857 people participated in the most recent study

Participants were aged 63 to 100+ years old

Results from the Hearing Study were presented at 6 national and international scientific meetings this year

Older and Wiser



Living better longer – it's a goal we all share. As the hearing study enters its 18th year many of our participants are entering their 80's, 90's and even 100's. Beaver Dam Studies' researchers are continuing to study sensory impairments and aging. It's not always clear why some people age well and others don't, so when one of our hearing study participants turned 100, we took the opportunity to talk with her. She said that she didn't feel much older. "It's like any other birthday," she quipped. Our centenarian attributed her well-being to healthy habits and having a good attitude. What kind of attitude? She said that she took pride in her work and added that as a young widow, she had to "get out and shovel for myself."

Beaver Dam Hearing Study's Principal Investigator Dr. Karen Cruickshanks was not surprised to hear of our participant's journey from one century to the next. "People are living longer and our data from Beaver Dam show that people are staying healthier longer," she commented, "I think there will be more people like her." Data do indeed show that about 28% of our EHLS study population born before 1925 are still living, and that most were able to participate in the recent examination phase.

Study researcher Dr. Mary Fischer's work shows that individuals who have both hearing and vision loss have lower quality of life measures than those who do not. Also, Dr. Fischer noted that people with a mild hearing loss exhibited a higher rate of retirement during a 10 year follow-up period than those without a hearing loss. These results underscore the importance of sensory health to quality of life as people age. Many of the myths commonly associated with the aging process are beginning to erode in light of results from the hearing study. Less hearing loss in more recent generations and the suggestion of preventive strategies point toward a higher quality of life for tomorrow's elders.

Purposeful life engagement may rely heavily on sensory well-being. A high quality of life requires being able to hear the rhyme and see the reason behind all that we do. What else can be done to better understand the quality of life and the people who are able to maintain it? If they live to be 100, our researchers will continue trying to find out.

Epidemiology

...is a branch of medical science that deals with the occurrence, distribution, and control of disease in a population

The ability to look at changes in health over time is one of the key assets of the Beaver Dam studies

What is that smell?

The human sense of smell enables us to identify hundreds of different odors, but EHLS researchers have found that with age this gets more difficult for some people. About 1 of every 8 participants in the study experienced a decline in their ability to identify odors over a 5 year period. Older participants were more likely than younger participants to develop smell impairment. People with a history of nasal polyps, a deviated septum and those who reported a history of heavy drinking were also more likely to develop difficulty identifying odors. People who were taking certain medications (cholesterol-lowering and corticosteroids) and those who reported exercising at least once a week were less likely to develop problems with their sense of smell. These results suggest that some impairment in the sense of smell may be preventable and that treatments for other age-related diseases, such as cardiovascular disease, may be beneficial for smell impairment as well. These results were published in the journal *Laryngoscope* in the spring of 2011.

Hearing the Message of EHLS Research



Despite the reported negative impact of hearing loss on quality of life, only about 20 -25% of people affected by hearing loss use hearing aids. Work conducted by EHLS researcher Dr. Mary Fischer and published in the *American Journal of Public Health*, has identified the factors influencing hearing aid acquisition. Among approximately 700 EHLS participants with a hearing loss, close to 36% had acquired hearing aids during a 10 year follow-up period. Factors influencing hearing aid acquisition include: the severity of the hearing loss, the individual's perception of his or her hearing ability and its impact on daily activities, as well as that person's level of education. Reasons cited for not acquiring a hearing aid included the cost, inconvenience, the poor experience of others and the perception that an aid was unnecessary. Pinpointing the factors associated with success in treating hearing loss may enable researchers and medical professionals to remove barriers affecting the acquisition of hearing aids.



Keeping an Eye on your Children - News from the BOSS

By the time EHLS had concluded, the 5-year examinations for the Beaver Dam Offspring Study, called BOSS2, were well under way. Exams, which started in June 2010, are expected to continue through December 2012. Your children are on the way to making the BOSS as successful as the EHLS. So far, over 1100 BOSS2 participants have come in for their exams. While many of the BOSS2 participants live in Beaver Dam or surrounding communities, we also have many participants from other states. We appreciate that many of our participants from afar are giving up a little of their time with family and friends to come in for their exam during their visits to Beaver Dam.

Like the first BOSS, the BOSS2 will assess participants' vision, hearing, sense of smell and memory. As in the past, a vascular exam which includes a carotid artery ultrasound is included. Anyone who was eligible for the original BOSS study is also eligible to participate in the follow up study. Findings from the first BOSS revealed that there is less hearing loss among baby boomers than what has been experienced by prior generations. New findings from this study will help researchers and medical professionals to understand and possibly minimize or delay the sensory impairments typically associated with aging.



For more information:

800-253-0986

920-885-6823

608-890-0332

boss@episense.wisc.edu

Epidemiology of Hearing Loss Study
University of Wisconsin
School of Medicine & Public Health
610 Walnut Street, 10th Floor
Madison, WI 53726-2336