



Hearing Loss

VA researchers, engineers, and clinicians are studying ways to prevent, diagnose, and treat hearing loss, addressing a wide range of technological, medical, rehabilitative, and social issues. One group of VA researchers is working to develop and implement a new diagnostic test for tinnitus, a potentially debilitating condition that commonly accompanies hearing loss and involves ringing, whistling, or other noises in the ears.

Examples of VA Research Advances

VA partners with Army on study of blast effects – VA’s National Center for Rehabilitative Auditory Research (NCRAR) is collaborating with Walter Reed Army Medical Center to study central auditory processing—how the brain interprets incoming sounds—in soldiers who have been exposed to blasts. In addition to auditory tests, the researchers will analyze medical records, details of the blast exposure, scores on overall tests of brain function, posttraumatic stress disorder measures, and other health data.

Detection of noise-induced hearing loss – VA researchers are developing new, more sensitive methods to detect changes in the cochlea that occur before the onset of permanent noise-induced hearing loss. The methods are designed to identify problems that would not show up in standard audiometric tests. Early detection may provide the opportunity for military healthcare providers to implement precautionary procedures more effectively, preventing hearing loss among troops exposed to high levels of noise.

Treating tinnitus – A study at four VA audiology clinics has been comparing different tinnitus treatments. The treatments all feature some variation of sound therapy and educational counseling. One treatment, for example, involves special hearing aids that generate low-level white noise, which appears to help the condition. In related work, Dr. Jim Henry at the NCRAR is leading an effort to develop a stepwise approach to assessing and treating tinnitus. The method involves five levels of care, starting with appropriate referrals from primary care doctors and specialists, followed by audiologic evaluations that carefully distinguish between problems due to tinnitus and those stemming from hearing loss.

Facts About Hearing Loss

Hearing loss affects some 28 million Americans, including more than half of those over age 65. The most common cause of hearing loss is exposure to harmful levels of noise, either in military or civilian environments. Other possible causes are allergies, infections, drugs, genetics, or simply aging. Some hearing loss can be reversed through surgery or medication. In other cases, hearing loss is permanent but can be helped through the use of hearing aids. Noise-induced hearing loss is among the most common disabilities affecting Veterans. VA pays more than \$1.2 billion annually in compensation costs for hearing loss and tinnitus.

