



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 researchers at the National Center for Rehabilitative Auditory Research (NCRAR) are collaborating with audiologists at Walter Reed Army Medical Center to study central auditory processing—how the brain interprets incoming sounds—in soldiers who have been exposed to blasts. Those who show symptoms of auditory processing disorders will be evaluated again within a year, either at Walter Reed or the Portland VA. In addition to auditory tests, the researchers will analyze medical records, details of the blast exposure, scores on overall tests of brain function, post-traumatic stress disorder measures, and other health data. The study will be used to determine which auditory processing disorders are more often associated with exposure to high-explosive blasts, whether there is spontaneous recovery of auditory function after blast exposure, how much recovery may be expected, and how rapidly it occurs.
- **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 health care providers to implement precautionary procedures more effectively, preventing hearing loss among troops exposed to high levels of noise.
- **NCRAR hosting training program**—The National Center for Rehabilitative Auditory Research in Portland, VA's premier center for auditory research, was one of three sites selected nationwide by the National Institute of Deafness and Communication Disorders to host a training program for doctoral students.

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—a condition that often accompanies hearing loss and involves ringing, whistling, or other noises in the ears.

