

HEAR AROUND EUROPE

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ARMY HEARING PROGRAM—EUROPE

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MilBook Pages

Hearing Technician:

<https://www.milsuite.mil/book/groups/army-hearing-program-europe-hearing-conservation-technician-guide>

Hearing Program Officer:

<https://www.milsuite.mil/book/groups/europe-regional-army-hearing-program>

Have an idea for our next issue or want to be featured in the technician spotlight? Email all submissions to MAJ Victoria Martin (contact info above)

Hidden Hearing Loss

Recent research has discovered “hidden hearing loss (HHL),” which is a type of hearing impairment that occurs even when standard hearing tests show normal results. It typically involves damage to the auditory nerve fibers responsible for transmitting sound signals to the brain, rather than damage to the hair cells in the inner ear (which are measured in traditional tests). This condition often makes it difficult to understand speech in noisy environments, even though basic hearing thresholds appear normal.

Hidden hearing loss (HHL) is a significant concern for Soldiers due to their frequent exposure to intense noise levels during combat, training exercises, and garrison based activities (motor pools, generators, shops/tools).

Key Features of HHL:

- Normal Audiogram Results: Individuals have no detectable hearing loss in quiet settings during standard hearing tests.
- Difficulty in Noisy Environments: People struggle to follow conversations or recognize speech in the presence of background noise.

Diagnosis and Management

Since hidden hearing loss doesn't show up in standard tests, it may be diagnosed using:

- Electrophysiological tests: Assess how sound signals travel along the auditory pathway.
- Advanced hearing tests: Focus on speech-in-noise comprehension and other specific auditory skills.

Treatment

Because the discovery of hidden hearing loss is relatively new and research is still ongoing, treatment options are limited.

- Hearing aids: In some cases, advanced hearing aids or assistive devices can help improve speech comprehension in noisy settings.
- Auditory training: Techniques to improve the brain's ability to process sounds effectively.

HHL is an important consideration for our Soldiers. Difficulty understanding speech in noisy environments can lead to miscommunication, jeopardizing missions and safety. The best prevention is consistent use of well fitting hearing protection that is inserted correctly.

Hearing Loss and Cognitive Decline

Hearing loss is often seen as a natural part of aging or noise exposure, but its impact extends far beyond the ears. Research increasingly shows a strong connection between hearing loss and cognitive decline, including conditions like dementia.

How Hearing Loss Affects the Brain

Hearing loss places extra strain on the brain. When you struggle to hear, your brain has to work harder to process sounds and fill in gaps in communication. This effort can divert resources away from other cognitive functions, like memory and thinking. Over time, this “cognitive overload” may contribute to a decline in brain function. Additionally, reduced auditory input can lead to brain atrophy, particularly in areas responsible for processing sound and speech. Hearing loss often leads to social withdrawal. Difficulty

understanding conversations in noisy environments can make social interactions frustrating and lead people to avoid them altogether. This isolation is a known risk factor for cognitive decline, as regular social engagement helps keep the brain active and healthy.

Prevention and Mitigation

The good news is that addressing hearing loss may reduce the risk of cognitive decline.

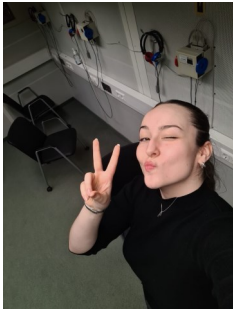
Early Intervention: Regular hearing tests can detect hearing loss early, allowing for timely action.

Hearing Aids: Studies suggest that using hearing aids can slow cognitive decline by improving communication and reducing brain strain.

Social Engagement: Staying socially active can protect both hearing and cognitive health.

Hearing Technician Spotlight

Ms. Jaymie Bulley-Nitsch



Ms. Bulley-Nitsch serves as the lead hearing health technician for the Landstuhl Regional Medical Center (LRMC) footprint. She has lived in the U.S., Italy and Germany and is fluent in German. She is also a medic (68W) in the Army Reserves. As a Soldier, she understands the importance of hearing and its contribution to the survivability and lethality of our troops. She excels at providing hearing education, and you can find her using these skills when running the hearing booth, at 68W sustainment classes, Range Safety Officer trainings, and Hearing Program Officer courses.

Hometown: Heidelberg, Germany

Favorite Sound: Crack of a baseball bat or turning on a Gameboy

Army Hearing Program in Action!



Above: MAJ Marisa Ragonesi recently held her promotion ceremony to MAJ at Grafenwöhr Parade Field, Germany.

Right: Public Health Command Europe had a great turnout at the December 2024 DoD Hearing Technician course held at Landstuhl, Germany.



Hearing Conservation Questions Answered

Q: Why do Soldiers need to complete a hearing test every year?

A: The “easy” answer is regulation. DoDI 6055.12 states that all hazardous noise exposed DOD personnel must be enrolled in a hearing conservation (HCON) program and DA PAM 40-501 specifically states all Soldiers must be enrolled in the HCON program. A requirement of the HCON program is annual hearing monitoring exam.

The “best” answer is actually two-fold. First, hearing monitoring exams allow us to detect early signs of hearing loss by comparing their current hearing results to the results of their baseline. By catching changes early on, we are able to educate Soldiers, fit them with hearing protection, and motivate them to stop the change from progressing. Second, these hearing tests help us track hearing health and fitness for duty. With significant hearing loss, Soldiers become a safety risk to themselves and others around them. Because they are no longer able to communicate effectively due to the severity of their hearing loss, they may not be able to execute the duties and responsibilities of their job and mission. These routine hearing tests identify Soldiers with hearing loss so that appropriate referrals can be made to the Audiologist. The Audiologist, through their more in-depth test battery, can make fitness for duty determinations and also identify medical issues that need further evaluation or treatment by other medical professionals.

