



Assessing the Association between Hearing Loss and Dementia among Construction Workers

Is Work-Related Hearing Loss Associated With Dementia? Evidence From a High-Risk Population [\[Open Access\]](#)

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Overview

A growing body of research has found an association between hearing loss and dementia. Construction workers are disproportionately exposed to high levels of occupational noise and organic solvents, both of which can induce hearing loss. The Building Trades National Medical Screening Program (BTMed), managed by CPWR, provides health examinations for workers who formerly did construction at U.S. Department of Energy (DOE) nuclear weapons facilities. BTMed participants receive an initial screening exam and can return for a re-exam every three years, with an audiometry (hearing) test included only in the initial exam unless the participant requests another. This study focused on 24,958 BTMed participants who had audiometry data, with 56% showing hearing loss, defined as an average of at least 20 decibels loss in the better ear. The study looked for signs of dementia among the participants, making it one of the first studies to examine whether work-related hearing loss is associated with dementia.

Key Findings

- Construction workers with hearing loss were more likely to have dementia, and the strength of this association increased with greater severity of hearing loss.
- Hearing loss showed a borderline statistically significant association with new cases of dementia that developed during the study period.
- It is important to prevent hearing loss through the use of hearing protection at work and at home, especially when in noisy areas or operating equipment that produces excessive noise exposures.
- While this study was not large enough to determine whether hearing aids protect against developing dementia, evidence from non-occupational research shows that hearing aid use can reduce dementia risk. Expanding hearing aid coverage through health insurance and workers' compensation would improve access, support communication and quality of life, and may help prevent future dementia-related healthcare costs.
- Workers' compensation should cover claims for subsequent dementia associated with accepted hearing loss claims.

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Read the article:

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