

## Years in construction workforce, noise, solvents and smoking linked to hearing loss

### Hearing loss among older construction workers: Updated analyses

*John Dement, Laura S. Welch, Knut Ringen, Kim Cranford, and Patricia Quinn. American Journal of Industrial Medicine, April 2018.*

#### Overview

Researchers reviewed audiometric data for 19,127 participants in the Building Trades Medical Screening Program (BTMed) for construction workers formerly employed at DOE nuclear energy sites. Using work history interview data, the team developed exposure metrics for noise and solvents, then tested associations between hearing loss, noise and solvent exposure, and other demographic and risk factors.

#### Key Findings

- Fifty-eight percent (58%) of the study population experienced hearing loss.
- Duration of construction trade work was strongly predictive of hearing loss: workers with more than 30 years in the trade were nearly four times more likely to experience hearing loss than those with less than 10 years.
- Workers who reported workplace exposure to loud or very loud noise 90% of the time were 20% more likely to experience hearing loss than those reporting it less than 50% of the time.
- Workers in the highest quartile of organic solvent exposure were 15% more likely to experience hearing loss than those in the lowest quartile.
- Smokers were 18% more likely to experience hearing loss than nonsmokers.

#### For more information, contact:

John Dement: [john.dement@duke.edu](mailto:john.dement@duke.edu)

#### See abstract:

<http://bit.ly/2JXXpIK>

©2018, CPWR-The Center for Construction Research and Training. All rights reserved. CPWR is the research and training arm of NABTU. Production of this document was supported by cooperative agreement OH 009762 from the National Institute for Occupational Safety and Health (NIOSH) and U.S. Department of Energy contract DE-FC01-06-EH06004. The contents are solely the responsibility of the authors and do not necessarily represent the official views of NIOSH or DOE.



THE CENTER FOR CONSTRUCTION  
RESEARCH AND TRAINING

[WWW.CPWR.COM](http://WWW.CPWR.COM)