

Update: Accident Risk and Noise



It is estimated that over 3 million American workers are injured on the job each year, resulting in incalculable human toll and billions in direct and indirect cost to the nation. Growing evidence suggests there may be a link between noise, hearing loss, and risk of occupational injury.

Many factors influence risk of accidents, including workplace conditions, PPE/safety equipment, and employee factors such as health and training. A collaborative team of researchers from Yale, Stanford, U. Michigan, and U. Washington have teamed up with industry to investigate the potential influence of workplace noise. The research group recently completed a large-scale analysis of records for approximately 9,000 manufacturing workers over a 6-year period. Among this group of workers, the researchers found that higher noise exposures were associated with higher risk of injuries, especially serious injuries. In addition, hearing impairment was linked to higher accident rates, particularly for those employees with a combination of high frequency hearing loss and tinnitus (ringing in the ears).

For more information and helpful resources for your hearing conservation program, see:

[CavCom SoundBytes](#). Does Noise Increase the Risk of Accidents?

[CavCom SoundBytes](#). Special Considerations for Workers with Hearing Loss

[Cantley LF, Galusha D, Cullen MR, Dixon-Ernst C, Tessier-Sherman B, Slade MD, Rabinowitz PM, Neitzel RL. 2015.](#) Does tinnitus, hearing asymmetry, or hearing loss predispose to occupational injury risk? *International Journal of Audiology*, 54 Suppl 1: S30-6.

[Cantley LF, Galusha D, Cullen MR, Dixon-Ernst C, Rabinowitz PM, Neitzel RL. 2015.](#) Association between ambient noise exposure, hearing acuity, and risk of acute occupational injury. *Scandinavian Journal of Work & Environmental Health*, 41(1): 75-83.

[NIOSH Topic Page: Traumatic Occupational Injury](#).