

# Trouble hearing? It could increase your risk of an injury

March 22 2018

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Accidental injuries are among the leading causes of morbidity and mortality in the United States. The Centers for Disease Control and Prevention estimated that unintentional injuries accounted for 5 percent of all deaths in 2011 and 28 million emergency room visits in 2013. While many factors can contribute to accidental injuries, the relationship between them and certain sensory impairments, such as hearing loss, are noteworthy. Additionally, the near-universal availability of screening and treatment options for hearing loss would classify it as a preventable risk factor for accidental injuries.

A new study by investigators at Brigham and Women's Hospital reveals an increased rate of accidental injuries are associated with self-reported, poorer hearing adults, with leisure-related injuries being most notable among those respondents. Those with "good" or "a little trouble" hearing were at a higher risk of work-related injuries. The findings were published today in *JAMA Otolaryngology*.

"Many adults believe that hearing loss, particularly due to aging, is 'normal' and therefore of little consequence other than, perhaps, social difficulties. We were motivated to create this study since hearing is a special sense that plays an important role in warning us of danger in our surroundings. We wanted to see if a poorer hearing ability was related to accidental injuries," said Neil Bhattacharyya, MD, senior author of the paper and otolaryngologist at Brigham and Women's Hospital.

The researchers used the National Health Interview Survey dataset as

their data source, which included responses to various health related questions from a nationally representative sample of individuals from across the United States that were 18 and older. Hearing status was classified as "excellent," "good," "a little trouble hearing," "moderate trouble hearing," "a lot of trouble hearing," and "deaf." The main outcome variable was the occurrence of any accidental injuries within the last three months. The type of injury was further classified as driving-related, work-related, or leisure/sport-related. The prevalence of [accidental injuries](#) was calculated and analyzed based on the participants' age, sex, marital status, education level, ethnicity, race, and hearing status. The adjusted odds ratios were calculated for injuries based on the different degrees of hearing difficulty adjusting for the above demographic variables.

Accidental injuries were reported by 6.6 million of the respondents from the preceding three months. One out of six of those respondents considered their hearing to be less than "excellent" or "good." People who had a lot of trouble hearing were 1.9 times more likely (twice as likely) to suffer from some type of injury than those with excellent hearing.

The study concludes that an increased rate of accidental injury was strongly associated with self-reported poorer hearing quality in adults, with leisure-related injuries most consistently associated with a degree of self-perceived hearing difficulty.

"Our data suggests a strong relationship between poorer hearing and accidental injury, especially since the rate of injury increased steadily as the reported [hearing](#) worsened as well as the odds ratio for injury. We found that leisure-related injuries were particularly interesting since individuals may not consider that a high-risk occasion for [injury](#) and may be paying even less attention to their [hearing difficulties](#). Ultimately, [hearing loss](#) may be more consequential than one might

think," said Bhattacharya.

**More information:** Hossein Mahboubi et al, Prevalence, Characteristics, and Treatment Patterns of Hearing Difficulty in the United States, *JAMA Otolaryngology–Head & Neck Surgery* (2017). DOI: [10.1001/jamaoto.2017.2223](https://doi.org/10.1001/jamaoto.2017.2223)

Provided by Brigham and Women's Hospital

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