

Iron Deficiency Anemia and Hearing Loss

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In a study on anemia and hearing loss, published online by *JAMA Otolaryngology-Head & Neck Surgery*, Kathleen M. Schieffer, B.S., of the Pennsylvania State University College of Medicine, Hershey, Pa., and colleagues examined the association between sensorineural hearing loss and conductive hearing loss and iron deficiency anemia in adults ages 21-to-90 years in the United States.

Because iron deficiency anemia (IDA) is a common and easily correctable condition, further understanding of the association between IDA and all types of hearing loss may help to open new possibilities for early identification and appropriate treatment. For this study, using data obtained from deidentified electronic medical records from the Penn State Milton S. Hershey Medical Center in Hershey, Pa., iron deficiency anemia was determined by low hemoglobin and ferritin levels for age and sex in 305,339 adults ages 21 to 90 years; associations between hearing loss and IDA were evaluated.

Study Results on Anemia and Hearing Loss

Of the patients in the study population, 43 percent were men; average age was 50 years.

- There was a 1.6 percent prevalence of combined hearing loss (defined as any combination of conductive hearing loss [hearing loss due to problems with the bones of the middle ear], sensorineural hearing loss, deafness, and unspecified hearing loss) and 0.7 percent prevalence of IDA.
- Both sensorineural hearing loss (SNHL; when there is damage to the cochlea or to the nerve pathways from the inner ear to the brain) (present in 1.1 percent of individuals with IDA) and combined hearing loss (present in 3.4 percent) were significantly associated with IDA.
- Analysis confirmed increased odds of SNHL and combined hearing loss among adults with IDA.

“An association exists between IDA in adults and hearing loss. The next steps are to better understand this correlation and whether promptly diagnosing and treating IDA may positively affect the overall health status of adults with hearing loss,” the authors write.

Conclusion/Hearing loss in the US adult population is linked to hospitalization, poorer self-reported health, hypertension, diabetes, and tobacco use. Because iron deficiency anemia and hearing loss is a common and easily correctable condition, further understanding of the association between IDA and all types of hearing loss in a population of US adults may help to open new possibilities for early identification and appropriate treatment.

Source: Schieffer KM, Chuang CH, Connor J, Pawelczyk JA, Sekhar DL. Association of Iron Deficiency Anemia With Hearing Loss in US Adults. *JAMA Otolaryngol Head Neck Surg.* 2017;143(4):350–354. doi:10.1001/jamaoto.2016.3631