

Age-related hearing loss and folate in the elderly

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Age-related hearing loss (ARHL), one of the four most prevalent chronic conditions in the elderly, is associated with low serum levels of folic acid, according to new research published in the December 2010 issue of *Otolaryngology – Head and Neck Surgery*.

Hearing loss is a major public health problem globally, with more than 28 million Americans between the ages of 60 and 74 dealing with the loss. Despite the high prevalence of hearing impairment, the biological basis of age-related hearing loss is unknown. In the current study, findings show that low [serum levels](#) of folic acid among elderly people are significantly associated with hearing loss in high frequencies.

"Based on our research, age-related hearing loss may be associated with poor micronutrient status. The role of folate in cellular metabolism, the nervous system, and vascular function are important for the auditory system," said study author Akeem Olawale Lasisi, MBChB, FWACS, FMCORL.

The study included face-to-face interviews with 126 elderly Nigerian men and women above 60 years old who had no known medical conditions and had been examined by physicians. The study excluded those who were found to have a history of diabetes, stroke, hypertension, ear diseases, ear infections, ear trauma, ear surgery, or exposure to noise and ototoxic drugs such as aminoglycosides, antibiotics, and diuretics.

The main finding of the study was that low serum levels of folic acid

were significantly associated with high-frequency [hearing loss](#) in the elderly. In medically underserved populations like that in the study, relatively low levels of vitamin intake can be expected. That suggests a need, say the authors, for continuing study into the role of vitamins in auditory function, particularly in developing countries where malnutrition is rife.

Provided by American Academy of Otolaryngology -- Head and Neck Surgery

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