

## NUTRITION

# Vitamin A prevents hearing loss

High-dose supplementation of vitamin A in Nepalese preschool children with a history of ear infections reduces the risk of hearing loss later in life.

“The level of hearing loss averted by vitamin A supplementation was shown to be sufficiently severe to compromise activities of daily living in a typical rural South Asian setting,” points out Keith P. West Jr, one of the study investigators.

Both vitamin A deficiency and hearing loss are prevalent in Nepal, and epidemiological data suggested a link between vitamin A deficiency and ear infections in childhood. In 1989, preschool children from a rural area of Nepal were enrolled in a 16-month, cluster-randomized, placebo-controlled trial of oral vitamin A supplementation (200,000 IU every 4 months), which reduced mortality. In a follow-up study, Schmitz *et al.* now assessed whether early vitamin A supplementation reduces hearing loss, caused by childhood ear infections, in adolescents and young adults.

Hearing loss was determined by audiometry in 2,378 participants (aged 14–23 years), who represented 51% of those involved in the original trial.

Study participants with evidence of purulent ear infections in childhood who received vitamin A supplements had a 42% reduced risk of hearing loss in early adulthood compared with placebo-treated controls.

“The findings provide a framework for understanding the extent to which the public health burden of impaired hearing can be reduced through routine vitamin A prophylaxis in undernourished and clinically underserved societies,” concludes West.

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**Original article** Schmitz, J. *et al.* Vitamin A supplementation in preschool children and risk of hearing loss as adolescents and young adults in rural Nepal: randomised trial cohort follow-up study. *BMJ* 344, d7962 (2012)