

# Adequate zinc eases pneumonia in elderly

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A high proportion of nursing facility residents were found to have low serum (blood) zinc concentrations during an observational study funded by the Agricultural Research Service (ARS) and the National Institute of Aging. The scientists found that those with normal blood zinc concentrations were about 50 percent less likely to develop pneumonia than those with low concentrations.

The study was led by Simin Nikbin Meydani, director of the Nutritional Immunology Laboratory at the Jean Mayer USDA Human Nutrition Research Center on Aging (HNRCA) at Tufts University in Boston, Mass. ARS is the chief intramural scientific research agency of USDA.

HNRCA researchers have been studying immune response and respiratory infections in about 600 elderly residents in 33 nursing facilities in the Boston area. Meydani and colleagues previously reported that among the facility residents, those who consumed 200 international units (IU) of vitamin E daily for one year were 20 percent less likely to get upper respiratory infections, such as colds, than those who took a placebo.

The secondary analysis of data from the same clinical trial showed a high proportion of the residents had low serum (blood) [zinc](#) concentrations at baseline and after one year of follow-up. All participants had been supplemented with half of the recommended dietary allowance of essential vitamins and minerals, including zinc, during the trial.

Those with normal zinc status were not only less likely to develop

pneumonia, they also had fewer new prescriptions for antibiotics, a shorter duration of pneumonia, and fewer days of antibiotic use compared with residents who had low zinc levels. In addition, mortality was lower in those with adequate blood zinc levels.

The study suggests that supplementation of zinc-deficient elderly may result in reduced risk of pneumonia. Still, the authors note that controlled clinical trials are needed to test efficacy of [zinc supplementation](#) as a low-cost intervention to reduce mortality due to [pneumonia](#) among vulnerable populations who already have low zinc levels.

These study results were published in the American Journal of Clinical Nutrition.

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