

# Nutrients Reduce Cold and Flu Symptoms in Elderly

**A** nutritional supplement containing vitamins, minerals, and structured lipids boosted immunity and reduced days of cold and flu symptoms in elderly participants in a study published in the *Journal of the American Geriatrics Society*.

To determine whether a nutritional supplement could modulate immune status, researchers recruited 66 individuals over the age of 65. Approximately half of the participants received eight ounces per day of an experimental formula containing protein, antioxidants (vitamins C and E, beta-carotene), selenium, zinc, fructo-oligosaccharides, and structured lipids. The other study participants received a control drink containing protein and minimal vitamins and minerals. Influenza (flu) vaccinations were administered to all participants approximately two weeks into the study.

Eighteen participants in the control group and 16 in the experimental group completed the 183-day study. The control group logged 156 days of upper respiratory tract infection symptoms, compared to only 78 days in the experimental group. In addition, blood tests taken on day 57 demonstrated that 87% of those

given the supplement achieved a fourfold or greater increase in antibody response to a certain component of the flu vaccine, compared to only 41% in the control group. Lymphocyte proliferation to the flu vaccine also was greater in the supplement group than in the control group.

“Advanced age is associated with increased risk of nutrient deficiency and altered regulation of the immune system. This combination is associated with increased risk of infection,” lead researcher Bobbi Langkamp-Henken, PhD, RD, of the University of Florida told *Life Extension*. “Many seniors do not get all of the nutrients that they require. By supplementing their diet with multivitamins and minerals, seniors may minimize their risk of nutrient deficiency and therefore get an immune advantage.”

— Marc Ellman, MD

**Reference**

Langkamp-Henken B, Bender BS, Gardner EM, et al. Nutritional formula enhanced immune function and reduced days of symptoms of upper respiratory tract infection in seniors. *J Am Geriatr Soc*. 2004 Jan;52(1):3-12.



**High Cysteine Linked to Lower Breast Cancer Risk**

**H**igher blood levels of the amino acid cysteine seem to predict a reduced risk of developing breast cancer, suggesting that cysteine may have a protective benefit against breast cancer, according to research of more than 30,000 women as part of the Nurses' Health Study.

Researchers found that women with the highest blood levels of cysteine had less than half the risk of developing breast cancer during the approximately six-year study period when compared to women with the lowest cysteine levels. Cysteine exerts its beneficial effects by merging with the amino acids glutamate and glycine to form glutathione, the most potent intracellular antioxidant and carcinogen-detoxifying agent.

In an interview with *Life Extension*, Dr. Shumin Zhang of Boston's Brigham and Women's Hospital and the Harvard School of Public Health, said, "In this large prospective study, women with the highest levels of blood cysteine, a key amino acid in the biosynthesis of glutathione (an antioxidant), had a 56% lower risk of developing breast cancer compared to those with the lowest levels."

"Cysteine or its precursors might have the potential to be chemoprotective against breast cancer," Dr. Zhang and colleagues wrote in the medical journal *Cancer Epidemiology, Biomarkers & Prevention*. Dr. Zhang warned, however that "this exciting new finding needs to be confirmed by other large studies."

— Marc Ellman, MD

**Reference**

Zhang SM, Willett WC, Selhub J, Manson JE, Colditz GA, Hankinson SE. A prospective study of plasma total cysteine and risk of breast cancer. *Cancer Epidemiol Biomarkers Prev*. 2003 Nov;12(11 Pt 1):1188-93.

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