

# Multivitamins and Vitamin E Supplements Associated With a 50-Percent Reduction in Colon Cancer Risk

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Colorectal cancer is the second-leading cause of cancer death in North America. Epidemiological and other evidence suggests that 70 percent to 90 percent of these cases are caused by nutrition and other lifestyle factors. A number of vitamins and minerals are known to exert anti-tumor influences upon the epithelial cell of the large bowel, and experimental and animal studies have revealed their potential to prevent, inhibit and reverse cancerous changes within the gut.

In particular, strong evidence suggests that vitamins E, D and C, folic acid, selenium and calcium produce various biological effects that help prevent the development of colorectal cancer. Some of these effects include antioxidant activity (vitamins C, E and selenium); inhibiting the formation of nitrosamines in the intestinal tract (vitamin C); slowing the rate of epithelial cell division (calcium and vitamin D); direct anti-tumor effects (selenium); enhancing cellular differentiation (vitamins E and D); reducing the concentrations of fecal mutagens (vitamins E and C); preventing DNA hypomethylation (folic acid and vitamin B12); and apoptosis - the selective induction of programmed cell death among malignant cells (vitamin E).

Building on the volume of literature that supports the role certain vitamins and minerals can play in preventing colorectal cancer, researchers from the Fred Hutchinson Cancer Research Center in Seattle conducted a case-control study involving 251 men and 193 women diagnosed with colon cancer from 1985-1989, and 233 male and 194 female control subjects from the general population. From their data, the researchers determined that daily use of multivitamins for 10 years was associated with a 50-percent reduction in the risk of developing colon cancer among men and women (age-adjusted odds ratio 0.49, 95 percent CI 0.35-0.69, as compared to no use of multivitamins). There was also strong evidence for the use of vitamin E supplementation (average daily dosage of 200 IU) for over 10 years.

Vitamin E users demonstrated a 57-percent reduction in the risk of colon cancer compared to nonusers of vitamin E supplements (odds ratio 0.43, 95 percent CI 0.26-0.71). A clear dose-dependent response trend was observed for vitamin E. Almost all vitamin D supplement users derived it from a multivitamin, which makes it difficult to determine vitamin D's independent influence on preventing colon cancer. However, research studies suggest that vitamin D is one of the more significant micronutrients linked to the prevention of colon cancer.

The researchers conclude that their study findings indicate that supplements, especially multivitamins (with minerals) and vitamin E, are associated with reduced colon cancer risk.

*Reference*

White E, Shannon JS, Patterson RE. Relationship between vitamin and calcium supplement use and colon cancer. *Cancer Epidemiology, Biomarkers & Prevention* Oct 1997;6(10):769-774.

#### Fourteen of 17 DHEA Supplements Found to Meet Label Claim

In a recent random testing of DHEA (dehydroepiandro-sterone) supplement products, Consumers Lab, of White Plains, N.Y., tested 17 different supplements and found only 14 contained the label amount of DHEA. One product had only 19 percent of the claimed DHEA, despite promoting the fact that it was "pharmaceutical quality."

These random studies continue to provide support for the contention that health practitioners should ask supplement manufacturers for documentation of postproduction testing of their products from an independent lab. These documents should clearly show the exact quantities of the bioactive agents contained within the product, to verify that the product contains the amount of active ingredients claimed on the label. It is important to hold supplement manufacturers accountable in this manner; doing so ensures that those products you are recommending or selling to your patients are of the highest quality.

DHEA is a hormone supplement used in the treatment of lupus, fibromyalgia and adrenal failure. DHEA may also be useful to help prevent or treat osteoporosis in postmenopausal women, improve sexual function in older women (over age 70) and improve erectile dysfunction in men with low DHEA levels.

#### *Reference*

*ConsumersLab.com Newsletter.* www.consumerslab.com. Dec. 11, 2002.

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Please take time to listen to Dr. Meschino's informative interviews at [www.chiroweb.com/audio/meschino](http://www.chiroweb.com/audio/meschino). The titles of the latest interviews are: "Selenium and its Influence on Cancer"; "Benefits and Clinical Application of Alternative Medicine and Acupuncture"; and "Research and Strategies Related to Eye Health."

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