VITAMIN E

VITAMIN E IMPROVES IMMUNITY IN THE ELDERLY

Vitamin E taken each day improves the immune functioning of elderly people who are neither deficient nor sick. Vitamin E reduces the levels of prostaglandin E2 (a hormone-like substance that impairs immunity) and increases interleukin 2 (one of the immune system's major weapons against invasion) (American Journal of Clinical Nutrition 1990; 52:557

MORE GOOD NEWS ABOUT VITAMIN E

Several cell-culture experiments have shown that vitamin E succinate halts the growth of cancerous cells, including breast cancer cells. This form of vitamin E seems to halt cancer cell proliferation by protecting "transforming growth factor-b" that regulates cell growth.
(Charpentier, A, Simmons-Menchaca, M. et al. "RRR-a-tocopheryl succinate enhances TGF-bl, -b2, and b3 TFG-bR-II expression by human MDA-MB-435 breast cancer cells." Nutrition & Cancer, 26:237-50,1996).

But vitamin E succinate works in other ways as well. In a recent paper, researchers from NCI reported that vitamin E succinate prompts **apoptosis** (programmed cell death) in breast cancer cells. "An advantage for using Vitamin E and/or Vitamin E derivatives in human cancer therapy is its low level of toxicity . . ."
(Turley, J.M., Fu, T., et al. "Vitamin E succinate induces Fasmediated apoptosis in estrogen receptor-negative human breast cancer cells." Cancer Research, 57:881-90, March 1, 1997.
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Of course, cell-culture studies are a long way from human trials. But Gerald Shklar, D.D.S, of the Harvard University Dental School, has taken the next step. He used a toxic chemical to induce oral cancer in hamsters, then fed them Vitamin E succinate. The Vitamin E prevented cancer growth, and its mechanism was particularly surprising. It inhibited **angiogensis** (the growth of tumor-feeding blood vessels), thus suggesting yet another way vitamin E may help treat breast cancer.

(Shklar, G., & Schwartz, J.L. "Vitamin E inhibits experimental carcinogenesis and tumour angiogenesis."Oral Oncology, European Journal of Cancer, 32B:114-19, 1996.)

Jack Chalem, Nutrition Science News, August 1997, page 391 Vol.2, Issue 8

Vitamin E is the body's premier fat-soluble antioxidant, complementing vitamin C which is the premier water-soluble antioxidant. Vitamin E is the major protective antioxidant for cell membranes, the dynamic matrices on and in which most of the body's metabolic business is transacted and most of the cell's free radical load is generated. Similarly, vitamin E provides important antioxidant protection for the serum lipoproteins, which are the transport vehicles for triglycerides, fatty acids, cholesterol and other lipids to the tissues by way of the blood. Vitamin E also is crucial to tissue homeostasis by way of its involvement in the normal regulation of prostaglandin balance. Vitamin E can become depleted from the muscles during exercise.