

The nutritional prevention of cancer: 400 mcg per day selenium treatment.

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Nonexperimental studies suggest that individuals with higher selenium (Se) status are at decreased risk of cancer. The Nutritional Prevention of Cancer (NPC) study randomized 1,312 high-risk dermatology patients to 200-mcg/day of Se in selenized yeast or a matched placebo; selenium supplementation decreased the risk of lung, colon, prostate, and total cancers but increased the risk of nonmelanoma skin cancer. In this article, we report on a small substudy in Macon, GA, which began in 1989 and randomized 424 patients to 400-mcg/day of Se or to matched placebo. The subjects from both arms had similar baseline Se levels to those treated by 200 mcg, and those treated with 400-mcg attained plasma Se levels much higher than subjects treated with 200 mcg. The 200-mcg/day Se treatment decreased total cancer incidence by a statistically significant 25%; however, 400-mcg/day of Se had no effect on total cancer incidence.