

## **Serum beta-carotene, vitamins A and E, selenium, and the risk of lung cancer.**

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We studied the relation of serum vitamin A (retinol), beta-carotene, vitamin E, and selenium to the risk of lung cancer, using serum that had been collected during a large blood-collection study performed in Washington County, Maryland, in 1974. Levels of the nutrients in serum samples from 99 persons who were subsequently found to have lung cancer (in 1975 to 1983) were compared with levels in 196 controls who were matched for age, sex, race, month of blood donation, and smoking history. A strong inverse association between serum beta-carotene and the risk of squamous-cell carcinoma of the lung was observed (relative odds, 4.30; 95 percent confidence limits, 1.38 and 13.41). Mean (+/- SD) levels of vitamin E were lower among the cases than the controls (10.5 +/- 3.2 vs. 11.9 +/- 4.90 mg per liter), when all histologic types of cancer were considered together. In addition, a linear trend in risk was found ( $P = 0.04$ ), so that persons with serum levels of vitamin E in the lowest quintile had a 2.5 times higher risk of lung cancer than persons with levels in the highest quintile. These data support an association between low levels of serum vitamin E and the risk of any type of lung cancer and between low levels of serum beta-carotene and the risk of squamous-cell carcinoma of the lung.

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**I dati supportano un'associazione tra bassi livelli di vitamina E nel siero e il rischio di qualunque forma di cancro.**

**Inoltre è stata verificata una relazione tra bassi livelli di beta-carotene nel siero e il rischio di carcinoma alle cellule squamose polmonari.**