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*In a large population-based study of Chinese women with breast cancer, multivitamin use reduced the risk of mortality and the risk of cancer recurrence.*

## SUPPLEMENTAL VITAMINS DURING BREAST CANCER TREATMENT MAY REDUCE MORTALITY RISK

**N**utritional supplement use during cancer treatment is currently controversial. Antioxidants may protect normal cells from oxidative damage that occurs during radiotherapy and certain chemotherapy regimens. However, the same mechanism could protect tumor cells and potentially reduce effectiveness of some cancer treatments. Recently, researchers evaluated vitamin supplement use during cancer treatment and in the first six months after breast cancer diagnosis, looking for correlations with total mortality and cancer recurrence.

A population-based prospective cohort study of 4,877 women diagnosed with invasive breast cancer was conducted between March of 2002 and April of 2006 in Shanghai, China. The women (aged 20-75) were interviewed approximately six months after diagnosis, then followed-up with later via in-person interviews.

During an average follow-up of 4.1 years, 444 deaths and 532 recurrences occurred. Vitamin use shortly after breast cancer diagnosis was associated with reduced risk of mortality and recurrence. Women who used nutritional supplements (vitamin E, vitamin C, multivitamins) had an 18% reduction in risk of mortality and a 22% reduced recurrence risk. The inverse association was found regardless of whether vitamin use was concurrent or non-concurrent with chemotherapy, but was only present among patients who did not receive radiotherapy.

Vitamin supplement use in the first six months after breast cancer diagnosis may be associated with reduced risk of mortality and recurrence. The results of this study do not support the current recommendation that all breast cancer patients should avoid use of vitamin supplements.

*Nechuta S, et al. Vitamin supplement use during breast cancer treatment and survival: a prospective cohort study. Cancer Epidemiol Biomarkers Prev, 21 Dec 2010. [Epub ahead of print]*