

**VITAMIN PILLS MAY
RAISE CANCER RISKS**

Multivitamin use is associated with an increased risk of breast cancer in a cohort of Swedish women, Susanna Larsson and colleagues have found. “Many people believe that taking [vitamin] supplements will reduce their risk of chronic disease, such as cancer and cardiovascular disease,” say Larsson and colleagues. The practice is widespread, with 40% of women in the USA reporting multivitamin use in 1999–2000. Several studies have reported an association between use of multivitamins and breast cancer risk, with folic acid use identified as a possible risk factor. However, there is currently no consensus regarding this association, as results from epidemiologic studies have been inconsistent.

Larsson *et al.* analyzed prospectively collected data on 35,329 initially cancer-free women from the population-based Swedish Mammography Cohort. In 1997, these women completed a questionnaire about their lifestyle, use of dietary supplements, and breast cancer risk factors. Linkage with Swedish cancer registry data revealed that 974 of these women had developed invasive breast cancer by the end of 2007.

After adjustment for breast cancer risk factors, women who used multivitamins had a 19% higher risk of breast cancer than those who did not use multivitamins. This association “did not vary appreciably by hormone-receptor status of the breast tumor,” according to the investigators.

The researchers believe that “the possibility that multivitamin use may increase the risk of breast cancer is biologically plausible.” In view of findings from other studies they speculate that synthetic folic acid use might promote cancer growth, as folic acid deficiency has been shown to reduce the incidence of breast cancer. An alternative explanation is that multivitamin use might increase breast tissue density, a known risk factor for breast cancer.

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Original article Larsson, S. C. *et al.* Multivitamin use and breast cancer incidence in a prospective cohort of Swedish women. *Am. J. Clin. Nutr.* **91**, 1268–1272 (2010)