

# Abstract

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## Multivitamin use and breast cancer incidence in a prospective cohort of Swedish women.

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**BACKGROUND:** Many women use multivitamins in the belief that these supplements will prevent chronic diseases such as cancer and cardiovascular disease. However, whether the use of multivitamins affects the risk of breast cancer is unclear.

**OBJECTIVE:** We prospectively examined the association between multivitamin use and the incidence of invasive breast cancer in the Swedish Mammography Cohort.

**DESIGN:** In 1997, 35,329 cancer-free women completed a self-administered questionnaire that solicited information on multivitamin use as well as other breast cancer risk factors. Relative risks (RRs) and 95% CIs were calculated by using Cox proportional hazard models and adjusted for breast cancer risk factors.

**RESULTS:** During a mean follow-up of 9.5 y, 974 women were diagnosed with incident breast cancer. Multivitamin use was associated with a statistically significant increased risk of breast cancer. The multivariable RR of women who reported the use of multivitamins was 1.19 (95% CI: 1.04, 1.37). The association did not differ significantly by hormone receptor status of the breast tumor.

**CONCLUSIONS:** These results suggest that multivitamin use is associated with an increased risk of breast cancer. This observed association is of concern and merits further investigation.

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