

# Abstract

Am J Epidemiol. 2011 May 15;173(10):1171-82.

## Dietary B vitamin and methionine intakes and breast cancer risk among Chinese women.

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**OBJECTIVE:** Methionine, folate, vitamin B(6), vitamin B(12), niacin, and riboflavin intakes may be related to breast carcinogenesis. These associations may vary by breast cancer type. Using the prospective cohort Shanghai Women's Health Study (1997-2008) including 718 Chinese breast cancer cases, the authors evaluated baseline dietary intake of these factors and breast cancer risk and whether the associations varied by menopausal status and estrogen receptor (ER) and progesterone receptor (PR) status.

**METHODS:** They estimated associations using hazard ratios and 95% confidence intervals from Cox proportional hazards regression models and stratified analyses by menopausal status and ER/PR status. Lowest quantile of intake was used as the comparison group.

**RESULTS:** For postmenopausal women, dietary intakes of methionine and B vitamins were not associated with breast cancer risk. For premenopausal women, higher intake of folate was associated with decreased breast cancer risk (hazard ratio = 0.58, 95% confidence interval: 0.34, 0.99 for the highest vs. lowest quintile of intake). Only niacin intake was associated with ER+/PR+ breast cancer risk (hazard ratio = 1.62, 95% confidence interval: 1.07, 2.46; P for trend = 0.04 for the highest vs. lowest quartile of intake).

**CONCLUSIONS:** Findings support the hypothesis that high folate intake may reduce breast cancer risk and that the association may vary by menopausal and ER/PR status.

PMID: 21447479