

High breast cancer incidence rates among California teachers: results from the California Teachers Study (United States)

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Abstract

Objective: To determine risk factor profiles and cancer incidence rates among participants in the California Teachers Study (CTS), a study designed to document high breast cancer incidence rates of California teachers and to investigate emergent hypotheses in the etiology of breast and other cancers. *Methods:* The CTS is a prospective study of 133,479 California female teachers and administrators, established in 1995–1996 with members of the California State Teachers Retirement System completing a detailed mailed questionnaire regarding possible risk factors for breast and other cancers. Cancer outcomes were identified by linkage with the California Cancer Registry. *Results:* CTS participants have a 51% higher age-standardized invasive breast cancer incidence rate and a 67% higher *in-situ* breast cancer incidence rate than would be expected based on race-specific statewide rates after three years of follow-up. CTS participants also have substantially elevated rates of endometrial cancer (rate ratio, RR = 1.72), ovarian cancer (RR = 1.28), melanoma (RR = 1.59), non-Hodgkin's lymphoma (RR = 1.53), and leukemia (RR = 1.28), but low rates of invasive cervix cancer (RR = 0.53) and lung cancer (RR = 0.66). *Conclusions:* CTS members have high rates of several major cancers, particularly breast cancer, and low rates of lung and cervix cancer. Although late age at first birth can explain a portion of the observed excess risk of breast cancer in this cohort, the unique risk factor profile of CTS members may account for much of their higher risk of breast and selected other cancers. The CTS offers a rich resource for future studies of cancer risk and of women's health, in general.