## A case-control study of occupation and breast-cancer risk in Connecticut.

Zheng T, Holford TR, Taylor Mayne S, Luo J, Hansen Owens P, Hoar Zahm S, Zhang B, Zhang Y, Zhang W, Jiang Y, Boyle P.

Yale University School of Medicine, Yale Cancer Center, New Haven, CT, USA.

BACKGROUND: Several occupations have recently been related to breast-cancer. The results, however, are inconsistent. We analyse data from a case-control study of breast cancer in Connecticut conducted in 1994-97 to further examine the potential relationship between occupation and breast-cancer risk. METHODS: A total of 608 breast-cancer cases and 609 controls, 31-85 years old, were included in the study. Information regarding occupation and other breast-cancer risk-factors was obtained through in-person interviews by trained interviewers, using a standardised, structured questionnaire. RESULTS: after adjustment for major breast-cancer risk-factors, a significantly increased risk of breast cancer was observed for teachers and librarians [odds ratio (OR), = 1.9, 95% confidence interval (CI) 1.3-2.7]. A significantly reduced risk, on the other hand, was observed for technicians and related supports (OR = 0.5, 95% CI 0.3-0.9). No other occupational groups showed a significant association with breast-cancer risk. CONCLUSIONS: The observed increase in breast-cancer risk among teachers and librarians is consistent with most earlier studies. It is currently unknown, however, what factors may explain the observed increase. Considering that teachers and librarians represent one of the largest single occupational groups among employed US women, further investigation of this association is warranted.

PMID: 12369604 [PubMed - indexed for MEDLINE]

## **Abstract**

Background Several occupations have recently been related to breast-cancer. The results, however, are inconsistent. We analyse data from a case-control study of breast cancer in Connecticut conducted in 1994-97 to further examine the potential relationship between occupation and breast-cancer risk.

Methods A total of 608 breast-cancer cases and 609 controls, 31-85 years old, were included in the study. Information regarding occupation and other breast-cancer risk-factors was obtained through in-person interviews by trained interviewers, using a standardised, structured questionnaire.

Results after adjustment for major breast-cancer riskfactors, a significantly increased risk of breast cancer was observed for teachers and librarians [odds ratio (OR), = 1.9, 95% confidence interval (CI) 1.3-2.7]. A significantly reduced risk, on the other hand, was observed for technicians and related supports (OR = 0.5, 95% CI 0.3-0.9). No other occupational groups showed a significant association with breast-cancer risk.

Conclusions The observed increase in breast-cancer risk among teachers and librarians is consistent with most earlier studies. It is currently unknown, however, what factors may explain the observed increase. Considering that teachers and librarians represent one of the largest single occupational groups among employed US women, further investigation of this association is warranted.

Keywords: Case-CONTROL; Occupation; Industry