

Epidemiology

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A population-based cohort study on sun habits and endometrial cancer

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Abstract

BACKGROUND: No large cohort study has examined the risk of endometrial cancer in relation to sun exposure.

METHODS: A population-based cohort study of 29 508 women who answered a questionnaire in 1990–92, of whom 24 098 responded to a follow-up enquiry in 2000–02. They were followed for an average of 15.5 years.

RESULTS: Among the 17 822 postmenopausal women included, 166 cases of endometrial cancer were diagnosed. We used a multivariate Cox regression analysis adjusting for age and other selected demographic variables to determine the risk of endometrial cancer. Women using sun beds >3 times per year reduced their hazard risk (HR) by 40% (0.6, 95% confidence interval (CI) 0.4–0.9) or by 50% when adjusting for body mass index or physical activity (HR 0.5, 95% CI 0.3–0.9), and those women who were sunbathing during summer reduced their risk by 20% (HR 0.8 95% CI 0.5–1.5) compared with women who did not expose themselves to the sun or to artificial sun (i.e., sun beds).

CONCLUSION: Exposure to artificial sun by the use of sun beds >3 times per year was associated with a 40% reduction in the risk of endometrial cancer, probably by improving the vitamin D levels during winter.

Keywords: endometrial cancer, lifestyle, risk factor, sun habits, sun bed use, vitamin D

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