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Short Communication

Sun Exposure and Prostate Cancer Risk: Evidence for a Protective Effect of Early-Life Exposure

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Mounting experimental and epidemiologic evidence supports the hypothesis that vitamin D reduces the risk of prostate cancer. Some evidence suggests that prostate cancer risk may be influenced by sun exposure early in life. We analyzed data from the National Health and Nutrition Examination Survey I Epidemiologic Follow-up Study to examine associations of prostate cancer risk with early-life and adult residential sun exposure and adult sun exposures that were assessed through self-report, physician report, and dermatologic examination. We used solar radiation in the state of birth as a measure of sun exposure in early life. Follow-up from 1971 to 1975 (baseline) to 1992 identified 161 prostate cancer cases (102 nonfatal and 59 fatal) among non-Hispanic white men for whom sun exposure data were available. Significant inverse associations were found for men born in a region of high solar radiation (relative risk, 0.49, 95% confidence interval, 0.27-0.90 for high versus low solar radiation), with a slightly greater reduction for fatal than for nonfatal prostate cancer. Frequent recreational sun exposure in adulthood was associated with a significantly reduced risk of fatal prostate cancer only (relative risk, 0.47; 95% confidence interval, 0.23-0.99). These findings suggest that, in addition to sun exposure in adulthood, sun exposure in early life protects against prostate cancer. (Cancer Epidemiol Biomarkers Prev 2007;16(6):1283–6)