

Phytoestrogen consumption and endometrial cancer risk: a population-based case-control study in New Jersey

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Phytoestrogens have been shown to exert anti-estrogenic and estrogenic effects in some tissues, including the breast. However, only a few studies have evaluated their role in endometrial cancer risk. We evaluated this association in a population-based case-control study in New Jersey. A total of 424 cases and 398 controls completed an interview, including a food frequency questionnaire with supplemental questions for phytoestrogen foods. Risk estimates were derived using an unconditional logistic regression, adjusting for major risk factors for endometrial cancer. There was some suggestion of a decreased risk with quercetin intake (OR: 0.65; 95% CI: 0.41-1.01 for the highest compared to the lowest quartile; p for trend: 0.02). We found a limited evidence of an association with any of the lignans evaluated, total lignans, coumestrol, individual isoflavones, total isoflavones, or total phytoestrogens. However, there was some suggestion of an inverse association with total isoflavone intake limited to lean women (BMI <25; OR for the highest tertile: 0.50; 95% CI: 0.25-0.98) and those with a waist-to-hip ratio ≤ 0.85 (OR: 0.59; 95% CI: 0.33-1.05). There was no evidence of effect modification by HRT use. This study suggests a reduction in endometrial cancer risk with quercetin intake and with isoflavone intake in lean women.

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