

## Tomato/Tomato-based foods and Disease Risk

### Renal Cell Cancer Critical Findings

Disease type	First Author	Study Title and Complete Citation	Date	Abstract	Study Type	G.Tom +, N, -	P.Tom +, N, -	F.Tom +, N, -	Lyco +, N, -	Other +, N, -
Cancer: renal	Grieb SM	<p>Food groups and renal cell carcinoma: results from a case-control study.</p> <p>Grieb SM, Theis RP, Burr D, Benardot D, Siddiqui T, Asal NR.</p> <p>J Am Diet Assoc. 2009 Apr;109(4):656-67.</p>	2009	<p><b>BACKGROUND:</b> The role of diet in renal cell carcinoma risk has been inconclusive. This study uses an integrative approach to assess the role of food groups and food items in renal cell carcinoma risk. <b>DESIGN:</b> A case-control study was conducted from 2003-2006. <b>SUBJECTS/SETTING:</b> Incident cases (n=335) were identified from hospital records and the Florida cancer registry, and population controls (n=337) frequency matched by age (+/-5 years), sex, and race were identified through random-digit dialing. Eating habits were assessed through the use of the 70-item Block food frequency questionnaire. <b>STATISTICAL ANALYSES:</b> Odds ratios (ORs), 95% confidence intervals (CIs), and tests for trends were calculated using logistic regression, controlled for age, sex, race, income, body mass index, and pack-years of smoking.</p> <p><b>RESULTS:</b> Decreased renal cell carcinoma risk was observed among the total sample and for men for vegetable consumption (all subjects: OR 0.56, 95% CI 0.35, 0.88; men: OR 0.49, 95% CI 0.25, 0.96) but not for fruit consumption. Tomato consumption decreased renal cell carcinoma risk for the total population and for men (all subjects: OR 0.50, 95% CI 0.31, 0.81; men: OR 0.47, 95% CI 0.24, 0.95). Increased risk of renal cell carcinoma was observed among all subjects and among women with increased consumption of red meat (all subjects: OR 4.43, 95% CI 2.02, 9.75; women: OR 3.04, 95% CI 1.60, 5.79). White bread consumption increased renal cell carcinoma risk among women only (OR 3.05, 95% CI 1.50, 6.20), as did total dairy consumption (OR 2.36, 95% CI 1.21, 4.60).</p> <p><b>CONCLUSIONS:</b> The protective role of vegetables and the increased risk of renal cell carcinoma with meat consumption are supported. The protective role of fruits is not. Novel findings include the increased risk of renal cell carcinoma with white bread and white potato consumption and the decreased risk of renal cell carcinoma with tomato consumption.</p>	CC	(-) ↓ risk renal cancer				

Cancer: urothelial	Sakauchi F	<p>Dietary habits and risk of urothelial cancer death in a large-scale cohort study (JACC Study) in Japan.</p> <p>Sakauchi F, Mori M, Washio M, Watanabe Y, Ozasa K, Hayashi K, Miki T, Nakao M, Mikami K, Ito Y, Wakai K, Tamakoshi A; JACC Study Group.</p> <p>Nutr Cancer. 2004;50(1):33-9.</p>	2004	<p>In the present study, the associations of dietary habits with the risk of urothelial cancer death were evaluated taking into consideration sex, age, and smoking habits. The Japan Collaborative Cohort Study was established in 1988-1990 and consisted of 47,997 men and 66,520 women observed until the end of 1999. A self-administered food-frequency questionnaire was used as a baseline survey. Hazard ratios for dietary factors were calculated by Cox's proportional hazards model. During the observation period, 63 men and 25 women died of urothelial cancer. Increasing age, male gender, and history of smoking were all significantly associated with increased risk of urothelial cancer death. A high intake of milk and fruits other than oranges reduced the risk significantly and dose dependently, in particular among subjects with smoking history. However, consumption of butter and yogurt had no associations with the risk. Intakes of cabbage, lettuce, green leafy vegetables, carrots, squash, tomatoes, and oranges were not significantly associated with the risk. It was suggested that urothelial cancer death could be potentially preventable by smoking cessation and regular intake of milk and fruit.</p>	PC	N				
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