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Comparison of risk factors for colon and rectal cancer.

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Predictors of colorectal cancer have been extensively studied with some evidence suggesting that risk factors vary by subsite. Using data from 2 prospective cohort studies, we examined established risk factors to determine whether they were differentially associated with colon and rectal cancer. Our study population included 87,733 women from the Nurses' Health Study (NHS) and 46,632 men from the Health Professionals Follow Up Study (HPFS). Exposure information was collected via biennial questionnaires (dietary variables were collected every 4 years). During the follow-up period (NHS: 1980 to May 31, 2000; HPFS: 1986 to January 31, 2000), we identified 1,139 cases of colon cancer and 339 cases of rectal cancer. We used pooled logistic regression to estimate multivariate relative risks for the 2 outcomes separately and then used polytomous logistic regression to compare these estimates. In the combined cohort, age, gender, family history of colon or rectal cancer, height, body mass index, physical activity, folate, intake of beef, pork or lamb as a main dish, intake of processed meat and alcohol were significantly associated with colon cancer risk. However, only age and sex were associated with rectal cancer. In a stepwise polytomous logistic regression procedure, family history and physical activity were associated with statistically significant different relative risks of colon and rectal cancer. Our findings support previous suggestions that family history and physical activity are not strong contributors to the etiology of rectal cancer. Future investigations of colon or rectal cancer should take into consideration risk factor differences by subsite. Copyright 2003 Wiley-Liss, Inc.