

Two Apples a Day Reduces the Risk of Colorectal Cancer

In a case controlled study published in the *2009 Jan 20 issue of Epub Clinical Pharmacology*, researchers studied the beneficial effect of regular consumption of apples on colorectal cancer risk in a population with relatively low intake of fruits and vegetables.

This study is important as the consumption of fruit and vegetables amongst the general population in Australia is below world health recommendations.

- In this study a total of 592 incident cases of colorectal cancer have been enrolled in a hospital-based cohort. The comparison group included 765 controls chosen from the patients of the same hospital without history of cancer and admitted for treatment of nonneoplastic conditions.
- Interviews of both cases and controls were conducted in the hospital setting by trained interviewers. The median intake of fruits among the colorectal cancer patients was lower than in controls (9.5 vs. 11 servings/week) and the difference was statistically significant.
- Apples were the most frequent fruit consumed by the study participants and about 80% of variability in the total fruit consumption resulted from the intake of apples.

The results of the logistic analysis showed that the risk of colorectal cancer was greater in those who consumed the lowest daily number of apple servings.

The reduced risk of colorectal cancer of border significance level was already observed at the consumption of at least one apple a day, but the intake of more than one apple a day the risk was reduced by about 50%.

Neither the consumption of vegetables nor other fruits have shown beneficial effects on the risk of colorectal cancer. The observed protective effect of apple consumption on colorectal risk may result from their rich content of flavonoid and other polyphenols, which can inhibit cancer onset and cell proliferation.



Take home message: An Apple a Day may keep the doctor away but Two Apples a Day reduces the risk of Colorectal Cancer.

Geoff