Essentials of Health

In a new study published in Cancer Prevention Research, folic acid supplementation of 1 mg/day resulted in a 50% reduction in the risk of colorectal adenomas (polyps) in a large group of Chinese adults.

Folic acid supplementation linked to reduced risk of colorectal cancer

Colorectal adenomas (polyps) are often a precursor to colorectal cancer. Most research has focused on preventing recurrence of colorectal adenomas, but less is known about primary prevention. In a new article published online in *Cancer Prevention Research*, researchers report a significant reduction in the risk of colorectal adenomas in adults receiving supplemental folic acid.

The study included Chinese adults over the age of 50 who were free of any polyps at the beginning of the study. The participants were randomized to receive either a folic acid supplement of 1,000 mcg (1 mg) per day or a multivitamin supplement without folic acid. Plasma folate levels were measured at the beginning and conclusion of the 3 year treatment period. Colonoscopies were used to determine the location and size of all polyps, and were examined by a pathologist.

Of the 791 adults that completed the study, colorectal adenomas were seen in 64 (14.88%) of the folic acid supplemented group compared to 132 (30.70%) in the control group. Subjects in either group with the lowest plasma folate levels at the beginning of the study were at greater risk of developing adenomas. Those taking folic acid supplements were also less likely to develop advanced adenomas than the control group.

Contrary to some research that has suggested that high-dose folic acid might increase the recurrence and progression of colorectal cancer, only two individuals in the folic acid group developed colorectal cancer during the three year follow up and there was no significant difference with the control group.

The researchers conclude that people with low plasma folate should be encouraged to take supplemental folate to raise plasma folate to a more beneficial level, potentially reducing the risk of developing pre-cancerous adenomas. They also suggest that a dosage of 1 mg/day appeared safe and without any significant side effects.

Jing-Yuan Fang et al. Folic acid prevents the initial occurrence of sporadic colorectal adenoma in Chinese over 50 years of age: a randomized clinical trial. Published Online First May 16, 2013; doi: 10.1158/1940-6207.CAPR-13-0013.