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In a recent population-based European study, individuals with higher vitamin B2 and B6 levels had significantly decreased risks of colorectal cancer.

HIGH VITAMIN B LEVELS ASSOCIATED WITH REDUCED RISK OF COLORECTAL CANCER

New research reported in the October 2010 issue of *Cancer Epidemiology, Biomarkers and Prevention* shows a correlation between higher levels of vitamins B2 (riboflavin) and B6 and a reduced risk of developing colorectal cancer. B-vitamins are essential for metabolism and have been linked to colorectal cancer in previous studies. Since associations with the B-vitamin folate have been studied most often, researchers in the current study focused on potential associations of other B vitamins (B2, B6, and B12) and colorectal cancer.

This European population-based study included subjects who were participants in the Prospective Investigation into Cancer and Nutrition (EPIC) cohort. The study included 1,365 adults diagnosed with colorectal cancer and 2,319 age and gender-matched control subjects. Blood samples were taken at enrollment and analyzed for vitamins B2, B6, and B12, as well as 8 variants of genes that relate to the function of these vitamins.

After an average follow-up of 3.6 years, individuals whose vitamin B6 levels were among the top 20 percent of participants had a 32 percent lower risk of developing colorectal cancer when compared to those whose levels were in the lowest 20 percent. Among those whose vitamin B2 levels were highest, the risk was 29 percent lower than those whose levels were lowest. There were no significant associations for vitamin B12 and colorectal cancer. Vitamin levels were lower in smokers compared to nonsmokers, and the benefits for vitamin B6 were stronger in males who consumed ≥ 30 g (one ounce) of alcohol per day.

This research is the first population-based study to indicate that vitamin B2 is inversely associated with colorectal cancer, and it supports previously suggested inverse associations of vitamin B6 with colorectal cancer.

Eussen SJPM, et al. Vitamins B2, B6, and B12, and Related Genetic Variants as Predictors of Colorectal Cancer Risk. 2010. Cancer Epidemiol Biomarkers Prev 19(10):2549–61.