CALCIUM, VITAMIN D, AND DAIRY PRODUCTS ASSOCIATED WITH REDUCED RISK FOR COLON CANCER

This investigation examined the associations between calcium and vitamin D intakes from foods and dietary supplements and colorectal cancer risk in a multi-ethnic population of more than 85,000 men and 105,000 women (45-75 years) living in Hawaii and Los Angeles, California. The study targeted five ethnic/ racial groups including African Americans, Native Hawaiians, Japanese Americans, Latinos, and Whites. Nutrient intakes from food consumed at baseline were determined by using a food frequency questionnaire containing questions on more than 180 items. Furthermore, subjects were also asked to indicate their frequency and duration of supplement use given that they had consumed that supplement for at least one year.

Results:

Participants with higher intakes of calcium and vitamin D tended to be older, more health-conscious, physically active (women), non-smoking, use nonsteroidal anti-inflammatory drugs, multivitamins, hormone replacement therapy (women) and consume more dairy products and less alcohol.

The highest quintile of total calcium intake (>611 mg/1000 kcal/day) was associated with a 30% reduced risk of colorectal cancer risk in men and a 36% reduced risk in women.

A reduced risk for colorectal cancer was seen for **total** vitamin D intake in men, but not in women. A 28% reduction in colorectal cancer risk was observed in men with the highest vitamin D intake. Women with the highest intake of vitamin D from foods who did not take supplements showed a statistically significant 31% lower risk for colorectal cancer.

Dairy product consumption and milk consumption were related to a lower colorectal cancer risk in men and women. These inverse relationships became stronger, particularly in women, when multivitamins or calcium supplement use was excluded.

The authors say, "A possible protective effect of dairy products could be related to various constituents of these products in addition to calcium and vitamin D (through fortification), including conjugated linoleic acid, sphingolipids, butyric acid, and fermentation products." [Park S-Y, et al., *Am J Epidemiology*, 165(7): 784-793, 2007]