

High vitamin D levels linked to lower risk of colon cancer

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High blood levels of vitamin D are associated with a lower risk of colon cancer, finds a large European study published on bmj.com today. The risk was cut by as much as 40% in people with the highest levels compared with those in the lowest.

Several previous studies have already suggested a link between [vitamin D](#) and colorectal [cancer](#), but the evidence has been inconclusive with limited information from European populations.

So, researchers from across Europe set out to examine the association between circulating vitamin D concentration as well as dietary intakes of vitamin D and calcium with colorectal cancer risk in Western European populations. Colorectal cancer is the combination of colon and rectal cancer cases.

Their findings are based on the European Prospective Investigation into Cancer Study (EPIC), a study of over 520,000 subjects from 10 Western European countries.

Between 1992 and 1998, participants completed detailed dietary and lifestyle questionnaires and blood samples were collected. The subjects were then tracked for several years, during which time 1,248 cases of colorectal cancer were diagnosed and these were matched to 1,248 healthy controls.

Participants with the highest levels of blood vitamin D concentration had

a nearly 40% decrease in colorectal cancer risk when compared to those with the lowest levels.

However, some recent publications have suggested maintenance of blood vitamin D levels at 50 nmol/l or higher for colorectal [cancer prevention](#). Thus, the authors also compared low and high levels of blood vitamin D concentration to a mid-level of 50-75 nmol/l. This comparison showed that while levels below the mid-level were associated with increased risk, those above 75 nmol/l were not associated with any additional reduction in [colon cancer](#) risk compared to the mid-level.

Although the results support a role for vitamin D in the etiology of colorectal cancer, the authors caution that very little is known about the association of vitamin D with other cancers and that the long term health effects of very high circulating vitamin D concentrations, potentially obtained by taking supplements and/or widespread fortification of some food products, have not been well studied.

With respect to colorectal cancer protection, it is still unclear whether inducing higher blood vitamin D concentration by supplementation is better than average levels that can be achieved with a balanced diet combined with regular and moderate exposure to outdoor sunlight, they say.

The findings of previous randomised trials have been inconsistent. As such, new trials should be carried out to evaluate whether increases in circulating vitamin D concentration can effectively reduce colorectal cancer risk without inducing serious adverse events, they conclude. Currently, the best recommendation to reduce ones risk of [colorectal cancer](#) is to stop smoking, increase physical activity, reduce obesity and abdominal fatness, and limit intakes of alcohol and red and processed meats.

Provided by British Medical Journal

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