

Clinical Update

Vitamin K may reduce cancer risk: EPIC study

Consuming foods rich in vitamin K2 may reduce the risk of cancer, says a new study supporting the potential anti-cancer benefits of this emerging nutrient.

(American Journal of Clinical Nutrition, March 2010)

Results from the European Prospective Investigation into Cancer and Nutrition (EPIC) study found that the highest intakes of vitamin K2, but not vitamin K1, were associated with a reduced risk of both overall cancer and cancer mortality, with the latter reduced by about 30 per cent.

There are two main forms of vitamin K: phylloquinone, also known as phytonadione, (vitamin K1) and menaquinones (vitamins K2). K1 is found in green leafy vegetables such as lettuce, broccoli and spinach, and makes up about 90 per cent of the vitamin K in a typical Western diet; while K2, which makes up about 10 per cent of Western vitamin K consumption and can be synthesised in the gut by microflora.

There are various forms of menaquinones, and these can also be found in the diet: Menaquinone-4, for example, can be found in animal meat, while menaquinones-7, -8, and-9 are found in fermented food products like cheese, and natto is a rich source of menaquinone-7.

Maintaining intakes

The new study, published in the *American Journal of Clinical Nutrition*, appear to support the anti-cancer benefits of vitamin K2, with the majority of the nutrient being consumed from cheese. The study adds to an ever-growing body of science supporting the benefits of vitamin K2, most well established for bone and cardiovascular health. Emerging evidence also supports a potential role for reducing the risk of prostate cancer.

Interestingly, Joyce McCann, PhD, and Bruce Ames, PhD, from the Children's Hospital Oakland Research Institute reported last year that current recommendations for vitamin K are not being met, placing people at increased risk of age-related diseases such as cancer and heart disease.

Current recommendations are based on levels to ensure adequate blood coagulation, but failing to ensure long-term optimal levels of the vitamin may accelerate bone fragility, arterial and kidney calcification, cardiovascular disease, and possibly cancer, wrote the researchers in the October 2009 issue of the *American Journal of Clinical Nutrition*.

New data

The new study, led by Jakob Linseisen from the German Research Centre for Environmental Health, analysed data from 24,340 participants aged between 35 and 64 participating in the EPIC-Heidelberg cohort study. The participants were following for over 10 years, during which 1,755 cases of cancer were documented. Of these 458 turned out to be fatal cases. Results showed that people with the highest average intakes of vitamin K2 were 14 per cent less likely to develop cancer, compared to people with the lowest average intakes. Furthermore, a 28 per cent reduction in cancer mortality was observed for people with the highest average intakes.

Dr Linseisen and his co-workers also report that significant associations with prostate cancer, as observed in previous studies, meant that the cancer risk reduction was more pronounced in men.

Source: www.nutraingredients.com

