



Higher vitamin K intake tied to lower cancer risks

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(Reuters Health) - People with higher intakes of vitamin K from food may be less likely to develop or die of cancer, particularly lung or prostate cancers, than those who eat relatively few vitamin-K- containing foods, a new study suggests.

The study, reported in the American Journal of Clinical Nutrition, appears to be the first to look at the association between vitamin K intake and the risk of developing or dying from cancer in general. A previous report had linked it to lower prostate cancer risk.

The findings do not prove that consuming more vitamin K helps lower the risks of certain cancers. But they lay the foundation for future studies to try to answer that question, according to Dr. Jakob Linseisin and colleagues at the German Cancer Research Center in Heidelberg.

Vitamin K exists in two natural forms: vitamin K1, or phylloquinone, found largely in green leafy vegetables, as well as some vegetable oils, such as canola and soybean oils; and vitamin K2, or menaquinone, for which meat and cheese are the primary dietary sources.

In the current study, vitamin K2 -- which study participants most frequently got through cheese -- was linked to the odds of developing or dying from cancer, whereas vitamin K1 was not.

The findings are based on data from 24,340 German adults who were between the ages of 35 and 64, and cancer-free at the outset. The researchers estimated the participants' usual vitamin K intake based on a detailed dietary questionnaire.

Over the next decade, 1,755 participants were diagnosed with colon, breast, prostate or lung cancers, of whom 458 died during the study period.

In general, the researchers found, the one quarter with the highest intakes of vitamin K2 were 28 percent less likely to have died of any one of the cancers than the one-quarter of men and women with the lowest intakes of the vitamin. That was with factors like age, weight, exercise habits, smoking and consumption of certain other nutrients, like fiber and calcium, taken into account.

Of the one-quarter of study participants who got the least vitamin K2, 156 -- or 2.6 percent -- died of one of the four cancers. That was true of 1.6 percent of participants with the highest intakes of the vitamin from food.

When Linseisin's team looked at the cancer types individually, there was no clear link between either form of vitamin K and breast cancer or colon cancer. However, greater consumption of vitamin K2 was

linked to lower risks of developing or dying from lung cancer -- a disease for which smoking is the major risk factor -- or of developing prostate cancer.

Of the one-quarter of study participants with the lowest vitamin K2 intakes, 47 -- or 0.8 percent -- developed lung cancer, versus 0.4 percent of the one-quarter who got the most vitamin K2 in their diets.

When it came to prostate cancer, there were 111 cases among the one-quarter of men with the lowest vitamin K2 intakes, and 65 cases in the group with the highest consumption.

In theory, vitamin K itself could offer some protection against cancer. It's often used to counteract too-high doses of blood thinners, although this does not have an obvious link to cancer. In lab research, however, Linseisin and his colleagues point out, the vitamin has been shown to inhibit cancer cell growth and promote apoptosis -- a process by which abnormal cells kill themselves off.

But whether vitamin K intake itself is responsible for the lower cancer risks in this study is unclear, according to the researchers. One limitation is that they estimated vitamin K intake based on participants' reported eating habits; most of their vitamin K came from eating cheese, and it's possible, Linseisin and his colleagues note, that some other components of that food are related to cancer risk.

Future studies, the researchers say, should measure people's blood levels of vitamin K and look at the relationship of those levels with cancer risks.

In the U.S., the recommended daily intake for vitamin K, in all forms, is 120 micrograms for men and 90 micrograms for women.

In the current study, men in the group with the highest vitamin K intake from food got 92 micrograms a day or more; their female counterparts got at least 84 micrograms per day.

SOURCE: American Journal of Clinical Nutrition, online March 24, 2010.