

Vitamin and calcium supplements may reduce breast cancer risk

April 18 2010

Vitamins and calcium supplements appear to reduce the risk of breast cancer, according to findings presented at the American Association for Cancer Research 101st Annual Meeting 2010.

"It is not an immediate effect. You don't take a vitamin today and your breast cancer risk is reduced tomorrow," said Jaime Matta, Ph.D., professor in the Ponce School of Medicine in Puerto Rico. "However, we did see a long-term effect in terms of breast cancer reduction."

Matta said the findings suggest that the calcium supplements are acting to enhance DNA repair capacity, a complex biological process involving more than 200 proteins that, if disrupted, can lead to cancer.

"This process involves at least five separate pathways and is critical for maintaining genomic stability," said Matta. "When the DNA is not repaired, it leads to mutation that leads to cancer."

The study included 268 women with breast cancer and 457 healthy controls. Women were more likely to have breast cancer if they were older, had a family history of breast cancer, had no history of [breastfeeding](#) and had lower DNA repair capacity.

[Vitamin supplements](#) appeared to reduce the risk of breast cancer by about 30 percent. Calcium supplements reduced the risk of breast cancer by 40 percent. After controlling for the level of [DNA repair](#) capacity, calcium supplements were no longer as protective, but the link between

vitamin supplements and [breast cancer](#) reduction remained.

"We're not talking about mega doses of these vitamins and calcium supplements, so this is definitely one way to reduce risk," said Matta.

Provided by American Association for Cancer Research

Citation: Vitamin and calcium supplements may reduce breast cancer risk (2010, April 18)
retrieved 26 April 2024 from
<https://medicalxpress.com/news/2010-04-vitamin-calcium-supplements-breast-cancer.html>

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