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# Regular use of vitamin and mineral supplements could reduce the risk of colon cancer

**Ottawa, Ontario** —Could the use of vitamin and mineral supplements in a regular diet help to reduce the risk of colon cancer and protect against carcinogens? A study published in the *Canadian Journal of Physiology and Pharmacology* (*CJPP*) found that rats given regular multivitamin and mineral supplements showed a significantly lower risk of developing colon cancer when they were exposed to carcinogens.

"It has been unclear whether multivitamin supplementation to cancer patients is helpful, has no effect, or is even detrimental during therapy," commented Dr. Grant Pierce, Editor of CJPP. "This study is important because it gives some direction to cancer patients in desperate need of guidance on the value of multivitamins and minerals administered during cancer."

The authors studied rats that were fed a high-fat diet (20% fat) over a 32 week period. The rats were divided into 6 groups, which were exposed to different combinations of supplements and carcinogens; the colon carcinogenisis induced in the study rats has characteristics that mimic human colon cancer. Rats fed a high-fat plus low-fibre diet and exposed to carcinogens developed pre-cancerous lesions; whereas, rats undergoing similar treatment, but provided with daily multivitamin and mineral supplements, showed a significant (84%) reduction in the formation of pre-cancerous lesions and did not develop tumours.

The authors conclude that "multivitamin and mineral supplements synergistically contribute to the cancer chemopreventative potential, and hence, regular supplements of multivitamins and minerals could reduce the risk of colon cancer."

The study "Multivitamin and mineral supplementation in 1,2-dimethylhydrazine induced experimental colon carcinogenesis and evaluation of free radical status, antioxidant potential, and incidence of ACF" appears in the January issue of *CJPP*.

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#### **Full Reference:**

Arul, A.B., Savarimuthu, I., Alsaif, M.A., Al Numair, K.S. 2012. Multivitamin and mineral supplementation in 1,2-dimethylhydrazine induced experimental colon carcinogenesis and evaluation of free radical status, antioxidant potential, and indicence of ACF. *Canadian Journal of Physiology and Pharmacology*, 90: 45–54. [Available Open Access on the www.nrcresearchpress.com website.]

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