

## POTENTIAL EFFECT OF VITAMIN D STATUS AGAINST CANCER.

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### **Introduction.**

Epidemiologic and trial data suggest that vitamin D supplementation may reduce metastatic cancer and cancer mortality, reflecting shared biological pathways.

### **Background.**

In an interesting study, based on an analysis of a randomized trial with 25.871 patients, supplementation with vitamin D, reduced the incidence of advanced cancer in the overall cohort, with strongest risk reduction in individuals with normal weight and no reduction among individuals with overweight or obesity.

These findings suggest that vitamin D may reduce the risk of developing advanced cancer among adults without a diagnosis of cancer at baseline. This protective effect is apparent for those who have normal but not elevated body mass index.

These data may be considered as preliminary data, despite the large general population sample included and the inclusion of racial/ethnic considerations. But these preliminary data may inform current ongoing studies with vitamin D. As a primary prevention trial, an initial recommendation for supplementation may be proposed: 2000 IU per day, but higher doses could be considered for future studies. Median treatment duration was to be determined as depending of follow-up studies. Ongoing trials <sup>(1-2)</sup> will add information regarding other doses and taking in account serum concentration of 25(OH)D.

Potential toxic effects of vitamin D over dosage, such as bone demineralization, hypercalcemia, hypercalciuria, or nephrocalcinosis with renal failure, are encountered rarely. These side effects may be significantly reducing with the correlation of serum levels of 25(OH)D, monitored with a temporal procedure.

### **Conclusion.**

Supplemental vitamin D intake could address the high prevalence of vitamin D deficiency in many countries in the world. Many studies indicate that intake or synthesis of vitamin D is associated with reduced incidence and death rates of colon, breast, prostate, and ovarian cancers.

Many laboratories and epidemiological studies have been published concerning the association between vitamin D and its metabolites and cancer. Long-term studies have demonstrated the efficacy of moderate intake of vitamin D in reducing cancer risk. Despite these reassuring studies, up to now, the public health and medical communities have not adopted use of vitamin D for cancer prevention.

### **References.**

- 1- BASSUK SS, et al. Baseline characteristics of participants in the vitamin D and omega-3 trial (VITAL).  
Contemp Clin Trials 2016; 47: 235-243.
- 2- HAIDARI F, et al. Effects of vitamin D and omega-3 fatty acids co-supplementation on inflammatory biomarkers, tumor marker CEA, and nutritional status in patients with colorectal cancer: a study protocol for a double blind randomized controlled trial.  
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