The Vitamin D and cancer controversy

**Bottom Line**
- Additional research is required to confirm that vitamin D supplements prevent cancer (and at what dose)
- In the mean time it is unlikely to be harmful for adults to take up to 1000 IU/day of Vit D but WARN patients to avoid taking >2000 IU/day FROM ALL SOURCES (including diet, milk and dairy, vitamins)

**What is the controversy?**
Recently, the Canadian Cancer Society has recommended:
1. ADULTS take a Vit D supplement of 1000 IU/day during fall and winter months
2. ADULTS at high risk (i.e., elderly, dark skin, minimal sun exposure) take a Vit D supplement of 1000 IU/day year around

**Why did they do this?**
- A recent RCT\(^1\) of 1179 postmenopausal women assessing the impact of Calcium + Vit D on fractures found a 60%\(\downarrow\) in overall cancer rates in those who took Calcium 1400-1500mg/d + Vit D 1100IU /d
- A 2\(^{nd}\) study published in May 2007\(^2\) found a trend towards \(\downarrow\) breast cancer rates in women who had higher Calcium and Vit D intake
- Multiple previous epidemiologic trials (*poor level of evidence*) found possible correlations between increased Vit D levels & decreased cancer incidence

**Does everyone agree with this?**
- No – Health Canada has published an advisory stating that they have not changed their recommendations regarding Vit D intake and are awaiting an international conference in September 2007 (where this will be discussed) to make a decision regarding higher dosage recommendations ([click for link](http://www.hc-sc.gc.ca/ahc-asc/media/advisories-avis/2007/2007_72_e.html))
- Cdn Osteoporosis Guidelines continue to recommend Vit D 800 IU/day for treatment and 400-800 IU/day\(^*\) for prevention of osteoporosis \(^3,4\)
  \(^*\)Based on Level C evidence; expert consensus

**What is the concern?**
- Excessive Vit D intake can lead to hypercalcemia, hypercalcuria, kidney stones, bone resorption and soft tissue calcification
- Precise “toxic” Vit D doses are not known, but Health Canada recommends a maximum dose of 2000 IU/day FROM ALL SOURCES (incl. vitamins, food, milk and dairy products)
- The study published most recently (i.e., the first study mentioned above) has some important limitations\(^1\):
  - a VERY small number of cancers were diagnosed and patients were followed for only 4 years
  - long term safety was not assessed
  - only Caucasian women were studied
  - only one Vit D level was drawn & dietary intake was not monitored

**How much Vit. D is in various foods?**
- Click for table [here](http://ods.od.nih.gov/factsheets/vitamind.asp) (e.g. Salmon, tuna, fortified milk and cereals)

---

© Copyright & Disclaimer Information at [https://www.rxfiles.ca/Copyright%20&%20Disclaimer.html](https://www.rxfiles.ca/Copyright%20&%20Disclaimer.html)