

<http://www.bccancer.bc.ca/HPI/UnconventionalTherapies/VitaminDCholecalciferol/Calcitriol.htm>

Vitamin D / Cholecalciferol / Calcitriol

The role of your cancer health professional is to create an environment of openness and trust, and to help in making informed decisions about alternative/ complementary therapies. Collaboration will improve the safe integration of all therapies during your experience with cancer. The "Summary" and "Professional Evaluation/ Critique" sections of this Unconventional Therapies manual are cited directly from the medical literature, and are intended to help in the objective evaluation of alternative/ complementary therapies.

Summary

There is no definitive evidence that vitamin D is effective as a preventive agent or as a treatment for cancer in humans. Further study is necessary. The use of vitamin D may be limited by its toxicity.

"High doses of vitamin D are toxic which may cause an excess of calcium in the blood. Extreme cases may lead to death." (Ontario)

Description/ Source/ Components

Vitamin D is found in natural sources such as herring, mackerel, "fortified milk, fish liver oils, and liver. Vitamin D is also made by the body upon exposure to sunlight." (Ontario)

Professional Evaluation/ Critique - Use in Preventing Cancer

"High doses of vitamin D are toxic which may cause an excess of calcium in the blood. Extreme cases may lead to death." (Ontario)

Professional Evaluation/ Critique - Use in Treating Cancer

There have been no studies published in any peer-reviewed journal [according to a literature search done in Medline and Cancerlit (June 1999)] that prove the efficacy of vitamin D or its analogues as a cure for cancer in humans.

"...the use of 1,25(OH)₂D [calcitriol] in vivo is limited by the risk of hypercalcemia" (Lokeshwar)

Dose dependent calciuric side effects of calcitriol limit its clinical usefulness. (Gross)

Toxicity/ Risks

"Vitamin D is the most toxic of all the vitamins. As little as 2,000 IU a day - only five times required amounts - can be toxic to children." (McDonald)

"Vitamin D overdose becomes evident in elevated blood calcium levels causing symptoms of anorexia, nausea and vomiting, polyuria [the passage of a large volume of urine], polydipsia [chronic excessive intake of water], weakness, pruritus [itching], and nervousness, potentially with irreversible calcification of soft tissue in the kidney and liver. As newer, more highly active

forms of vitamin D are developed, it becomes imperative to monitor even more carefully for this potential toxicity." (Spencer)

"Large doses of vitamin D also are linked to increased risk for premature heart attack, atherosclerosis, and possibly kidney stones in people who are predisposed to kidney problems. Vitamin D overdose develops over time and there is wide variation among individuals in their tolerance to toxicity." (Somer)

"Prolonged exposure to sunlight does not cause vitamin D toxicity. The body has an efficient feedback system and reduces the production of vitamin D with increased exposure to sunlight." (Somer)

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