

Jeffrey Dach MD Bio-Identical Hormone Blog

<http://jeffreydach.com>

Sunday, June 10, 2007

Vitamin D Deficiency by Jeffrey Dach MD

Vitamin D Deficiency, the Ignored Epidemic of the Developed World by Jeffrey Dach MD



Is it a New Bio-Tech Drug, or is it Vitamin D?

What if I told you I discovered a Bio-Tech company with a new drug that could reduce the number of cancer deaths in the US by 43,000 annually, reduce colon cancer by 50%, and breast and ovarian cancer by 30%. Would you be impressed? What if I then told you this same drug could safely prevent or alleviate the following medical conditions: Osteoporosis, Hypertension, Cardiovascular disease, Cancer, Depression, Epilepsy, Type One Diabetes, Insulin resistance, Autoimmune Diseases, Migraine Headache, Polycystic Ovary Disease (PCOS), Musculoskeletal and bone pain, Psoriasis, and Rheumatoid Arthritis, Inflammatory Bowel Disease (Cohn's), chronic lymphocytic leukemia (CLL)([15](#)), as well as improve calcium absorption and reduce hip fractures.([5A](#))

Above Image: Girl in the Sunlight. Portrait of Maria Simonovich. 1888. Oil on canvas. The Tretyakov Gallery, Moscow, Russia. Courtesy Wikimedia Commons.

Would you then be even more impressed, and rush out to buy the company stock and get rich quick? Of course you would, but we don't need a new Bio-Tech drug to do this, because, all of the above benefits can be obtained with Vitamin D, an inexpensive vitamin which is free with sun exposure.

Vitamin D Deficiency in Florida, Surely You must Be Joking:

We all know it's a fact: Everyone in Florida gets plenty of Vitamin D from the Florida Sun. This would have been true except for the fact that as Floridians, we are all told to avoid the sun to prevent solar skin damage (brown wrinkling) and to avoid skin

cancer.

So the question remains, do we get enough Vitamin D from sun exposure? To answer this question, we actually measured blood Vitamin D levels, and we were surprised to discover that the **majority** showed Vitamin D deficiency (less than 20 ng/ml), or insufficiency (less than 40 ng/ml).

What if you are not fortunate to live in sunny Florida and you live up north above the Mason Dixon Line, in Boston, New York, Chicago, Canada or Scandinavia? Northern latitudes have an even more serious vitamin D deficiency because of the lack of UV sunlight during the winter months. The angle of the sun through the atmosphere closes off the UltraViolet Light from reaching the earth.

An Epidemic of Vitamin D Deficiency

Vitamin D deficiency has been reported in 57% of 290 medical inpatients in Massachusetts, 93% of 150 patients with overt musculoskeletal pain in Minnesota, 48% of patients with Multiple Sclerosis, 50% of patients with lupus and fibromyalgia, 42% of healthy adolescents, 40% of African American Women, and 62 % of the morbidly obese, 83% of 360 patients with low back pain in Saudi Arabia, 73% of Austrian patients with Ankylosing Spondylitis, 58% of Japanese girls with Graves's Disease, 40% of Chinese adolescent girls, 40-70% of all Finnish medical patients. ([5A](#))

Vitamin D Toxicity

Vitamin D excess and toxicity requires daily dosage in excess of 40,000 units over a period of months, so 5,000 units a day is safe and far below the level needed to develop vitamin D toxicity. Remember Vitamin D is a fat soluble vitamin, so toxicity is possible with massive doses over long periods of time. Vitamin D toxicity causes elevated calcium levels. That's why Vitamin D supplementation should be done only under your physician's supervision with monitoring of serum 25-Hydroxy Vitamin D levels.

Space Satellite Maps

Maps of UV Sunlight exposure correlate with incidence of Cancer and Multiple Sclerosis.

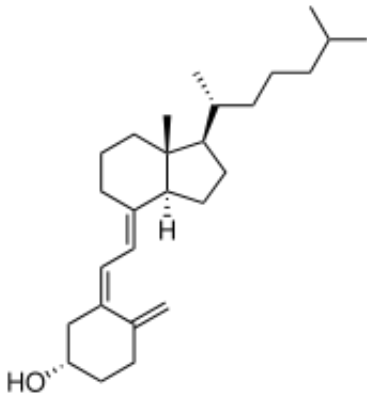
If you take NASA space satellite photos of North America and color code the UV sunlight exposure as Dr. Grant has done on his [web site, Sunarc.org \(3\)](#), you will see a pattern remarkably similar to the incidence of cancer and multiple sclerosis. This is thought to be due to differences in Vitamin D levels. The farther north with less sun exposure and lower Vitamin D levels, there is an increased incidence of cancer and multiple sclerosis.

Diseases Caused By, or Associated With Vitamin D Deficiency:

Again here is the list: Osteoporosis, Hypertension, Cardiovascular disease, Cancer, Depression, Epilepsy, Type One Diabetes, Insulin resistance, Autoimmune Diseases, Migraine Headache, PolyCystic Ovary Disease (PCOS), Musculoskeletal and bone pain, Psoriasis, and chronic lymphocytic leukemia (CLL)([15](#)).

The current recommendation for Vitamin D deficiency in those people who must avoid the sun is 5,000 IU of Vitamin D per day which costs 5 cents a day..

Vitamin D is not really a Vitamin, it is a Hormone.



Like all other steroidal hormones, vitamin D is made from a cholesterol precursor, converted in the skin by sunlight. Like all other hormones, Vitamin D enters the nucleus of the cell and binds to the DNA where it gives a message to the DNA to manufacture proteins.

Image left: Vitamin D Chemical Structure Courtesy Wikipedia

Vitamin D And Multiple Sclerosis.

A review by Dr. Brown reported that Vitamin D supplementation prevented the development and progression of experimental autoimmune encephalitis, an animal model of MS, in mice. A large, prospective, cohort study found that vitamin D supplementation was associated with a 40% reduction in the risk of developing MS. Four small, noncontrolled studies suggested that vitamin D supplementation may decrease exacerbation of MS symptoms. ([20](#))

MRI studies of multiple sclerosis lesions show improvement during summer months and worsening during winter months suggesting a Vitamin D link. ([36](#))

Vitamin D and Cancer

A four-year clinical [trial](#), involving 1,200 women found those taking the vitamin had about a 60-per-cent reduction in cancer incidence, compared with those who didn't take it, a drop so large — twice the impact on cancer attributed to smoking — it almost looks like a typographical error. The study was done by professor of medicine Robert Heaney of Creighton University in Nebraska and was published in June 2007. ([36A](#))([36](#))

Vitamin D and Total Mortality

A 2007 meta-analysis review of 18 studies showed a reduction in all cause mortality of about 10% in people supplementing with commonly used doses of Vitamin D.([39](#))

Vitamin D Supplementation for Adults

The RDA in America is only 400 IU per day, yet current research suggests that our daily Vitamin D requirement is closer to 4,000 to 5,000 IU. Twenty minutes of Sun exposure will give us ten to twenty thousand IU of Vitamin D.

Adult Supplementation with Carlson's Cod Liver Oil can provide Vitamin D along with Vitamin A . However, for an intake of 5,000 IU vitamin D per day, inexpensive Vitamin D3 capsules are widely available for about 5 cents a day. We provide these as a convenience to our office patients.

Vitamin D Testing at the Lab

Optimal serum 25-hydroxyvitamin D values are 45-50 ng/ml. Below 40 ng/ml is called Vitamin D insufficiency, and below 20 ng/ml is deficiency.

Conclusion

Our health care system is in crisis. We are spending billions on expensive procedures like coronary artery bypass and organ transplantation, yet measurements of health are lower than other countries that spend less. In terms of getting more bang for your health care buck, Vitamin D testing and supplementation for the population is one solution which is guaranteed to improve overall health of the population at a ridiculously low cost.

The cost saving in reduced cancer rates, and lower osteoporotic fracture rates would be enormous, and we would all enjoy improved health. My goal as a physician in our community is to improve the health of our community, and Vitamin D testing and supplementation is one way to achieve that goal with no adverse side effects and enormous cost savings.

Jeffrey Dach MD
4700 Sheridan Suite T
Hollywood Florida
954 983 1443
www.drdach.com
www.jeffreydach.com
www.naturalmedicine101.com
www.truemedmd.com

[Jeffrey Dach, M.D. BLOG TrueMedMD Newsletter Subscribe](#)
4700 Sheridan, Suite T.
Hollywood Florida, 33021
954 983 1443

References

(1) <http://www.vitamin-d-veith.ms-diet.org/>

Prospects for Vitamin D Nutrition. Vitamin D and Human Evolution Clinical relevance of higher vitamin D intakes, Toxicology of Vitamin D Reinhold Vieth, Pathology and Laboratory Medicine, Mount Sinai Hospital, and Laboratory Medicine and Pathobiology, University of Toronto Calgary AB, Oct 13 2005. Highly recommended Web Cast video presentation on Vitamin D by Dr. Vieth

(1A) <http://wildhorse.insinc.com/directms13oct2005/>

another link to this same video presentation on Vitamin D by Dr. Vieth

(2) <http://articles.mercola.com/sites/articles/archive/2004/04/03/vitamin-d-grant.aspx>

Valuable Insights Into the Importance of Vitamin D and Sun on Mercola.com, Interview with William B. Grant, Ph.D.

(3) <http://www.sunarc.org/>

Satellite Maps, Cancer mortality rates and multiple sclerosis prevalence rates for U.S.

states compared to UVB doses for July, William B. Grant, Ph.D.

(4) <http://www.sunarc.org/embryms1.htm>

Vitamin D Supplementation in the Fight Against Multiple Sclerosis, Ashton F. Embry, Ph.D. 2004, Journal of Orthomolecular Medicine, v.19, p. 27-38.

(5) <http://www.vitamindcouncil.org/>

Vitamin D Council, John Cannell MD Web Site: Understanding Cholecalciferol Vitamin D

(5A) <http://www.vitamindcouncil.org/PDFs/cme-clinical-importance-vit-d.pdf>

Excellent review article on Vitamin D by John Cannell MD full PDF File Clinical Importance of Vitamin D: A Paradigm Shift. ALTERNATIVE THERAPIES, sept/oct 2004, VOL. 10, NO. 5

(6) <http://www.vitamindcouncil.org/bestNewsArticles.shtml>

Listing of the best Vitamin D articles on the internet posted by John Cannell Vitamin D Council.

(7) <http://www.knowledgeofhealth.com/>

Cancer Defeated: Vitamin D Pill For All. Economical Pill Would Cut Cancer Rates In Half.

Bill Sardi Knowledge of Health Blog

(8) <http://www.lewrockwell.com/sardi/sardi70.html>

Just One Pill Away, by Bill Sardi, review of Vitamin D on Lew Rockwell.

(9) <http://www.medicalnewstoday.com/articles/24941.php>

Medical News Today. Healthcare Professionals Ignore Vitamin D Deficiency Epidemic by John Cannell MD

(10) <http://articles.mercola.com/sites/articles/archive/2006/10/26/beware-of-most-prescription-vitamin-d-supplements.aspx>

Beware of prescription Vitamin D supplements, info from Mercola

(11) <http://articles.mercola.com/sites/articles/archive/2004/02/28/vitamin-d-part-twenty.aspx>

Vitamin D Lowers inflammation by John Cannell MD on Mercola.com

(12) <http://lpi.oregonstate.edu/infocenter/vitamins/vitaminD/index.html>

Linus Pauling Institute on Vitamin D

(13) <http://lpi.oregonstate.edu/infocenter/vitamins/vitaminD/drefs.html>

Linus Pauling Institute Vit D References with Links.

(15) <http://www.clltopics.org/VitaminD3/EssentialforHealth.htm>

Chronic Lymphocytic Leukemia Web Site: CLL topics: vitamin D is quite cytotoxic to CLL cells?

(16) <http://www.ajcn.org/cgi/content/full/69/5/842>

Vieth, Reinhold. Vitamin D supplementation, 25-hydroxyvitamin D concentrations, and safety. American Journal of Clinical Nutrition, Vol. 69, No. 5, 842-856, May 1999

(17) <http://cebp.aacrjournals.org/cgi/content/abstract/16/3/422>

Vieth, Reinhold, Vitamin D and Reduced Risk of Breast Cancer: A Population-Based Case-Control Study. *Cancer Epidemiology Biomarkers & Prevention* 16, 422-429, March 1, 2007.

(18) <http://www.ajcn.org/cgi/content/full/73/2/288>

Veith R, Chan P-C R, MacFarlane G D. "Efficacy and safety of vitamin D3 intake exceeding the lowest adverse effect level." *Am J Clin Nutr* 2001; 71: 288-294

(19) <http://jama.ama-assn.org/cgi/content/abstract/296/23/2832>

Munger, Levin, Hollis, PhD Howard, Ascherio, Serum 25-Hydroxyvitamin D Levels and Risk of Multiple Sclerosis *JAMA*. 2006;296:2832-2838 Epidemiological and experimental evidence suggests that high levels of vitamin D, a potent immunomodulator, may decrease the risk of multiple sclerosis.

(20) <http://www.theannals.com/cgi/content/abstract/40/6/1158>

Brown, Sherrill J, The Role of Vitamin D in Multiple Sclerosis , *DRUG INFORMATION ROUNDS, The Annals of Pharmacotherapy*: Vol. 40, No. 6, pp. 1158-1161. DOI 10.1345/aph.1G513

(21) <http://www.ajcn.org/cgi/reprint/76/1/3.pdf>

Michael F Holick, Editorial: Too little vitamin D in premenopausal women: why should we care? *Am J Clin Nutr* 2002;76:3-4.

(22) <http://www.ajcn.org/cgi/content/full/79/3/362>

Michael F Holick, Vitamin D: importance in the prevention of cancers, type 1 diabetes, heart disease, and osteoporosis *American Journal of Clinical Nutrition*, Vol. 79, No. 3, 362-371, March 2004

(23) <http://www.ajcn.org/cgi/content/full/80/6/1678S>

Holick , Michael F VITAMIN D AND HEALTH IN THE 21ST CENTURY: BONE AND BEYOND, Sunlight and vitamin D for bone health and prevention of autoimmune diseases, cancers, and cardiovascular disease *American Journal of Clinical Nutrition*, Vol. 80, No. 6, 1678S-1688S, December 2004. Excellent full text article review.

(24) <http://books.google.com/books?>

[id=FvH7ySek6vAC&pg=PA3&lpg=PA3&dq=michael+f+holick+vitamin+d&source=web&ots=4OzEEZCiX2&sig=pkZAqXRIKtNB-YtwdXxt2HfSXWI#PPR6,M1](http://books.google.com/books?id=FvH7ySek6vAC&pg=PA3&lpg=PA3&dq=michael+f+holick+vitamin+d&source=web&ots=4OzEEZCiX2&sig=pkZAqXRIKtNB-YtwdXxt2HfSXWI#PPR6,M1)

Vitamin D Analogs in Cancer Prevention and Therapy By Jorg Reichrath, M. Friedrich, Chapter by Michael Holick Vitamin D in Book Online:

(25) <http://jn.nutrition.org/cgi/content/abstract/130/11/2648>

1,25-Dihydroxycholecalciferol Prevents and Ameliorates Symptoms of Experimental Murine Inflammatory Bowel Disease. *Journal of Nutrition*. 2000;130:2648-2652. Margherita T. Cantorna, Carey Munsick, Candace Bemiss and Brett D. Mahon

(26) <http://jn.nutrition.org/cgi/content/full/135/11/2739S>

Holick, Michael F, The Influence of Vitamin D on Bone Health Across the Life Cycle, The Vitamin D Epidemic and its Health Consequences *J. Nutr.* 135:2739S-2748S, November 2005

(27) <http://www.westonaprice.org/basicnutrition/vitamindmiracle.html>

The Miracle of Vitamin D by By Krispin Sullivan, CN on Weston Price Web Site.

(28) <http://app2.capitalreach.com/esp1204/servlet/tc?>

[cn=asbmr&c=10169&s=20343&e=6950](#)

Webcasts : Contemporary Diagnosis and Treatment of Vitamin D-Related Disorders, American Society for Bone and Mineral Disorders.

(29) <http://www.ncbi.nlm.nih.gov/pubmed/2572900>

Garland CF, Comstock GW, et al. "Serum 25-hydroxyvitamin D and colon cancer: eight-year prospective study," Lancet 1989; 2(8,673): 1,176-1,178

(30) <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=151071>
<http://jn.nutrition.org/cgi/content/abstract/130/11/2648>

Regulation of renin expression and blood pressure by vitamin D3 Curt D. Sigmund, J Clin Invest. 2002 July 15; 110(2): 155-156.

(31) <http://www.ncbi.nlm.nih.gov/pubmed/11705562>

Intake of vitamin D and risk of type 1 diabetes: a birth-cohort study. Lancet 2001; 358(9,292): 1,500-1,5003. Hyponen E, Laara E, Reunanen A, Jarvelin MR, Virtanen SM.

(32) <http://www.ncbi.nlm.nih.gov/pubmed/12800453>

The effect of vitamin D3 on insulin secretion and peripheral insulin sensitivity in type 2 diabetic patients. Int J Clin Pract 2003; 57(4): 258-61. Borissova AM, Tankova T, Kirilov G, Dakovska L, Kovacheva R.

(33) <http://icem.endojournals.org/cgi/content/full/86/4/1633>

Pfeifer M et al. "Effects of a short-term vitamin D3 and calcium supplementation on blood pressure and parathyroid hormone levels in elderly women." J Clin Endocrinol Metab 2001; 86: 1,633-1,637

(34) <http://www.ncbi.nlm.nih.gov/pubmed/2643969>

Lind L et al. "Reduction of blood pressure during long-term treatment with active vitamin D (alphacalcidol) is dependent on plasma renin activity and calcium status. A double-blind, placebo-controlled study." Am J Hypertens 1989; 2: 20-25

(35) <http://www.ncbi.nlm.nih.gov/pubmed/8541004>

Lind L et al. "Vitamin D is related to blood pressure and other cardiovascular risk factors in middle-aged men." Am J Hypertens 1995; 2: 20-25

(36) <http://www.ncbi.nlm.nih.gov/pubmed/10939587>

Embry AF, Snowdon LR, Vieth R. Ann Neurol. 2000 Aug;48(2):271-2. Vitamin D and seasonal fluctuations of gadolinium-enhancing magnetic resonance imaging lesions in multiple sclerosis.

(36A) <http://www.theglobeandmail.com/servlet/story/RTGAM.20070428.wxvitamin28/BNStory/specialScienceandHealth/home>

Vitamin D casts cancer prevention in new light by MARTIN MITTELSTAEDT, From Saturday's Globe and Mail, April 28, 2007

(37) <http://www.ajcn.org/cgi/content/abstract/85/6/1586>

Vitamin D and calcium supplementation reduces cancer risk: results of a randomized trial

American Journal of Clinical Nutrition, Vol. 85, No. 6, 1586-1591, June 2007 Joan M Lappe, Dianne Travers-Gustafson, K Michael Davies, Robert R Recker and Robert P Heaney.

(38) http://en.wikipedia.org/wiki/Vitamin_D

Wikipedia Vitamin D Page with Links

(39) <http://archinte.ama-assn.org/cgi/content/full/167/16/1730>

Vitamin D Supplementation and Total Mortality A Meta-analysis of Randomized Controlled Trials Philippe Autier, MD; Sara Gandini, PhD Arch Intern Med. 2007;167:1730-1737. Conclusions Intake of ordinary doses of vitamin D supplements seems to be associated with decreases in total mortality rates.

(40) www.ajcn.org/cgi/content/abstract/85/6/1586

Vitamin D and calcium supplementation reduces cancer risk: results of a randomized trial. American Journal of Clinical Nutrition, Vol. 85, No. 6, 1586-1591, June 2007 Joan M Lappe, Dianne Travers-Gustafson, K Michael Davies, Robert R Recker and Robert P Heaney.

Disclaimer: http://www.drdach.com/wst_page20.html

The information contained here written by Jeffrey Dach MD is NOT intended to diagnose or treat any existing disease or ailment, or to replace in any way the patient /physican relationship with your own personal physician. Note that all contents of this message, including any advice, suggestions, and/or recommendations has NOT been generated as part of any professional evaluation. No patient has been examined prior to making these comments; no professional fee has been charged by or paid to myself. Regarding the nutritional supplements which may be mentioned: These have not been evaluated by the FDA and are not intended to treat disease. Any comments made about nutritional supplements are of a general nature and not intended to provide personal advice. The reader should seek the advice of a trusted health care professional regarding the use, risks, benefits, indications, and contra-indications of the various nutritional supplements which may be mentioned. Regarding FDA approved pharmaceutical drugs mentioned: Any comments made about drugs are of a general nature and not intended to provide personal advice. The reader should seek the advice of a trusted health care professional regarding the use, risks, benefits, indications, and contra-indications of drugs. The reader is advised to discuss the comments on these pages with his/her personal physicians and to only act upon the advice of his/her personal physician Also note that concerning an answer which appears as an electronically posted question, I am NOT creating a physician -- patient relationship. Although identities will remain confidential as much as possible, as I can not control the media, I can not take responsibility for any breaches of confidentiality that may occur.

Jeffrey Dach MD
4700 Sheridan Suite T
Hollywood FL 33021
954-983-1443
www.jeffreydach.com
www.drdach.com
www.naturalmedicine101.com
www.truemedmd.com

link to this article:

<http://jeffreydach.com/2007/06/10/vitamin-d-deficiency--by-jeffrey-dach-md.aspx>

[Sign up for Newsletter Here](#)

[yTechnorati Profile](#)

This article may be copied or reproduced on the internet provided a link and credit is given. (c) 2007, 2008 All Rights Reserved Jeffrey Dach MD