Us Too Warriors, In 2011, I surveyed our group on Vitamin D3 Use and found the average dose of the 60 responders was 8,660 I.U. of vitamin D3/day. Of these men, 80% were above 40ng/ml of blood and 10% above 75 ng/ml to 100ng/ml. The Men below 40ng/ml used less than 3000 IU of Vitamin D3 and the men with 75 to 100ng/ml used 10,000 to 15,000 IU of Vitamin D3/day.

I think it is now wise to take LEF.org Super Vitamin K with Vitamins K2 along with the Vitamin D3 as a way to keep the calcium absorb out of the veins and into the bone. WHY to Use Vitamin K2 follows:

K2 also helps promote blood vessel elasticity by safeguarding elastin, the core protein in the muscle fibers primarily responsible for the elasticity of the arterial wall. Existing elastin is damaged and new production is inhibited by calcium deposition. (Seyama Y, Wachi H. *J Athero Thromb*)"

The following Abstract documents the low vitamin D in cancer patients and the inflammation that can grow cancer and aid metastasis as evident in the blood as higher C-reactive protein, IL-8 { a cytokine that promotes angiogeniesis = blood vessel growth to supply blood to grow the cancer which is produced by NFKb (Nuclear factor kappa beta)} in the blood of cancer patients that can be lowered by Curcumin supplementation

(I take 12 pills of Super Biocurcumin from LEF.org per day along 15,000 IU of vitamin D3 from Puritan's Pride and 3 pills of Super K from LEF.org)

This abstract below shows relation between low vitamin D in PCa patients and inflammation:

Low vitamin D status is associated with inflammation in patients with prostate cancer.

Vitamin D deficiency has been associated with increased risks of prostate cancer. Nevertheless, the mechanisms remain unclear. The aim of this study was to analyze the association among prostate cancer, vitamin D status and inflammation. Sixty patients with newly diagnosed prostate cancer and 120 age-matched controls were recruited for this study. Vitamin D status was evaluated and serum inflammatory molecules were measured. Serum 25-(OH)D was lower in patients with prostate cancer. Moreover, serum 25(OH)D was lower in patients with severe prostate cancer than patients with mild and moderate prostate cancer. By contrast, serum C-reactive protein (CRP) and interleukin (IL)-8, two inflammatory molecules, were elevated in patients with prostate cancer. Serum 25-(OH)D was negatively correlated with serum CRP and IL-8 in patients with prostate cancer. Additional analysis showed that the percentage of vitamin D receptor positive nucleus in the prostate was reduced in patients with prostate cancer. By contrast, the percentage of nuclear factor kappa B p65-positive nucleus was elevated in patients with prostate cancer. Our results provide evidence that there is an association among prostate cancer, vitamin D deficiency and inflammatory signaling. Inflammation may be an important mediator for prostate cancer progression in patients with low vitamin D status.

[&]quot;Fortunately, one of the vitamin K2-dependent proteins, matrix Gla-protein (MGP) is the strongest inhibitor of tissue calcification presently known. MGP is produced by small muscle cells in the vasculature where – once carboxylated by vitamin K2 – it binds to and inhibits a protein called bone morphological protein-2 (BMP-2). BMP-2 causes calcium deposition in blood vessels. (Kaneki M, Takayuki H, et al., *Nutrition* 2006; Demer LL, Tintut Y et al, *Curr Opin Nephrol Hypertens* 2002)

Oncotarget. 2017 Mar 28 [Epub]

Dong-Dong Xie, Yuan-Hua Chen, Shen Xu, Cheng Zhang, Da-Ming Wang, Hua Wang, Lei Chen, Zhi-Hui Zhang, Mi-Zhen Xia, De-Xiang Xu, De-Xin Yu

Department of Urology, Second Affiliated Hospital, Anhui Medical University, Hefei 230022, China., Department of Histology and Embryology, Anhui Medical University, Hefei 230032, China., Department of Toxicology, Anhui Medical University, Hefei 230032, China., Life Science College, Anhui Medical University, Hefei 230032, China.

PubMed http://www.ncbi.nlm.nih.gov/pubmed/28423553

The following paper describes vitamin D3 supplementation and safety of the resultant blood levels in about 4 thousand people studied in the "grass roots" Website.

How Much is Too Much Vitamin D

How to debunk articles stating "too much vitamin D" causes serious health problems

Evaluation of vitamin D3 intakes up to 15,000 international units/day and serum 25-hydroxyvitamin D concentrations up to 300 nmol/L on calcium metabolism in a community setting

S.M. Kimball, N. Mirhosseini & M.F. Holick Dermato-Endocrinology April 13, 2017 Read Paper

This recently published paper seems to have been released at just the right time, when many news outlets are purporting the misuses of "over testing" and too much vitamin D "popping."

Is 15,000 IU/day too much?

According to the 2010 standards set by the Institute of Medicine, the safe tolerable upper intake level (UL) is 4,000 IU/day. In 2011 the Endocrine Society



recommended 10,000 IU/day as the tolerable upper limit. In the introduction to this study it says that an adult in a bathing suit exposed to sunlight for a length of time to cause a slight pinkness in the skin 24 hours later is equivalent to 15,000 IU. Having this amount of sun exposure would be similar to our ancestral level, or the amount of vitamin D nature intended us to get on a daily basis.

This study set out to determine the effect(s) of supplementation with vitamin D at doses between 1,000 - 15,000 IU/day; to see not only what vitamin D levels were achieved, but more importantly, whether there were any adverse effects, any overdose symptoms, in people taking up to 15,000 IU/day.

Who participated in the study?

3,882 people who enrolled in a wellness program between 2012 and 2015 were included in the study. The mean age was 59, with 60% women. The distribution of Body



Mass Index (BMI) of participants was 36% in the normal range, 37% overweight, and 28% obese. At the time of enrollment, participants reported taking an average of just over 2100 IU vitamin D / day and their average serum level was 87 nmol/L (35 ng/ml).

A goal of this program was to achieve a minimum 25(OH)D concentration of 100 nmol/L (40 ng/ml).

How did the study work?

Researchers used anonymized data from a wellness program in Canada. The program focuses on disease prevention and gives advice on lifestyle, nutrition, and supplements, and encourages achieving a 25(OH)D level of at least 100







vitamin D promoting technology

Buy 2 get 1 Free in April with coupon code B2G1FREE

Shop Now





 $\begin{array}{c} Free \ Shipping \\ \text{in the US in April with coupon} \\ \text{code} \\ \text{GRHealth} \end{array}$

Shop Now

nmol/L (40 ng/ml). They start with a blood test for each individual and create an individualized treatment plan including supplements based on the outcome of that initial blood test.

What did the researchers find?

None of the participants showed any signs of toxicity. Hypercalcemia and hypercalciuria were not related to higher vitamin D levels or higher vitamin D doses. Hypercalcemia was present in 1.2% of participants upon entry and 1.3% at follow-up. Each new case of elevated calcium, 20 in all, was investigated for cause and is described in detail in the paper. They took measurements for calcium, PTH, 25(OH)D, and biochemical markers for both kidney and liver function for many of the participants so they could best explore adverse conditions.

The most reliable marker for problems with calcium is serum PTH. This study found that there was no significant reduction in PTH levels in participants with the highest intakes of vitamin D or the highest vitamin D levels. It would be wise, instead of cautioning all doctors about the dangers of hypercalcemia, to instead train doctors on the value of PTH measurement and what it means to calcium homeostasis.

The researchers found that it required, on average, 6000 IU/day to achieve a vitamin D level of 100 nmol/L (40 ng/ml) for someone with a normal BMI, 7000 IU/day if overweight and 8000 IU/day if obese. At the end of the study the average serum level for all participants was 126 nmol/L (51 ng/ml).

This study did not assess disease or other factors, it was about safety. With almost 4000 participants it did show that vitamin D levels up to 300 nmol/L (120 ng/ml), as well as vitamin D intakes of up to 15,000 IU/day, are safe.



What can you do, now armed with this information?





10% off in April with coupon code GRHApr10

Shop now



GrassrootsHealth recommends vitamin D levels within 40-60 ng/ml (100-150 nmol/L)

48 international scientists agree! View our call to action.

This is one study demonstrating that vitamin D is indeed safe over a wide range of dosages. There are others, but if you search pubmed for papers on vitamin D overdose cases you will find very few.

Stick to recommending that people start by testing their current vitamin D level, and then using supplements or sun to achieve a minimum of 40 ng/ml. This paper arms that person with some data - that they will most likely need between 6,000 - 8,000 IU / day to get there. It also arms them with information for their doctor, when their doctor tells them to reduce their vitamin D intake, or that too much vitamin D could be dangerous.



Confused?

What is the difference between nmol/L and ng/ml

Use our serum level converter

All the Best, Peter

Peter Moon Ph D Prof. Emeritus VCU Biomaterials Laboratory VCU Dept of General Practice pcmoon@vcu.edu