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The Darker Side of <u>Supplementing</u> **Vitamin D**

(A Cause of Disease More Than a Cure!)

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Like most people, I used to be a big believer in the benefits of supplementing Vitamin D... that is until I became heavily involved in nutritional research and subsequently began seeing first hand in clinical practice just how dangerous this "fad supplement" really is. Like I had been, most of us have been conditioned to believe, through what our doctors, nutritionists, and infinite online articles tell us, that supplementing Vitamin D is really important, especially as it's the "sun vitamin", and it's hyped in health and medical articles as being a cure for almost everything under the sun. This blind conditioning runs so deep that most people roll their eyes if one dares to suggest otherwise...just as you might be doing at this very moment. To be clear, Vitamin D itself absolutely has health benefits, we all need it, this is not the issue, and there is plenty of literature and research that supports the importance of Vitamin D. Before someone reading this assumes otherwise, Vitamin D itself is important optimizing your Vitamin D level has many benefits, including providing immune support. The issue though is in thinking that taking it in pill form (in the way it's widely promoted) is a safe way to raise our levels, and without consequences, especially long term at higher doses. This brings up a dark and dangerous side to Vitamin D that very few talk about or even remotely understand, and it needs to be brought to light. Part of the reason it's not talked about is that very few differentiate between sunlight Vitamin D and pill-form Vitamin D; they simply and erroneously assume they are equal. Nor are people educated on the interrelationship between vitamins and minerals. This mineral interrelationship is almost all but completely ignored in medical school, yet is at the very foundation of our health. When one comes to understand the effect that excess Vitamin D in supplementation form has on long term health and the body's mineral system (as this article explains), we then begin to see its more dangerous side. The truth is, the recent herd mentality fad of blindly pushing and supplementing Vitamin D pills is putting millions of people at high risk for everything from weight gain and heart attack to decreased energy and even depression. Chances are, if you're popping vitamin D pills, while it may help in the short-term, long-term it may be putting your health at risk.

"Healthy people have been popping these pills, but they should not continue taking vitamin D supplements unchecked. At a certain point, more vitamin D no longer confers any survival benefit, so taking these expensive supplements is at best a waste of money."

~Muhammad Amer, M.D., M.H.S (lead researcher at John Hopkins)

First it's important to understand that the Vitamin D we get from the sun (which is in a sulfate form) affects the body differently from isolated synthetic oral Vitamin D supplementation. What I'll be referring to in this article is oral Vitamin supplementation...which really, isn't even а vitamin, immunosuppressive steroid[1]! When we're exposed to the sun (UVB), the skin synthesizes Vitamin D sulfate. This sulfate form is water soluble, is able to travel freely in the blood stream, strengthens the immune system, protects against cardiovascular disease, helps against depression, assists with detoxification, and nourishes the brain. Sunshine Vitamin D therefore really is healthy for us, as long as we maintain intelligent exposure. The supplement form of Vitamin D3 however is un-sulfated, not water soluble, and requires LDL ('bad cholesterol') to be transported. The un-sulfated supplement form does not offer the same benefits as the sulfate form, although the supplement form is great at transporting calcium through the body which the sunshine form doesn't do - at least, not initially. The sulfated form, after offering it's other benefits in the body, 'drops' the sulfate and then, in it's newly un-sulfated form, is able to assist with calcium and bone health. So basically the sunshine version offers the best of both worlds, whereas the supplement version misses out on a lot of the benefits...and...as you'll learn in this article, comes with dangerous Specifically, supplementing Vitamin D directly lowers consequences. Potassium and Vitamin A levels, lowers Magnesium, and raises Calcium **levels.** Let's look at the implications of this.

The balance between Calcium and Potassium affects thyroid performance. The higher this ratio, the slower the thyroid (or effect thereof). As calcium rises and potassium drops, the Ca/K ratio increases. This impairs cellular sensitization to thyroid hormone while also impairing cell permeability of hormones and nutrients, leading to a **slowing effect of the thyroid**, and potentially, **weight gain!** Another consequence of low Potassium as a result of Vitamin D supplementation is a higher Sodium to Potassium ratio. As the Na/K ratio increases, inflammation and the stress response increase. As one's **stress increases**, Magnesium, drops. In other words, taking excess Vitamin D leads to magnesium depletion. Magnesium is also used up in the conversion of Vitamin D into its active form...again the more Vitamin D a person is popping, the more

they're depleting their magnesium stores. Magnesium deficiency in turn leads to increased risk for **heart attack**, especially in the face of high stress and a high Calcium level (which Vitamin D also contributes to). The lowered Magnesium also contributes to **diabetes** (as Magnesium helps regulate insulin). The consequences of high calcium relative to low magnesium also lead not only to **psychological concerns** and heightened **anxiety**, but also **unstable blood sugar** levels and craving of all kinds (including various addictions). The irony is **magnesium is needed to activate and raise Vitamin D**, and considering that most of the population is deficient in magnesium, so much of this Vitamin D we're being told to supplement remains inactive. Plus, by taking all this vitamin D in supplement form we're only lowering magnesium further and actually impairing the goal of raising Vitamin D! If you really want to raise your body's natural vitamin D level, work on boosting your magnesium - it's a key cofactor required to bind Vitamin D to its transport protein.

Vitamin A is necessary to decrease **inflammation**. However Vitamin D lowers Vitamin A (both in the liver and in the blood). Vitamin A deficiency in turn impairs iron utilization and transport, and it's well known that Vitamin A deficiency is a cause of **iron anemia**[3]. Taking synthetic Vitamin D, which lowers Vitamin A, therefore contributes to this anemia. Even more dangerously, both Magnesium and Potassium are necessary for the body's anti-inflammatory response, and yet, as we've already looked at, Vitamin D lowers both these essential minerals. Without the necessary anti-inflammatory response, a host of disease processes arise, and arteries also become damaged. Calcium and cholesterol then get drawn to these sites of arterial damage and plague builds up, leading to atherosclerosis (hardening of the arteries). This is why it's also so important to be taking Vitamin K2 when you're supplementing Vitamin D, since K2 helps keep calcium in bone where it needs to be. Countless people are led to believe that they can simply supplement Vitamin D alone, even told to do so by their doctors. They are rarely if ever taught about the increased importance of addressing magnesium, potassium, Vitamins A and K2, etc when supplementing D! key! Too much vitamin D by itself is not only toxic, but also contributes to soft tissue calcification...especially when taken without enough Vitamin A and K2. It is those other two nutrients that must also be taken with Vitamin D to avert the affect of tissue calcification. This is almost always ignored when people are just told to "take Vitamin D", yet the masses continue to do so because this education is not being provided. Furthermore, Vitamin A (true Vitamin A in retinol form) is necessary for the binding of copper onto the protein ceruloplasmin which makes copper bio-available (and in turn supports iron). Unfortunately, Vitamin D lowers Vitamin A which lowers ceruloplasmin which then contributes to copper bio-UNavailability. This in turn leads to many of the negative side effects associated with copper imbalance, while also raising bio-unavailable calcium - weakening the bone matrix and contributing to a higher risk of **osteoporosis**. Yes, contrary to the lies we're told by Vitamin D proponents, too much Vitamin D at best has a negligible effect on bone density or, as has also been shown, may actually *increase* the risk of bone loss and osteoporosis, not to mention increase the risk of **kidney stones**[1]!

"Until now we haven't worried about giving people extra vitamin D
because we thought

"it might help anyway and of course (as it's a vitamin) doesn't do you any harm".

With our increasing knowledge, we should now know better....One 2015 randomised study of 409 elderly people in Finland suggested that vitamin D failed to offer any benefits compared to placebo or exercise - and that fracture rates were, in fact, slightly higher.....One study involving

over 2,000 elderly Australians, which was largely ignored at the time, and the one just published

found that patients given high doses of vitamin D or those on lower doses that increased

vitamin D blood levels within the optimal range (as defined by bone specialists) had

a 20-30% increased rate of fractures and falls compared to those on low doses or who failed

to reach "optimal blood levels". " ~ Tim Spector, Prof of Genetic Epidemiology [2]

Returning to the issue of soft tissue calcification, the Merck Veterinary Manual says the following about Cholecalciferol (which is essentially Vitamin D, used as a rat poison)... "Cholecalciferol produces hypercalcemia, which results in systemic calcification of soft tissue, leading to renal failure, cardiac abnormalities, hypertension, CNS depression, and GI upset." Sure, this is relating to effects in rodents, but it still conveys nonetheless how too much vitamin D leads to calcification, and the dangers therein.

Why then do some people feel good when taking Vitamin D pills? For one thing, the effect is usually a short term benefit at the expense of detrimental effects longer term. For some people, taking Vitamin D supplementation is beneficial typically the fast metabolizer with high potassium. This however can only be determined by first understanding your unique mineral levels as shown through a Hair Tissue Mineral Analysis (HTMA). Blood testing for this purpose is highly inadequate as blood serum levels can fluctuate day to day and do not accurately represent stored tissue mineral levels. Through HTMA testing we can see if a person is a fast metabolizer (as defined when the Calcium to Phosphorus ratio is below 2.6 and with lower calcium relative to sodium and potassium) or a slow metabolizer (when the Ca/P ratio is above 2.6 and with higher calcium relative to lower sodium and potassium). Over 80% of the population are slow metabolizers, and for these people, who generally already have higher of calcium and lower levels of potassium, Vitamin levels supplementation can have very adverse affects, especially when they're ignoring Vitamins A and K and minerals such as magnesium and potassium. Fast metabolizers may benefit more from Vitamin supplementation as it can help bring better balance to their mineral pattern. Vitamin D supplementation is also safer, of course, for those who are consuming adequate Vitamin A as well as K2, potassium and magnesium.

One other key point to consider though when people say they 'feel good' taking Vitamin D is the supplement's immunosuppressive effect:

"As the immune system becomes increasingly inhibited, fewer L-form bacteria are killed. Furthermore, the Vitamin D Receptor is no longer able to transcribe the antimicrobial peptides, and fewer bacteria are

killed by DNA fragmentation. As fewer bacteria die, fewer inflammatory cytokines are released, and fewer toxins and cellular debris enter the bloodstream. As the level of inflammation temporarily decreases, a patient will start to feel better....

...Naturally, such patients feel that the extra vitamin D is helpful. It may take decades before their L-form bacterial load rises to the threshold at which they are diagnosed with an autoimmune illness, or have a stroke or heart attack. At this point later in life, they seldom make the connection between their current illness and the extra vitamin D they have been taking with no apparent ill effect for such a long period of time." ~Amy Proal, PhD

What about those serum tests that show almost everyone being deficient in Vitamin D (chances are quite good that your doctor has told you that you are low in Vitamin D)? One problem is that typical testing (along with many studies for that matter) most often tests Vitamin D in the form of 25(OH)D (the storage form of D) and this usually tests low. However there is also the active (calcitriol) form (1,25(OH)2 D3) - very few doctors ever test for this. If doctors test both forms as opposed to just one they would see that Vitamin D deficiency may be less extreme than what it appears to be. If your doctor is telling you that you're low in Vitamin D, demand that s/he first test BOTH the storage and active forms to give you a truer picture. Added to this, most people will still be deemed Vitamin D insufficient when their results come back between 21-29 ng/mL even though those levels have traditionally been a normal and healthy level. The National Academy of Medicine for example, (formerly the Institute of Medicine), states that 97.5% of people with 25(OH)D levels >20 ng/mL have adequate vitamin D for bone health, yet many prescribing physicians tell their patients with such levels that they are 'deficient', and push the notion that more supplementation is needed. Indeed, too much Vitamin D is just as dangerous as too little, and as this article explains, "adequate vitamin D prevents heart disease, but too much vitamin D promotes heart disease. The available evidence suggests that the lowest risk of heart disease occurs when vitamin D status is between 20 and 40 ng/mL." [4] It's only due to what could be considered misinterpretation of a few studies in the early 2000s, together with a report by the Endocrine Society in 2011

(overseen by a medical doctor renowned for his pushing of Vitamin D), that then led the public and medical community alike to believe we are all suddenly now insufficient at those levels. Such a message was a monetary windfall for testing labs, with Vitamin D testing now being the 5th most common lab test covered by Medicare. In fact, between 2007 to 2016, the increase in doctor-ordered lab testing of Vitamin D for Medicare patients has increased 547%! Yet, popping back all this extra D without further inquiry, rather than fixing a supposed condition of insufficiency, is instead today opening the door to a much wider range of health conditions! There is even 'a wealth of evidence supporting the hypothesis that significant consumption of oral Vitamin D among the young is a risk factor for inducing celiac disease' [5].

"The definition of Vitamin D deficiency needs re-evaluation in view of the fact that low 25(OH)D is found in both healthy and sick individuals... It is reasoned that if low 25(OH)D indicates a current or potential disease state, then increasing 25(OH)D by supplementing with vitamin D should provide some symptom relief and/or protection. So far, there is scant evidence for this hypothesis... Despite the recent increase in vitamin D supplementation, chronic diseases have increased & are expected to continue increasing." [6]

"Taking extra calcium and/or vitamin D without an understanding of how they are interrelated with other vital nutrient minerals can start a cascade of adverse changes in the nutrient mineral system.

Unfortunately, for countless numbers of people, their medical doctors lack this essential information and understanding of dynamic scientific nutrition."

~Dr. Rick Malter, Ph.D.

It is both shocking and disheartening the number of physicians (and even nutritionists) that are telling their patients to boost their Vitamin D levels based on (a) not testing both active and storage forms, (b) telling patients they are insufficient when indeed they may not be, (c) not assessing the other cofactors (such as magnesium) necessary to maintain an adequate D level, (d) suggesting

dosages ranging from 5000iu to 50,000iu, and (e) not considering or educating on the increased need for Vitamin K2, Vitamin A, Potassium and Magnesium when supplementing such high doses! In most instances when a client comes to me showing rock bottom potassium in their HTMA, sure enough they have been supplementing with high dose Vitamin D, completely uninformed of the damage it's been causing. Furthermore, a deficiency of the mineral boron can also accentuate a Vitamin D deficiency, and so boron may be supportive to people with low Vitamin D who live in areas of low sunlight in winter. Please, before you waste money on synthetic Vitamin D (or any other vitamin or mineral supplement for that matter), it's so important that you first understand the risks of supplementing Vitamin D (and other nutrients) in terms of how they affect your mineral ratios and the health of your body. As we've seen, even something as "popular" as a Vitamin D pill can have very serious consequences on health when done improperly. Unfortunately, until HTMA is more widely adopted by mainstream health, these effects will largely go hidden and denied and doctors and nutritionists alike will continue to tout Vitamin D supplementation as a cureall for everything.

"Studies which incorrectly interpret the reason for low vitamin D in patients with chronic disease have been seized upon by the media, and form the basis of massive advertising campaigns – which, along with ill-informed recommendations by doctors and researchers, have created a perfect storm of misunderstanding and bad advice."

~Amy Proal, Ph.D.

The benefits of taking vitamin D are usually short term, and most studies only track this short-term period. This is why many 'experts' continue to promote the benefits of taking more vitamin D, not connecting the dots to the negative longer term biochemical effects.

"One of the abiding weaknesses of studies on the effects of vitamin D on health is that researchers simply do not follow subjects consuming the secosteroid for a sufficient period of time. Instead, they tend to track subjects over the course of weeks, months, or one or two years, during the period of time when study participants are usually feeling the

palliative effects of the steroid. This practice is a mistake as it does not account for the long-term immunosuppressive effects."[7]

If you're concerned about your Vitamin D levels and want to raise it in a safe way, there are natural ways to do this which are far safer than taking synthetic supplementation. **First and foremost, check your magnesium level!!** You can pop all the Vitamin D in the world, but without adequate magnesium you will still have trouble raising your D levels. This is even more true when we consider that most of the Western world is over-calcified, and as a natural feedback loop the body attempts to lower Vitamin D as a result (to prevent calcium from going higher). As Dr. Jack Kruse explains:

"It is physiologically impossible to have a 25(OH) blood test ("Storage-D") to be less than 35 ng/dl and a Magnesium RBC level to be above 6.5mg/dL because of the negative feedback tied to calcium levels."

Taking isolated Vitamin D pills therefore is not the answer, as it only compounds the calcification issue, which then further depletes magnesium, and in turn promotes the body's need to suppress Vitamin D. In other words, if you truly are Vitamin D deficient, chances are fairly good that it's because you are deficient in magnesium and/or over-calcified! Due to our over-calcified 'epidemic' on the other hand, Vitamin K2 is very supportive not only in assisting proper calcium absorption, but also in the proper utilization of Vitamin D while also protecting against toxicity. Safe sun exposure is an excellent way to naturally raise D, though we should also include a dietary focus, still being cautious though of the lowering effect too much 'vitamin' D will have on potassium and other nutrients. That said, some of the best dietary sources of Vitamin D include:

- cod liver oil...this is a particularly excellent source of Vitamin D because it is also paired with Vitamin A.
- fish specifically salmon, sardines, herring, mackerel
- fish roe
- eggs 1 egg contains roughly 10% DV
- shiitake and button mushrooms though a poorer source and ONLY if they have been grown in sunlight

 other sources include grass-fed butterfat and organ meats, cheese, and bone broth

Still scratching your head that the answer to raising your Vitamin D level could lay with magnesium. Consider the following:

"Hypomagnesemia impairs secretion of PTH and renders target organs refractory to PTH. Reduced secretion of PTH or impaired peripheral response to the hormone leads to low serum concentrations of 25(OH)D3. In addition, the hydroxylase enzyme 25-hydroxycholecalciferol-1-hydroxylase, which is responsible for production of the most active, hormonal form of vitamin D, calcitriol, requires magnesium as its cofactor. Consequently magnesium deficiency impairs calcitriol production." [8]

Or, from this study [9]:

"Intake of magnesium significantly interacted with intake of vitamin D in relation to risk of both vitamin D deficiency and insufficiency... findings indicate it is possible that magnesium intake alone or its interaction with vitamin D intake may contribute to vitamin D status."

Everyday, the public gets more and more misled by media and articles written by people who have little understanding of the molecular effect of Vitamin D and its cascade of effects on a person's mineral profile; or by biased studies or (surely well-meaning) doctors who simply just don't know any different. We really have to start by asking if any of those who push Vitamin D supplementation and the importance of optimizing levels have ever bothered to look at a person's magnesium level first? Have they ever considered that many of the health effects of low Vitamin D may actually be a reflection of magnesium deficiency? Have they considered that low 'Vitamin' D may actually be an effect of illness or imbalance rather than a cause, and that additional supplementation may more so 'cause' than 'cure'. Very few people are standing up to write about this side of the story, and it is time that more

people come to understand (and take interest in) the effects of that which they put into their bodies, sold to them as 'healthy', but which may potentially be doing more harm than good.

"Vitamin D is far more often a cause, and not a cure for disease. And that discrepancy makes a world of difference. It is the difference between advising the public to supplement with vitamin D and telling people to avoid supplementation at all costs. It is the difference between preventing a disease and speeding its progression, the difference between fighting an epidemic of chronic disease, and watching more and more people fall ill every day. And it's a change that needs to happen right now."

~Amy Proal, Ph.D.

This article merely scratches the surface and is meant as a primer to provide basic insight into Vitamin D's effect on one's mineral profile, and to start questioning the messages we are fed. For those who either question this information or desire to learn more at a molecular biology level, the links below will help, along with this excellently researched and supported

paper: http://www.medicinabiomolecular.com.br/biblioteca/pdfs/Biomolecular/mb-0439.pdf

Update April 15, 2017

This recent New York Times article provides an excellent explanation to some of the things mentioned above, including the history of how a few studies were able to dupe the public into believing this notion that everyone needs to supplement more Vitamin D.

<u>Update April, 18, 2018</u>

This Medscape article has just come out warning people (and prescribing physicians) of the dangers of excess Vitamin D. Meanwhile this study in the Journal of the American Osteopathic Association as well as this review have just come out that further explain the importance of magnesium for Vitamin D metabolism and usefulness. I've no doubt that in the years ahead, more and more 'news' stories will appear touting 'new evidence' suggesting

Vitamin D supplementation may be harmful. The evidence however is not new. **A handful of us have been teaching these warnings for years.** It does seem though, slowly but surely, more and more people are waking up to this message that Vitamin D supplements can, in fact, be harmful.

[1] http://www.medicinabiomolecular.com.br/biblioteca/pdfs/Biomolecular/mb-0439.pdf

[2] https://www.sciencealert.com/vitamin-d-tablets-may-be-worse-for-you-then-nothing-at-all

[3] http://pdf.usaid.gov/pdf_docs/Pnacr902.pdf [https://books.google.ca/books/download/Vitamin_A_Deficiency.bibtex?

id=d0Dl1WHixv8C&output=bibtex]

[4] https://www.westonaprice.org/health-topics/beyond-cholesterol/

[5] https://www.hoajonline.com/allergyasthma/2054-9873/2/2

[6] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4160567/

[7] https://mpkb.org/home/pathogenesis/vitamind#fn_2

[8] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4712861/

[9] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3765911/

http://nutritionalbalancing.org/center/htma/science/articles/vitamin-d.php

http://bacteriality.com/2009/08/iom/

http://www.traceelements.com/Docs/News Jan-April 2008.pdf

http://naturopathconnect.com/articles/magnesium-calcium-potassium-vitamin-d-kerri-knox/

http://www.precisionnutrition.com/stop-vitamin-d

http://www.reuters.com/article/us-health-vitamind-supplements-idUSKBN19B2F0

http://theconversation.com/the-sun-goes-down-on-vitamin-d-why-i-changed-my-mind-about-this-celebrated-supplement-52725

http://jaoa.org/article.aspx?articleid=2673882

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