

Anti-Nutrition Fallacies and Inconsistencies in Politics and Medicine in the Era of Pandemic Vitamin D3 Deficiency and Nutri-Immunosuppression

Alex Vasquez DO DC ND (USA) FACN

Personal observations

In observing so-called medical authorities and online pharmaceutical skills, I have been amazed but perhaps not surprised at the intellectual investment and semi-artistic dexterity applied to 1) denying the essentiality of nutrients to sustain life, 2) denigrating their clinical benefits, and 3) pretending that a robust research base in nutritional pharmacology does not exist. An entire array of "medical interventions" may be employed based on evidence-less tradition and "common sense" (per Fauci in his 2021 advocacy of double facemasking) but these people resort to slide-rules and electron microscopes when analyzing any suggestion that nutrients are essential for life.

Anti-Vitamin D Fallacies and Inconsistencies in Politics and Medicine

1. "The lab tests are not accurate" (triple) fallacy

- a. **Why this is a fallacy:** This argument presumes/advocates the idea that lab tests are necessary prior to intervention. A laboratory test is not necessary to employ a safe and effective intervention; more specifically, if we're talking about using between 2000-10,000 IU then that's the equivalent of five or 15 minutes of sunbathing, for which no laboratory test has ever been needed prior to use; *safety proven annually in hundreds of millions of persons internationally of all ages and health conditions.*
- b. **Why this is a ridiculous fallacy:** Hundreds/thousands of studies have been performed and peer-reviewed internationally using this as the standard reference measurement of vitamin D status. The vast majority of these studies have reported results that are among the most consistent results ever reported in biomedicine. So, the argument that all these lab tests are inaccurate *but just happened to find the same result internationally for decades* is ludicrous.
- c. **Selectivity/medical hypocrisy: The vast majority of prescriptive pharmaceutical/medical drugs are prescribed in a "willy-nilly manner"** (according to Harvard Medical School Professor Dr. Jerry Avorn America the Medicated. cbsnews.com/stories/2005/04/21/health/main689997.shtml) **and certainly without specific laboratory testing.** For example, ❶ **beta-blockers** are prescribed based on **clinical presentation without laboratory testing** (eg, hypertension, anxiety, headache) and "dosed to effect"; same with so-called ❷ **antidepressant drugs** which are sold for billions of dollars every year. ❸ **Nonsteroidal anti-inflammatory drugs** are prescribed without laboratory testing in the vast majority of cases and are also available over-the-counter; these drugs **kill and injure hundreds of thousands of people per year** but somehow *pharmaceutical injury and death* is acceptable but any microscopic risk from vitamins requires an expert panel to recommend avoidance pending further research, which they generally refuse to either fund, perform, or read. ❹ Tons of **antibiotics** are prescribed every year based on clinical presentation and not on any laboratory testing.

2. The "we get all of our nutrients from a healthy diet" (quintuple) fallacy

- a. First of all, **no common foods have vitamin D in sufficient amounts** to sustain adequate nutrition. The closest is animal liver or the famous cod liver oil, neither of which are consumed by the majority of people on a regular basis sufficient to maintain nutritional status.
- b. Secondly, the **adult requirement for vitamin D is approximately 4000 international units per day** which is impossible to attain through a so-called normal diet.

- c. Thirdly, the majority of the diet for most Americans is ultra-processed foods which are famously deficient in nutrients and which also famously trigger a systemic inflammatory response which would be expected to deplete vitamin D levels over the long-term.
- d. Fourth, typically the people who make statements such as this and who are being quoted are thus by definition of higher social-economic status and thus have more knowledge and more financial means and more time to consume a healthy diet. So while they may be speaking for themselves and for their socioeconomic class, they are certainly not speaking for the majority of the population which is almost certainly poorer, less educated, and with less/fewer logistical resources to procure and prepare a so-called healthy diet. Regardless, a diversified organic wild greens salad with feta cheese and organic olive oil and the clichéd walnuts and cherries is still not going to provide sufficient vitamin D.
- e. Fifth and finally here, patients with health problems are by definition not in the "normal healthy population" and furthermore they have different metabolic needs than do healthy patients who are free from disease. So the patient population cannot on any level be equated with a normal healthy population. In other words to make this more obvious: what works for the general population may not and probably doesn't work in and for many patients. Furthermore, systemic inflammation characterizes nearly all clinical diseases and leads to catabolism of vitamin D therefore increasing the probability and consequences of vitamin D deficiency.

3. The "our patients suffer from obesity and not deficiency of nutrients" fallacy

- a. Let's start by addressing this fallacy with the "calories in, calories out" model of overweight and obesity which has certainly been prominent throughout most of dietetics in medicine and which can certainly be couched or modified these days but of course which still holds some weight, no pun intended. The fastest way to make anyone gain weight is to feed them in excess of calories in the form of carbohydrates and fats (especially in combination) and to force them to be physically inactive. Neither excess sugar intake nor excess fat intake nor physical inactivity has any direct/effective relevance to vitamin D status. Quite obviously people can become overweight and eventually obese regardless of their vitamin D status, using this model.
- b. Numerous investigations and publications have documented that obese and overweight persons are more likely to be vitamin D deficient; so rather than protecting or serving as a surrogate marker against the probability of vitamin D deficiency, overweight and obesity correlate with higher probability of vitamin D deficiency. This is probably a result of different factors including systemic inflammation which could catabolize vitamin D, poor diet and lifestyle choices which correlate also with lower income and thus less access to better healthcare which includes advice on nutritional supplementation, and the most direct factor which is that adipose tissue serves as a sponge/reservoir for vitamin D and therefore lowers serum 25ohD.
- c. Vitamin D deficiency clearly causes people to have higher rates of depression/neuroinflammation which typically correlates with weight gain and unhealthy/excessive eating.
- d. Vitamin D deficiency causes systemic inflammation which promotes insulin resistance and weight gain while also causing gastrointestinal dysbiosis which is now known to correlate directly with weight gain.
- e. We know that patients with iron deficiency suffer from a neuropsychiatric condition called "pica" characterized by consumption of non-nutritious items such as paint and dirt. Back in 2009 I published the proposal that nutritional deficiency promotes overconsumption via "junk food pica."

4. The "nutrition is not supported by science and does not meet medical rigor" fallacy

- a. **Non sequitur; Principal of identity;** a scientific field is a scientific field and in its entirety cannot be unscientific: Nutrition is one of the biomedical sciences, also called health sciences. So anyone who suggests that Nutrition as an entire scientific discipline is not supported by science is perpetuating the identity fallacy, in this case by stating that science isn't science. Nutrition is basically an extension/combination of Biochemistry, Pharmacology, and Physiology.
- b. **Fallacy of incredulity:** When people don't understand or do not want to accept data, they are likely to state that it doesn't exist or isn't true. The situation we have right now is that we have multiple generations of politicians, reporters and medical doctors who do not understand Nutrition and therefore they conclude erroneously that nutrition cannot be understood and therefore that it is unscientific.

- c. **Projection—failure of understanding, performance, interpretation:** If you want to study Nutrition scientifically then study it scientifically, but don't design garbage research based on ignorance and then state that the entire field of science is at fault: Nutrition is an entire scientific discipline that focuses primarily on the pharmacokinetics, pharmacodynamics, and synergism of nutrients. As such, it can commonly be studied in the exact same manners as those employed for drug studies. Of course, a few caveats exist with regard to pharmacokinetics, pharmacodynamics, and synergism that have to be properly considered and accounted for in the design of clinical trials; but ignorance of those details and the resulting sloppy research does not negate the benefits of nutritional therapy nor suggest that the entire field is unscientific or corrupt. What it mostly means is that the people conducting the research didn't have any idea what they were doing and so they made fools out of themselves but then projected those errors onto the field of study itself. All of this also holds true for the evaluation of published research. This also applies to powerful organizations that could fund and publish Nutrition research but fail to do so because perpetuating ignorance serves their interests, such as the direct/indirect promotion of drug sales.
- d. **Authority/genetic/origin fallacy:** Formal fallacy

5. The "we can't afford it" fallacy

- a. **Vitamin D3 cost: 4 cents per 2,000 IU serving**, retail price, no bulk discount
- i. 10,000 IU for 10 days = 100,000 IU = total price USD\$2, ~EUR€1.64; To give 2,000 IU for 30 days would cost USD\$1.20, ~EUR€0.99. To give 2,000 IU for 90 days would cost USD\$3.60, ~EUR€2.97
- b. **To give 2,000 IU for 360 days would cost USD\$14.40, ~EUR€11.88 pp retail**
- i. Risk: 0, e.g., Probably more risk walking to the mailbox than from the treatment
 - ii. If you can afford to destroy the international economy, If you can afford to cancel school and university classes for millions of students, If you can afford to collapse the entire lower and middle classes of society in multiple countries, If you can destroy millions of small businesses and the people who made them in the families that depend on them, then don't tell me you can't afford preventing all of that chaos and heartache and interruption and criminal behavior because you didn't want to spend USD\$14 or EUR€11.
- c. The real problem isn't that we can't spend money to improve health via nutrition, the real problem is that the powerful forces that dominate politics and global economies make more money from drug medicine than from disease prevention. **So long as powerful political people, the entire medical profession internationally, and hospitals and "healthcare services" make more money from illness than from health then the political economy will always favor fearmongering, disease profiteering and disaster capitalism**, aka drug sales/mandates and nutrition denialism.

6. The "if a patient does not have rickets then they do not have vitamin D deficiency" fallacy

- a. Similar to: "if a patient does not have anemia then they do not have B12/iron deficiency" fallacy
- b. Facts about rickets: Rickets is not seen in adults. Rickets is the manifestation of severe vitamin D deficiency in infants/children whose bones/skeletons are immature and still the process of developing.
- c. Facts about osteomalacia: One of the most important manifestations of more severe vitamin D deficiency in adults is osteomalacia, which translates to "softening of the bones", resulting from an **insufficiency of calcium phosphate** (Holick 2003 doi.org/10.4065/78.12.1457). This leads to **subperiosteal edema** which leads to **chronic bone pain**, typically misdiagnosed by physicians and therefore treated with pain medications instead of the appropriate treatment with vitamin D. This greatly increases the profitability of the pharmaceutical industry because instead of receiving the curative nutrient, patients are kept on analgesic drugs and opioids for decades, until they die.
- d. Adult presentation of vitamin D deficiency: ① osteomalacia, ② muscle weakness, ③ depression, ④ chronic pain, ⑤ systemic inflammation, ⑥ neuroinflammation, ⑦ gastrointestinal dysbiosis, ⑧ insulin resistance, ⑨ reduced barrier defenses and ⑩ reduced immune effectiveness against infection

7. The "nutrition studies are small and therefore unreliable because they cannot be generalized to large populations" fallacy

- a. Nutrition studies with thousands of patients up to 2 million patients:

- i. **The Lancet** 2001 Nov: In this study including more than **10,000 infants**, 2000 IU of vitamin D per day was shown to reduce the incidence of type I diabetes by 78% without any adverse effects. If any drug were ever shown in such a large study to have this level of **safety** and **effectiveness**, it would be considered the miracle of the century. But because it was nutrition, it was ignored. Further strengthening these findings were other studies similarly showing vitamin D reduced the incidence of schizophrenia and autoimmune disease.
- ii. **Biological Trace Element Research** 2018 Apr Meta-analysis: "In total, the studies included **1,983,238 subjects**, **683,075 of which were in [selenium] groups** and 1,300,163 of which were in control groups. The protection rates were over 80% in 35 studies, and the overall effect (risk ratio) was 0.14."
- b. **Nutrition studies with massive international implications**: Both of the above-mentioned studies should have changed international healthcare policy and Medical practice
- c. **Large studies manipulate the perception of effectiveness through "statistical significance" and P value<0.5**: Among the most famous observations of flawed "significance" is what we have seen in some of the Cox-2 inhibiting studies and the statin cholesterol-lowering studies where they used thousands of patients to demonstrate statistical significance which was of practically zero clinical significance

8. The "if it doesn't work like a drug then it doesn't work at all" fallacy

Drugs	Nutrients
Activity : Nearly always delivered in their active form	Many nutrients are delivered in an inactive form and have to be metabolized to become activated; this is certainly the case with vitamin D3
Cofactors : Typically ready to use solo	Metabolism requires other nutrients; for vitamin D3, magnesium is required
Monotherapy : Synergism is disregarded	Synergism is obligatory: vitamin D3 works intimately with glutathione, magnesium, vitamin A and K
Monotarget : Drugs are specifically designed for singular molecular/physiologic targets	Nutrients always have a wide range of physiologic effects; in the case of vitamin D3 it has nearly 3000 DNA-binding sites
Timing : Drug effects are typically quite rapid, commonly within 30 minutes for many drugs such as beta blockers	Vitamin D can have a rapid onset (psychiatric/neurological) effects that can occur within 48 hours via modulation of cell membrane fluidity/physiology, however typically the changes take more time due to the delay in conversion and also changes systemically in gene transcription as well as profile changes in the gut microbiome, the latter are most beneficial when combined with other nutrients such as zinc and of course a healthy diet profile
Junk food : Diet typically doesn't have a major effect on drug pharmacology (except K/anticoag.)	Diet has a massive effect on overall metabolism and nutrient synergism
ADEM : Drugs typically have a half-life of less than eight hours; Drugs typically achieve peak serum levels within two hours of oral administration	Vitamin (oh)D3 has a half-life of several weeks; vitamin D3 requires at least 3 to 5 months to reach tissue saturation at which point physiologic benefits begin
Speed : For an acute situation you would expect a drug to work within a few hours or few days if it's going to work	For an acute situation, vitamin D would not be expected to work to its full potential because of the need for conversion, tissue saturation, changes in gene expression and gut microbiome
Dosing : In clinical practice and research, drugs are always administered at a standardized dose known to provide clinical benefit with little risk	In many vitamin D studies, the researchers used inadequate doses of vitamin D3 and this is why I stated in my 2005 publication at TheLancet.com: "subphysiologic doses are subtherapeutic"—Authors and journal editors pretend to be completely ignorant about appropriate dosing
Ambiguity : Accepted; Many drugs have mechanisms that are completely/partly misunderstood	Many nutrients have more than one mechanism of action but regardless of how many mechanisms are molecularly described the ambiguity will never be accepted by mainstream medicine

9. The “If you are in favor of nutrition then you are against vaccines/drugs/surgery” fallacy

- a. At its core, this is an extension of the formal fallacy of **personal incredulity**: People who understand medicine but don't understand nutrition can't believe that someone could understand *both medicine and nutrition*
- b. This is also an extension of the formal fallacy of **false dichotomy**: False dichotomies are common in politics and throughout general society because they simplify life into black-and-white, red and blue, capitalist and socialist, freedom and communism, rich and poor, but this oversimplification comes at the cost of denying oneself a cohesive reality that embraces more than one option at a time. False dichotomies provide a false illusion of comfort and safety simply because in the short term less cerebral metabolism is required in the decision-making and task-shifting processes. Nuanced thinking requires the ability to maintain multiple perspectives in working memory while also being able to juggle and interpose those differing perspectives to see how they interact and to thereby anticipate and predict future outcomes based on the imagined interactions of conceptual inputs. This may be due to an insufficiency of intellectual bandwidth among adherents of the false dichotomous thinking.
- c. Welcome to **integrative and functional medicine**: Yes indeed, nutrition can be used alongside vaccination and drugs and surgery. In fact: it should be. These things should be mixed for optimal outcomes and greater safety: <https://www.inflammationmastery.com/medical>

10. Underdosing fallacy: the complete absurdity that 400-800 IUs per day would be adequate for an adult

- a. Certainly into the 1900s, the medical profession was completely negligent in its assumption of the proper dose of vitamin D for infants, children, and adults. The proper dose for humans was guesstimated at 400 international units because this is the amount in a 1-teaspoon serving of cod liver oil. Because it alleviated the severe deficiency, this was assumed to be the optimal dose. This is completely stupid, absurd, ignorant, and unscientific, at least by modern (eg, post Vieth 1999) standards.
- b. In 2003 Robert Heaney et al performed the first clinical trial which actually substantiated the appropriate dose for adult humans and found that amount to be 3000 to 5000 international units per day. **Any dose less than this following the date of this publication is unscientific, negligent, and probably self-serving especially to the medical profession that benefits from keeping the population deficient in this essential nutrient.**
- c. Despite the strength of this evidence, its publication in well-respected journals, and its free international availability, ignorant authors and editors continue to publish research using lesser amounts which I commented in 2005 on The Lancet.com: subphysiologic doses are subtherapeutic <https://www.academia.edu/40429791>

Document completion in progress; updates will be posted: <https://www.academia.edu/45018439>

11. The groupthink fallacy: if you don't think like we do then you're wrong
12. The "vitamin supplements are a waste of money and only give you expensive urine" fallacy
13. The "nutritional supplements cannot support physiologic processes such as immune defenses [or detoxification]" fallacy
14. The “Vitamin D2 is the same as vitamin D3” fallacy
15. “Treatment [with nutrients, vitamin D] is dangerous” fallacy
16. "We don't use dangerous treatments in medicine" fallacy
17. The "medical drugs are 100% safe and 100% effective and anything less than this such as nutritional interventions cannot be considered therapeutic or appropriate for clinical use" fallacy
18. The "if nutrition were important and legitimate then we would have studied it in medical school and so the fact that we never studied it in medical school is evidence that this entire topic is not scientific" fallacy
19. The "vitamin D is only necessary for bones and muscles and has no role in mental health, systemic health, immune function, or disease prevention" fallacy
20. The "Michael Holick MD PhD has a conflict of interest and therefore all research on vitamin D is invalid even if performed by other researchers" fallacy
21. The "nutrients function like drugs and should be tested and employed as drugs" fallacy
22. Undertreatment (time) fallacy
23. The "Big medical journals made this topic look stupid” (aka: “authoritative boolshet” [SIC]) fallacy)

Progress of this document

This document is being prepared currently, and the final version will be publicly available per the hyperlinks listed in the footnote of this page. Eventually this discussion will be provided in video format. ☒

About the author and presenter: Alex Kennerly Vasquez DO ND DC (USA), Fellow of the American College of Nutrition (FACN), Overseas Fellow of the Royal Society of Medicine: An award-winning clinician-scholar and founding Program Director of the world's first fully-accredited university-based graduate program in Human Nutrition and Functional Medicine, Dr Alex Vasquez is recognized internationally for his high intellectual and academic standards and for his expertise spanning and interconnecting many topics in medicine and nutrition. Dr Vasquez holds three doctoral degrees as a graduate of University of Western States (Doctor of Chiropractic, 1996), Bastyr University (Doctor of Naturopathic Medicine, 1999), and University of North Texas Health Science Center, Texas College of Osteopathic Medicine (Doctor of Osteopathic Medicine, 2010). Dr Vasquez has completed hundreds of hours of post-graduate and continuing education in subjects including Obstetrics, Pediatrics, Basic and Advanced Disaster Life Support, Nutrition and Functional Medicine; while in the final year of medical school, Dr Vasquez completed a Pre-Doctoral Research Fellowship in Complementary and Alternative Medicine Research hosted by the US National Institutes of Health (NIH). Dr Vasquez is the author of many textbooks, including Integrative Orthopedics (2004, 2007 2012), Functional Medicine Rheumatology (Third Edition, 2014), Musculoskeletal Pain: Expanded Clinical Strategies (commissioned and published by Institute for Functional Medicine, 2008), Chiropractic and Naturopathic Mastery of Common Clinical Disorders (2009), Integrative Medicine and Functional Medicine for Chronic Hypertension (2011), Brain Inflammation in Migraine and Fibromyalgia (2016), Mitochondrial Nutrition and Endoplasmic Reticulum Stress in Primary Care, 2nd Edition (2014), Antiviral Strategies and Immune Nutrition (2014), Mastering mTOR (2015), Autism, Dysbiosis, and the Gut-Brain Axis (2017) and the **1200-page Inflammation Mastery 4th Edition (2016) also published as the two-volume set Textbook of Clinical Nutrition and Functional Medicine**. "DrV" has also written approximately 100 letters and articles for professional magazines and medical journals such as *TheLancet.com*, *British Medical Journal* (BMJ), *Annals of Pharmacotherapy*, *Nutritional Perspectives*, *Journal of Manipulative and Physiological Therapeutics* (JMPT), *Journal of the American Medical Association* (JAMA), *Original Internist*, *Integrative Medicine*, *Holistic Primary Care*, *Alternative Therapies in Health and Medicine*, *Journal of the American Osteopathic Association* (JAOA), *Dynamic Chiropractic*, *Journal of Clinical Endocrinology and Metabolism*, *Current Asthma and Allergy Reports*, *Complementary Therapies in Clinical Practice*, *Nature Reviews Rheumatology*, *Annals of the New York Academy of Sciences*, and *Arthritis & Rheumatism*, the Official Journal of the American College of Rheumatology. Dr Vasquez lectures internationally to healthcare professionals and has a consulting practice and service for doctors and patients. DrV has served as a consultant, product designer, writer and lecturer for Biotics Research Corporation since 2004. Having served on the Review Boards for *Journal of Pain Research*, *Autoimmune Diseases*, *PLOS One*, *Alternative Therapies in Health and Medicine*, *Neuropeptides*, *International Journal of Clinical Medicine*, *Journal of Inflammation Research*, *BMC Complementary and Alternative Medicine* (all PubMed/Medline indexed), and *Journal of Naturopathic Medicine* and as the founding Editor of *Naturopathy Digest*, Dr Vasquez is currently the Editor (2013-) of *International Journal of Human Nutrition and Functional Medicine* and Former Editor (2018-2019) of *Journal of Orthomolecular Medicine*, published for more than 50 consecutive years by the International Society for Orthomolecular Medicine.

INFLAMMATION MASTERY

4TH EDITION

CLINICAL NUTRITION, FUNCTIONAL MEDICINE, MITOCHONDRIAL DYSFUNCTION, MICROBIOME & DYSBIOSIS, FUNCTIONAL INFLAMMOLOGY, PAIN MANAGEMENT, INTEGRATIVE RHEUMATOLOGY, NUTRITIONAL IMMUNOMODULATION, IMMUNONUTRITION & ANTIVIRAL STRATEGIES

The Colorful and Definitive Guide Toward Health and Vitality and away from the Boredom, Risks, Costs, and Inefficacy of Endless Analgesia, Immunosuppression, and Polypharmacy

3-Part Learning System of Text, Illustrations, and Video

DR. ALEX VASQUEZ
ICHNFM.ORG
 INTERNATIONAL COLLEGE OF HUMAN NUTRITION AND FUNCTIONAL MEDICINE