

FOR IMMEDIATE RELEASE

Orthomolecular Medicine News Service, February 13, 2025

Vitamin D Deficiency Causes Covid-19 Susceptibility, Complications, and Mortality

Richard Z. Cheng, M.D., Ph.D.



Introduction

Orthomolecular medicine, which uses optimal doses of nutrients to maintain health and treat diseases, has gained increasing attention in recent years, especially for its role in supporting immune health. One of the most prominent examples is the use of **Vitamin D3** to enhance immunity, particularly in the context of COVID-19. A recent review by **Dr. Sunil Wimalawansa, who was one of the members of our 2024 International Expert Forum on Vitamin D (1)**, reviewed over 300 clinical trials, and concluded **there is a causal relationship between vitamin D deficiency and SARS-CoV-2 Susceptibility, Complications, and Mortality (2)**.

The Effectiveness of Vitamin D3 and Calcifediol in Boosting Immunity

Dr. Wimalawansa's study, published in *Nutrients*, on Feb. 6th, 2025, compiled results from over 300 clinical trials, confirming that **Vitamin D3** and **calcifediol** are highly effective in reducing the severity and progression of COVID-19. **These two forms of Vitamin D were found to lower the risk of infection, complications, hospitalization, and death by 50%. Importantly, these nutrients outperform all currently available FDA-approved COVID-19 therapies, which are often costly and have limited efficacy.**

Vitamin D is well known for its role in modulating the immune system, helping the body respond to infections more effectively. In the case of COVID-19, individuals with higher levels of Vitamin D have been shown to have a significantly lower risk of severe outcomes. Both Vitamin D3 and calcifediol, being highly bioavailable forms of Vitamin D, are considered especially effective in maintaining optimal immune function.

Economic Savings and Affordability

Another key advantage of **orthomolecular nutrition immunity**, including Vitamin D3 and calcifediol, is **cost-effectiveness**. In comparison to patented, FDA-approved COVID-19 therapies, Vitamin D3 and calcifediol are significantly less expensive, costing only **"At USD 2/patient, D3 supplementation is far cheaper than hospitalization costs and more effective than standard interventions" (2)**. The economic burden of relying on high-cost pharmaceutical treatments for widespread conditions like COVID-19 can be staggering, especially when many of these treatments are only marginally effective or require long-term use.

Vitamin D3 and calcifediol, on the other hand, are affordable, widely available, and require minimal supplementation to achieve beneficial effects, making it a more accessible option for both individuals and healthcare systems. Incorporating these low-cost nutrients into routine care could lead to significant **cost savings** in the management of infectious diseases, reducing overall healthcare expenses related to hospitalization and complications.

Safety and Minimal Side Effects

Another major advantage of **Vitamin D3** and **calcifediol** is their safety profile, especially when the blood level of vitamin D3 is maintained between 50 and 100 ng/ml (2-4). For most individuals, the doses of vitamin D3 that achieve these levels are 2,000-10,000 IU/d (50-250 mcg/d, or approximately 32 IU/lb [70 IU/kg] of body weight for a non-obese adult). These doses are well tolerated by the majority of individuals. Unlike many pharmaceutical drugs, which can have a range of side effects-from mild to severe-Vitamin D3 and calcifediol generally have very few adverse effects when used in recommended amounts.

The most common side effect of excessive Vitamin D intake is **hypercalcemia** (elevated calcium levels), but this is rare and usually occurs only with prolonged high doses that far exceed the recommended daily intake. For most people, Vitamin D supplementation is safe, and the body has mechanisms to regulate its use. This makes Vitamin D-based treatments far safer and more sustainable in the long term than many other medications with more extensive side effects.

Conclusion and Call to Action

The evidence is irrefutable: Vitamin D3 and calcifediol should be cornerstone treatments, alongside other essential vitamins and micronutrients, to enhance immunity, mitigate infection severity, and prevent adverse outcomes in diseases like COVID-19 and any future epidemics or pandemics of **known or unknown causes** (5). Supported by over 300 clinical trials, vitamin D has demonstrated the ability to reduce infections, complications, hospitalizations, and deaths by approximately 50%, outperforming current FDA-approved COVID-19 therapies.

Given the strong track record of vitamin D3 for safety, affordability, and effectiveness, it is clear that waiting for additional studies is unnecessary. The time to integrate Vitamin D3 and/or calcifediol into clinical practice is now. Incorporating these nutrients into clinical protocols offers a proven solution that not only addresses immediate health concerns but also provides long-term benefits without the side effects of more expensive, patented treatments.

About Dr. Sunil Wimalawansa, M.D., Ph.D.



Dr. Sunil Wimalawansa, M.D., Ph.D., is a renowned physician, scientist, and expert in the field of endocrinology, particularly known for his work in the areas of vitamin D and its clinical applications. He holds multiple academic positions and is recognized for his extensive research on the role of vitamin D in health and disease prevention. Dr. Wimalawansa has contributed to numerous scientific publications, exploring the therapeutic potential of vitamin D in various medical conditions, including osteoporosis, cardiovascular disease, and diabetes. His work emphasizes the importance of optimal vitamin D levels for overall health and wellness, and he has been a vocal advocate for broader public health initiatives regarding vitamin D deficiency. In addition to his clinical and research expertise, Dr. Wimalawansa is also involved in education, speaking at international conferences and authoring books on the subject of vitamin D and its impact on human health.

Dr. Wimalawansa is a member of the editorial board of Orthomolecular Medicine News Service.

References:

1. 2024 International Virtual Vitamin D Forum & Expert Panel Discussion. Orthomolecular Med News Service. <https://orthomolecular.org/resources/omns/v20n15.shtml>
2. Wimalawansa SJ (2025) Vitamin D Deficiency Meets Hill's Criteria for Causation in SARS-CoV-2 Susceptibility, Complications, and Mortality: A Systematic Review. *Nutrients*, 17:599. <https://doi.org/10.3390/nu17030599>
3. Grant WB, Wimalawansa SJ, Pludowski P, Cheng RZ (2025). Vitamin D: Evidence-Based Health Benefits and Recommendations for Population Guidelines. *Nutrients*. 17(2):277. <https://www.mdpi.com/2072-6643/17/2/277>
4. Cheng RZ (2025) Summary of "Vitamin D: Evidence-Based Health Benefits and Recommendations for Population Guidelines". Orthomolecular Med News Service. <https://orthomolecular.org/resources/omns/v21n04.shtml>
5. Cheng RZ (2025) Orthomolecular Nutrition Immunity: A Holistic Alternative to Vaccines Against Infections. Orthomolecular Nutrition Immunity: A Holistic Alternative to Vaccines Against Infections. <https://orthomolecular.org/resources/omns/v21n05.shtml>
6. Cheng RZ (2020) Protected Group Immunity, Not a Vaccine, is the Way to Stop the COVID-19 Pandemic. <https://www.orthomolecular.org/resources/omns/v16n27.shtml>

Orthomolecular Medicine

Orthomolecular medicine uses safe, effective nutritional therapy to fight illness. For more information: <http://www.orthomolecular.org>

Find a Doctor

To locate an orthomolecular physician near you: <http://orthomolecular.org/resources/omns/v06n09.shtml>

The peer-reviewed Orthomolecular Medicine News Service is a non-profit and non-commercial informational resource.

Editorial Review Board:

Jennifer L. Aliano, M.S., L.Ac., C.C.N. (USA)
Albert G. B. Amoa, MB.Ch.B, Ph.D. (Ghana)
Seth Ayettey, M.B., Ch.B., Ph.D. (Ghana)
Ilyès Baghli, M.D. (Algeria)
Greg Beattie, Author (Australia)
Barry Breger, M.D. (Canada)
Ian Brighthope, MBBS, FACNEM (Australia)
Gilbert Henri Crussol, D.M.D. (Spain)
Carolyn Dean, M.D., N.D. (USA)
Ian Dettman, Ph.D. (Australia)
Susan R. Downs, M.D., M.P.H. (USA)
Ron Ehrlich, B.D.S. (Australia)
Hugo Galindo, M.D. (Colombia)
Gary S. Goldman, Ph.D. (USA)
William B. Grant, Ph.D. (USA)
Claus Hancke, MD, FACAM (Denmark)
Patrick Holford, BSc (United Kingdom)
Ron Hunninghake, M.D. (USA)
Bo H. Jonsson, M.D., Ph.D. (Sweden)
Dwight Kalita, Ph.D. (USA)
Felix I. D. Konotey-Ahulu, M.D., FRCP (Ghana)
Peter H. Lauda, M.D. (Austria)
Fabrice Leu, N.D., (Switzerland)
Alan Lien, Ph.D. (Taiwan)
Homer Lim, M.D. (Philippines)
Stuart Lindsey, Pharm.D. (USA)
Pedro Gonzalez Lombana, M.D., Ph.D. (Colombia)
Victor A. Marcial-Vega, M.D. (Puerto Rico)
Juan Manuel Martinez, M.D. (Colombia)
Mignonne Mary, M.D. (USA)
Dr.Aarti Midha M.D., ABAARM (India)
Jorge R. Miranda-Massari, Pharm.D. (Puerto Rico)
Karin Munsterhjelm-Ahumada, M.D. (Finland)
Sarah Myhill, MB, BS (United Kingdom)
Tahar Naili, M.D. (Algeria)
Zhiyong Peng, M.D. (China)
Pawel Pludowski, M.D. (Poland)
Isabella Akyinbah Quakyi, Ph.D. (Ghana)

Selvam Rengasamy, MBBS, FRCOG (Malaysia)

Jeffrey A. Ruterbusch, D.O. (USA)

Gert E. Schuitemaker, Ph.D. (Netherlands)

Thomas N. Seyfried, Ph.D. (USA)

Han Ping Shi, M.D., Ph.D. (China)

T.E. Gabriel Stewart, M.B.B.CH. (Ireland)

Jagan Nathan Vamanan, M.D. (India)

Dr. Sunil Wimalawansa, M.D., Ph.D. (Sri Lanka)

Andrew W. Saul, Ph.D. (USA), Founding Editor

Richard Cheng, M.D., Ph.D. (USA), Editor-In-Chief

Associate Editor: Robert G. Smith, Ph.D. (USA)

Editor, Japanese Edition: Atsuo Yanagisawa, M.D., Ph.D. (Japan)

Editor, Chinese Edition: Richard Cheng, M.D., Ph.D. (USA)

Editor, Norwegian Edition: Dag Viljen Poleszynski, Ph.D. (Norway)

Editor, Arabic Edition: Moustafa Kamel, R.Ph, P.G.C.M (Egypt)

Editor, Korean Edition: Hyoungjoo Shin, M.D. (South Korea)

Editor, Spanish Edition: Sonia Rita Rial, PhD (Argentina)

Editor, German Edition: Bernhard Welker, M.D. (Germany)

Associate Editor, German Edition: Gerhard Dachtler, M.Eng. (Germany)

Assistant Editor: Michael Passwater (USA)

Contributing Editor: Thomas E. Levy, M.D., J.D. (USA)

Contributing Editor: Damien Downing, M.B.B.S., M.R.S.B. (United Kingdom)

Contributing Editor: W. Todd Penberthy, Ph.D. (USA)

Contributing Editor: Ken Walker, M.D. (Canada)

Contributing Editor: Michael J. Gonzalez, N.M.D., Ph.D. (Puerto Rico)

Technology Editor: Michael S. Stewart, B.Sc.C.S. (USA)

Associate Technology Editor: Robert C. Kennedy, M.S. (USA)

Legal Consultant: Jason M. Saul, JD (USA)

Comments and media contact: editor@orthomolecular.org OMNS welcomes but is unable to respond to individual reader emails. Reader comments become the property of OMNS and may or may not be used for publication.

[Click here to see a web copy of this news release:](#)

https://orthomolecular.acemlna.com/p_v.php?l=1&c=363&m=352&s=a5f04f4ea3c446bef36f3fef79297c98

This article may be reprinted free of charge provided 1) that there is clear attribution to the Orthomolecular Medicine News Service, and 2) that both the OMNS free subscription link <http://orthomolecular.org/subscribe.html> and also the OMNS archive link <http://orthomolecular.org/resources/omns/index.shtml> are included.

Riordan Clinic | Orthomolecular.org

3100 N Hillside Ave

Wichita, Kansas 67219

United States