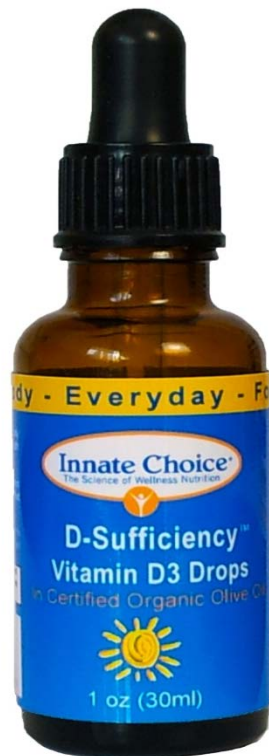
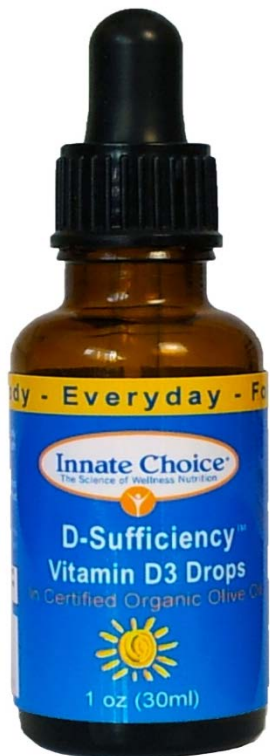


Gold Standard

D-Sufficiency™

Vitamin D3 Drops





Vitamin D is an essential nutrient and thus a human genetic requirement for healing and prevention.

What is Vitamin D?



- It is actually a hormone
- It is “converted cholesterol” – produced in the body in response to exposure to ultraviolet B radiation (UVB)
- It cannot be produced without exposure to sunlight – it is an essential nutrient.

Even those who live in sunny climates rarely, if ever, get enough sun exposure due to clothing and use of sunscreens.



The Journal of CLINICAL ENDOCRINOLOGY & METABOLISM

Vicente Gilsanz, Arye Kremer, Ashley O. Mo, Tishya A. L. Wren, and Richard Kremer. **Vitamin D Status and Its Relation to Muscle Mass and Muscle Fat in Young Women.** *Journal of Clinical Endocrinology & Metabolism*, 2010; DOI: [10.1210/jc.2009-2309](https://doi.org/10.1210/jc.2009-2309)

**Well over half of the population is
severely vitamin D deficient.**



RESEARCH INDICATES THAT:

The vast majority of Industrial society is
DANGEROUSLY DEFICIENT in Vitamin D.

*This deficiency is implicated as a causal factor
in alarming numbers of preventable illnesses
and disease-related deaths worldwide.*



Vitamin D plays a role in virtually every human function including:

- growth and development
- brain and nerve function
- emotions and behavior
- maintenance of skin and bones
- regulation of healing & inflammation
- cholesterol levels
- digestion
- heart function
- immune function
- vision



Vitamin D is an essential requirement for proper immune system function, digestive system function, and vitamin production. In other words, sufficiency of Vitamin D is essential for the proper health and function of every cell, tissue, and organ in the body.



Importance of Vitamin D Sufficiency

Holick M. High prevalence of Vitamin D inadequacy and implications for health. Mayo Clin Proc. 2006;81(3):353-373.

“Sufficient levels of Vitamin D are necessary for the proper function of the immune system, for cardiovascular health, for bone growth and repair, and for overall wellness and prevention.”



Conditions associated with Vitamin D Deficiency

Vitamin D Council, <http://www.vitamindcouncil.org/health-conditions/> website accessed 22 June 2011

Cancer, cardiovascular disease, diabetes and other endocrine diseases, infections and autoimmune disorders, mental health and learning disorders, musculoskeletal disorders, neurological disorders including autism and multiple sclerosis, dental caries and periodontal disease, respiratory diseases, skin disorders, and women's health issues such as low fertility and PCOS.



Symptoms of Vitamin D Deficiency

Altered moods and/or depression, chronic fatigue, chronic pain, weak bones, weight loss, frequent infections.



Vitamin D Deficiency and Chronic Inflammation

Pedersen LB, et al. (2007) 1,25-dihydroxyvitamin D3 reverses experimental autoimmune encephalomyelitis by inhibiting chemokine synthesis and monocyte trafficking. *J Neurosci Res*;85:2480-2490.

“The active 1,25(OH)₂D form of **vitamin D** is a **potent modulator of inflammation**, and may play a role in **shutting off chronic inflammatory responses.**”



Vitamin D Deficiency and Musculoskeletal Pain

Al Faraj S, Al Mutairi K. 2003 Vitamin D deficiency and chronic low back pain in Saudi Arabia. Spine 28:177-179.

Subjects were treated for 3 months with **5,000 IU/day to 10,000 IU/day** of vitamin D3.

There were no episodes of hypercalcemia reported, and **pain symptoms were relieved in 95% of the patients.**



Vitamin D Deficiency and Musculoskeletal Pain

Stewart Leavitt, Ph.D. 2008 Vitamin D – A Neglected ‘Analgesic’ for Chronic Musculoskeletal Pain. Pain Treatment Topics

“Many patients with **vitamin D deficiencies** may complain of dull, persistent, generalized **musculoskeletal aches, pains, and weakness.**”



Vitamin D Deficiency and Musculoskeletal Pain

Stewart Leavitt, Ph.D. 2008 Vitamin D – A Neglected ‘Analgesic’ for Chronic Musculoskeletal Pain. Pain Treatment Topics

“Experts recommend that **vitamin D deficiency** should be considered in the differential **diagnosis of all patients with chronic musculoskeletal pain, muscle weakness or fatigue, fibromyalgia, or chronic fatigue syndrome.**”



Vitamin D Deficiency and Musculoskeletal Pain

Stewart Leavitt, Ph.D. 2008 Vitamin D – A Neglected ‘Analgesic’ for Chronic Musculoskeletal Pain. Pain Treatment Topics

“Some researchers have found this (**vitamin D deficiency**) to occur in up to **85% of chronic musculoskeletal pain cases**, especially those involving the **lower back**.”



Vitamin D Deficiency and Cancer

Jemal A, et al. Cancer statistics, 2007. CA Cancer J Clin. 2007 Jan-Feb;57(1):43-66.

Vitamin D-sensitive cancers are responsible for 257,000 deaths (46% of all cancer deaths in U.S. in 2007).



Vitamin D Deficiency and Cancer

Garland CF, Grant WB, Mohr SB, et al. What is the dose-response relationship between vitamin D and cancer risk? *Nutr Rev* 2007;65:S91-S95.

Colon cancer could be reduced by 50% with Vit D levels maintained above 34 ng/ml (85 nmol/L).

Breast cancer could be reduced by 50% with Vit D levels maintained above 52 ng/ml (130 nmol/L).



Vitamin D Deficiency and Diabetic Neuropathy

Lee P, Chen R. 2008 Vitamin D as an analgesic for patients with type 2 diabetes and neuropathic pain. Arch Intern Med. 168(7):771-772.

A group of Type 2 diabetic subjects with chronic, painful neuropathy were supplemented with **2,000 IU/day** of Vitamin D for 3 months.

Symptoms improved from an average of “distressing” to an average of “mild”. **Overall results were a nearly 50% reduction in pain scores.**



Vitamin D Deficiency and Auto-Immune Issues

Cannell et al. 2008 Cod Liver Oil, Vitamin A Toxicity, Frequent Respiratory Infections, and the Vitamin D Deficiency Epidemic. Annals of Otolaryngology, Rhinology & Laryngology 117 (11): 864-870

“Evidence even suggests that vitamin D is involved in the triple current childhood epidemic of autism, asthma, and autoimmune diabetes.”



Vitamin D Deficiency and Depression and Fibromyalgia

Stewart Leavitt, Ph.D. 2008 Vitamin D – A Neglected ‘Analgesic’ for Chronic Musculoskeletal Pain. Pain Treatment Topics

“One investigation in patients with **fibromyalgia** syndrome found that **pain** symptoms, **depression**, and **anxiety** were **strongly associated with insufficient vitamin D.**”



Vitamin D Sufficiency and Slowed Aging

Richards, JB et al. Higher serum vitamin D concentrations are associated with longer leukocyte telomere length in women. *Am J Clin Nutr* 2007 Nov;86(5):1420-5

Researchers studying 2,160 twins found higher vitamin D levels may alter telomere length of leukocytes. “The difference between the highest and lowest tertiles of vitamin D was 107 base pairs ($p=0.0009$), which is equivalent to **5 years of telomeric aging.**”

The authors go on to state that this finding “...underscores the **potentially beneficial effects of Vitamin D on aging and age-related diseases.**”



Vitamin D Sufficiency Improves Physical Performance

Vitamin D Council News Archive 2007 (Dr. Cannell M.D.)

“If you are vitamin D deficient, the medical literature indicates that the right amount of vitamin D will make you faster, stronger, improve your balance and timing.”



Vitamin D Sufficiency and Prevention of Cold and Flu

Aloia, J et al. Epidemic Influenza and Vitamin D. *Epidemiology and Infection* 2007, Vol 135 (7) pp. 1095-1098

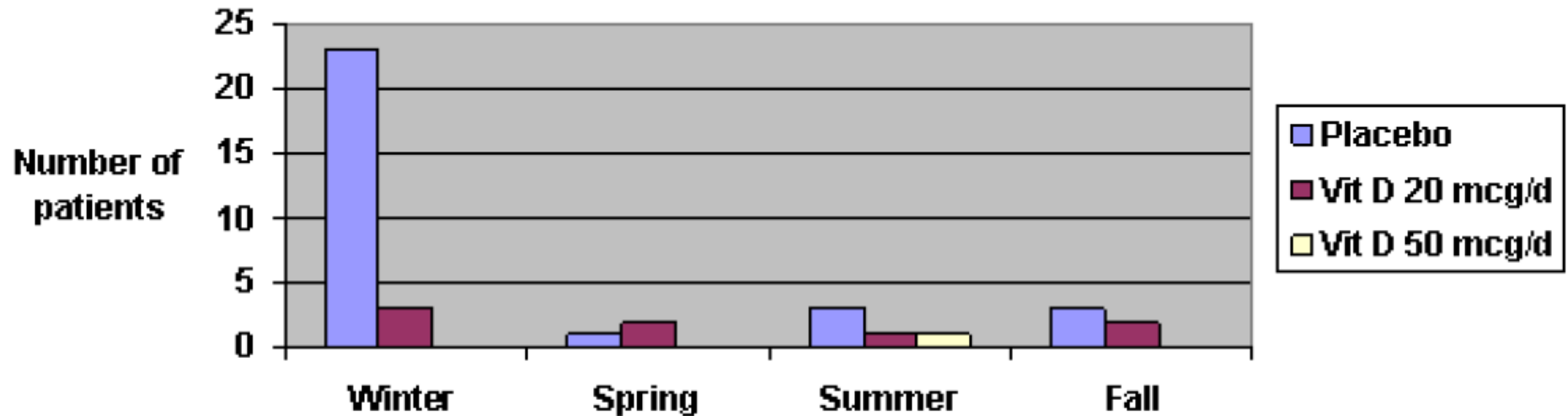
In a 3 year trial taking **800 IU/day** of Vitamin D reduced the incidence of colds and flu by 70%.

In the group taking **2,000 IU/day** the incidence of colds and flu was reduced by almost 100% (only 1 of 104 subjects developed cold or flu).



Vitamin D Sufficiency and Prevention of Cold and Flu

Aloia, J et al. Epidemic Influenza and Vitamin D. *Epidemiology and Infection* 2007, Vol 135 (7) pp. 1095-1098



Vitamin D Sufficiency and Prevention of Cold and Flu

Urashima, et al. Randomized trial of vitamin D supplementation to prevent seasonal influenza in schoolchildren. *Am J Clin Nutr* May 2010 Vol 91 (5) 1255-60

A randomized, double-blind, placebo-controlled study published in the *American Journal of Clinical Nutrition* reported that children taking **1,200 IUs** of vitamin D₃ supplements daily in winter were 67% less likely to get Type A influenza (H1N1 varieties).



Vitamin D Sufficiency and Healthy Pregnancy and Births

Wagner CL et al. "Vitamin D supplementation during Pregnancy Part 2 NICHD/CTSA Randomized Clinical Trial (RCT): Outcomes" PAS 2010; Abstract 1665.6.

“Limited vitamin D passes through the breast milk. As a result, **many pregnant women and their offspring are vitamin D deficient.**”

Pregnant women sufficient in vitamin D had lower rates of preterm labor and preterm birth, and lower rates of infection.



Vitamin D Sufficiency and Healthy Pregnancy

Wagner CL et al. "Vitamin D supplementation during Pregnancy Part 2 NICHD/CTSA Randomized Clinical Trial (RCT): Outcomes" PAS 2010; Abstract 1665.6.

The greatest effects were seen among women taking **4,000 IU of vitamin D** per day. Therefore, the researchers recommend this daily regimen for all pregnant women.

"No adverse events related to vitamin D dosing were found in any of the three arms of the study."



Vitamin D Sufficiency Requirements

Stewart Leavitt, Ph.D. Vitamin D – A Neglected ‘Analgesic’ for Chronic Musculoskeletal Pain. Pain Treatment Topics June 2008

“Achieving adequate levels of vitamin D in most patients without appropriate supplementation could be difficult or impossible.”

“All once-daily multivitamin products contain vitamin D, ranging from 400 to 800 IU, but this amount would be inadequate for most persons.”



Vitamin D Sufficiency

Stewart Leavitt, Ph.D. Vitamin D – A Neglected ‘Analgesic’ for Chronic Musculoskeletal Pain. Pain Treatment Topics June 2008

“Experts recommend **3,000 IU to 4,000 IU per day** as necessary to create sufficiency [Holick 2007; Vasquez et al. 2004; Vieth et al. 2004].”



Restoring Vitamin D Sufficiency Takes Months

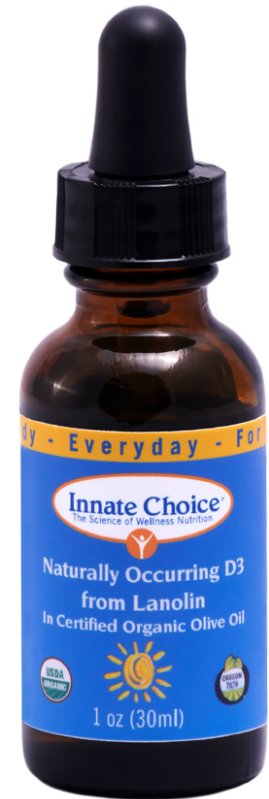
Stewart Leavitt, Ph.D. 2008 Vitamin D – A Neglected ‘Analgesic’ for Chronic Musculoskeletal Pain. Pain Treatment Topics

“Because its actions address underlying processes, **vitamin D supplementation may take months** to facilitate pain relief, which can range from partial to complete.”



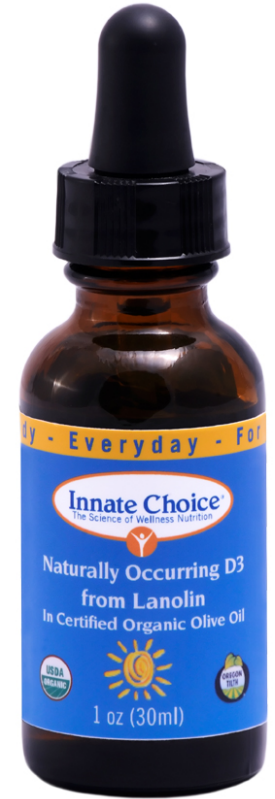
Vitamin D Sufficiency:

Provides an easy to take, easy to digest liquid form of Vitamin D3 in 100% Certified Organic Olive Oil.



Vitamin D Sufficiency comes in a convenient liquid with an easy to use dropper included.

Each bottle contains 1000 drops and each drop provides **500 IUs** of the world's premier Vitamin D3 delivered in 100% Certified Organic Olive Oil.



Gold Standard

D-Sufficiency™

Vitamin D3 Drops

