Vitamin D-3 Healthy Cell, Bone and Immune Support



ew research indicates that our modern indoor lifestyles may lead to a widespread increase in vitamin D deficiency.

Nicknamed the "sunshine vitamin" because the body makes it naturally when exposed to the sun, scientists are discovering that vitamin D-3 is an important hormone

precursor that supports the immune system and helps regulate the health of at least 20 different tissues, including the brain and joints. It also plays an important role in regulating cell growth, insulin levels and bone formation.

Strategies for Wellness

Researchers are finding that the current recommended daily allowances of vitamin D—200 international units for infants, children and adults up to age 50 years; 400 IU for men and women from 50 to 70; and 600 IU for people older than 70—may be far lower than what is necessary for optimum health. That's why Source Naturals offers Vitamin D-3 in 400 IU, 1,000 IU and 2,000 IU tablets; 2000 IU softgels, 5000 IU capsules, and as a convenient liquid.





Total Body Vitamin

Vitamin D addresses seven of the twelve SystemiCare[™] deep metabolic systems of the body, systems crucial to vibrant health: Cells/ DNA, Inflammation Response, Metabolism, Hormones, Cognition/ Nerves, Immunity, and Structure/ Connective Tissue.

Healthy Cell Proliferation

Vitamin D research is an emerging area of interest for scientists, who have yet to understand the many roles of this important vitamin in the body. While vitamin D's main function is to maintain normal levels of calcium and phosphorus in the blood, vitamin D also serves as a hormone precursor. Once it has been converted into its active form, it can enter a cell, cross the nuclear membrane, attach to specific receptors on the DNA or its protein wrapping, and promote cell differentiation. Vitamin D is one of the body's many control systems, acting like an emergency brake to stop cells from perilously misbehaving.

Important Immune and Health Booster

Two studies involving more than 200,000 American women have also highlighted the vitamin's benefits. Women who consumed the recommended daily amount of vitamin D or more were 30% to 40% less likely to have immune imbalances. Additional studies suggest that vitamin D may aid neurological health, joint comfort and function, and support healthy blood sugar levels that are within the normal range. Vitamin D decreases the production of a hormone called renin, which is believed to play a role in maintaining normal blood pressure levels. Even a person's weight is a factor: It has been found that people who are overweight do not synthesize vitamin D as well as people who are not obese, hence the need for supplementation.

Vitamin D and Bone Health

It is estimated that over 25 million adults in the United States have, or are at risk of developing, weakened bones as they age. Having normal storage levels of vitamin D in the body helps keep bones strong, especially in elderly, non-ambulatory individuals and post-menopausal women.

Vitamin D and Blood Pressure Vitamin D may also support healthy blood pressure. Scientists noticed that blood pressure levels vary with the season—they tend to be high-



est during autumn and lower during the warmer months of spring and summer. Researchers studied people's blood pressure and the levels of vitamin D in their blood and discovered a connection between higher vitamin D levels and decreased blood pressure.

The body controls blood pressure through the renin-angiotensin system, with high renin levels leading to increased blood pressure. Cutting edge research has shown that vitamin D regulates renin levels through genetics, which may be the critical way in which this vitamin supports cardiovascular health.

Deficiency Is Widespread

Vitamin D is not available in most foods (oily fish, egg yolks, liver and cod liver oil have some) but is made when sunlight strikes the skin. Vitamin D insufficiency may be quite common in places far from the equator and researchers estimate that 50% of Americans may have less vitamin D than they need. Today's teens also have less exposure to direct sunlight and have switched from drinking vitamin D fortified milk to soda. Puberty is a very critical time when up to half of a person's adult bone mass is being deposited, and vitamin D helps ensure that people have normal blood levels of calcium for this important process. New research estimates that 30 percent of adolescents nationwide may be vitamin D deficient.

Deficiency Risk for African Americans

People of African descent require up to 30 minutes sun exposure three

times weekly during summer on the face, arms and hands, while very fairskinned white people require 5-10 minutes. African-Americans have the highest risk for vitamin D deficiency because dark skin needs 5 to 10 times more sunlight than white skin to produce the same amount of the vitamin. One study found that 42 percent of African-American women in the U.S. were vitamin D deficient. And while the use of sunscreen is imperative for skin health, sunscreen that is sun protection factor 8 (SPF 8) or greater



blocks 95% of the UVB light needed for the skin to synthesize vitamin D.

Age a Factor

Older adults may also be at particularly high risk: After age 50 the requirement for vitamin D doubles because the body is less able to make its own vitamin D. In a report in the *Journal* of the American Geriatrics Society in February 2004, researchers at the University of Basel in Switzerland showed that elderly women who took a vitamin D supplement plus calcium for three months reduced their risk of falling by 49% compared with consuming calcium alone. Those women who had fallen repeatedly in the past seemed to gain the most benefit from vitamin D.

The Wellness Revolution

Taking personal responsibility for your health and exploring safe natural alternatives to support prevention



is the basis for the current revolution in health care. Vitamin D's benefits are only now being recognized and acknowledged. Health food outlets are the center of this wellness revolution because only here can Source Naturals VITAMIN D and hundreds of other powerful natural compounds be found.

References

Argiles, A. 2002. Blood pressure is correlated with vitamin D3 serum levels in dialysis patients. *Blood Purif*: 20(4):370-5.

Borissova, A-M. The effect of vitamin D3 on insulin secretion and peripheral insulin sensitivity in type 2 diabetic patients. *IJCP* 2003:57(4): 258-261.

Hung, M. Higher Vitamin D Intake Associated With Lower Risk of Rheumatoid Arthritis. *Medscape Medical News* Jan. 9, 2004 Li YC. 2003. Vitamin D regulation of the rennin-angiotensin system. *J Cell Biochem* 2003:88(2):327-31. Wiley Interscience.

Merlino, L. Vitamin D intake is inversely associated with rheumatoid arthritis: results from the Iowa women's health study. *Arthritis and Rheumatism* 2004(1):72-77. American College of Rheumatology, 2004.

Monger, KL. Vitamin D intake and incidence of multiple sclerosis. *Neurology* 2004:62(1):60-65. AAN Enterprises, Inc.

Rucker, D. Vitamin D insufficiency in a population of healthy western Canadians. *CMAJ* 2002: 166(12): 1517-1524.



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