DOCTORS NATURAL

VITAMIN D NEWSLETTER

DEFINITIVELY, VITAMIN D!

By Dr. Bo M. Nielsen

If there was one vitamin we couldn't live without, it would have to be vitamin D. Scientists have been suggesting its importance for years and finally now a flood of research and studies are proving them right. That's because vitamin D is a very special nutrient.

Vitamin D is known as a fat-soluble vitamin, but in reality it is a hormone that sends signals to cells through a receptor called vitamin D receptor (VDR). Vitamin D is inactive, and in order to carry out its functions it must first be converted into a biologically active form in our body. This occurs twice: in our liver it is first converted to 25-hydroxyvitamin D [25(OH)D] and then in our kidneys into 1 alpha, 25-dihydroxyvitamin D [1,25(OH)2D]. That's a fair bit of biochemistry that may hold little appeal to you, but these biologically active forms are what make vitamin D so special. Now, through the VDR they can regulate hundreds of biochemical processes including regulating over 50 genes.

Vitamin D is vital for overall health

Well, if you think vitamin D is only useful for strong bones and preventing rickets and osteoporosis, you are not doing it any justice at all. Through the VDR, the biologically active form of vitamin D: regulates insulin secretion and wards off type II diabetes; regulates blood pressure; increases bone and muscle strength; protects against cancer; protects against autoimmune diseases, such as multiple sclerosis, type I diabetes and rheumatoid arthritis; protects against viral, bacterial and fungal infections; and protects and against cardiovascular disease.

Vitamin D is definitely the vitamin you do not want to neglect!

Reference:
Linus Pauling Institute som Oregon State University: www.lpi.oregonstate.edu

VITAMIN D THEME

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In this theme newsletter, find out if you are getting enough vitamin D, what you can do to obtain optimal amounts and some of the ways vitamin D can help you maintain a healthy, disease-free life!

ARE YOU GETTING ENOUGH VITAMIN D?

Probably not.
According to recent studies, many of us are vitamin D deficient and we may not even be aware of it. As we age, our absorption of vitamin D naturally decreases but our modern lifestyle is also to blame. We tend to spend more time indoors and when we do go out in the sun, we soak ourselves in sunscreen, which in reality prevents us from obtaining vitamin D from the sun. Many scientists believe that as much as 60 percent of the northern hemisphere may be vitamin D deficient due to lack of sunshine.

Who is at risk for vitamin D deficiency

We can all develop vitamin D deficiency; however some people may be at increased risk, such as people with darker skin, those who live in higher latitudes, people with limited sun exposure, older housebound adults, people with osteoporosis, kidney and liver disease and those with inflammatory bowel disease such as Crohn's.

At least 2000 IU of vitamin D needed

The RDA of vitamin D is currently 400 IU for adults, (Cristina and Christina check RDA for Denmark and Sweden) a figure that many scientists believe falls very short of what is optimal. Researchers recommend at least 2,000 IU a day to obtain health benefits.

What's the best way to get vitamin D?

Ideally, sun exposure (with as much skin exposed as possible) for 20 to 30 minutes a day, every day of the year, is the best way to generate adequate levels of vitamin D. We all know, however, that this is impossible in many geographic areas of the world. Vitamin D from food is also not an ideal source because not much is available from food and those which are fortified are generally done so with synthetic, less bioavailable forms of vitamin D, which has little or no effect at all. The only real way to ensure you are getting enough vitamin D is to supplement with the natural, bioavailable form of vitamin D, D3.

Reference: Gregory, P. Natural Medicines Comprehensive Database. May, 2008.

DOCTOR'S NATURAL VITAMINS - YOUR NATURAL SOURCE FOR VITAMIN D

Moderate exposure to the sun and following a healthy diet is important but may not be enough in order to obtain sufficient levels of vitamin D.

Supplementation with natural vitamin D, such as in Doctor's Natural Vitamins in combination with OsteoPro-D, will provide you with 2000+ IU of the natural, bioavailable vitamin D3.

PREVENT COLD AND FLU BY 40% WITH VITAMIN D

Low vitamin D levels increase your risk of catching frequent colds and flu by 40%.

In a study conducted in the U.S.A. earlier this year, people with lower levels of vitamin D were 40% more likely to catch colds and flu compared to people with sufficient vitamin D levels. The study additionally revealed that people with respiratory disorders such as chronic obstructive pulmonary disease, emphysema and asthma who also had low blood levels of vitamin D were at even higher risks of catching cold and flu viruses. In fact, asthma sufferers with low vitamin D levels were five times as likely to catch colds and flu as those with higher levels of vitamin D.

Vitamin D may save your life

Researchers have discovered vitamin D is a key player in our overall health and is important for maintaining a strong immune system. In fact, in its biologically active form, vitamin D is a potent immune system modulator and protects us against bacterial, fungal and viral infection, such as colds, flu and even the much talked about swine flu (H1N1). According to a recent study, vitamin D is such an important nutrient that it has remained unchanged in our genome for over 60 million years! Scientists suggest this is evidence that vitamin D is crucial to our survival. And crucial it is because vitamin D has the ability to activate life-saving antimicrobial proteins that prevent viral and bacterial infections. At the same time, vitamin D suppresses an overreaction in the immune system, inhibits autoimmunity and even has an anti-inflammatory effect.

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What does this mean?

That adequate levels of vitamin D are absolutely vital to stay healthy. In other words, vitamin D protects us from practically every known disease. Vitamin D's control over antimicrobial proteins means it can ward off viruses and bacteria and prevent us from catching colds, flu and even the much feared swine flu. The vitamin's ability to suppress the overreaction of our immune system means it can protect us against conditions like allergies and asthma. Autoimmune diseases, such as type I diabetes, coeliac disease, multiple sclerosis and rheumatoid arthritis may also be inhibited with adequate levels of vitamin D. Last but not least, vitamin D has anti-inflammatory effects and given that most diseases (cardiovascular disease, cancer etc.) feature inflammation, imagine how many of them could be potentially prevented. And how can you do that? It's as easy as increasing your intake of vitamin D to at least 2,000 IU a day!

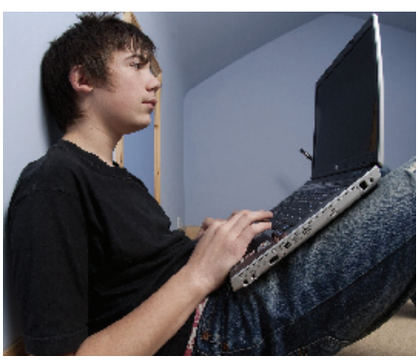
References: Ginde, A.A. & all. "Association between serum 25-hydroxyvitamin D level and upper respiratory tract infection in the Third National Health and Nutrition Examination Survey." Archives of Internal Medicine. Vol. 169, Issue 4, pp. 384-390. 2009. • Gombart, A.F. & all. "Exaptation of an ancient Alu short interspersed element provides a highly conserved vitamin D-mediated innate immune response in humans and primates." BMC Biomedics. July 2009.

TEENAGERS WITH LOW VITAMIN D LEVELS ARE TWICE AS LIKELY TO HAVE HEALTH PROBLEMS

Autoimmune diseases, depression, vision loss, osteoporosis, respiratory diseases and cancer linked to Vitamin D deficiency.

In just the past few years numerous studies have linked vitamin D deficiency to autoimmune diseases, osteoporosis, depression, vision loss, respiratory conditions and some types of cancer. You may be thinking that shouldn't concern you because you are not vitamin D deficient; but consider this fact: if you live in the northern hemisphere, there is a 70 percent likelihood you are deficient. During the winter months when the sun is so weak, you are probably not producing any vitamin D at all. Even if you live in the southern hemisphere, if you are not getting about 20 minutes of daily sun exposure, you are also very possibly lacking vitamin D.

Most teenagers today are at risk of developing serious diseases due to vitamin D deficiency



Now imagine teenagers who have come to lead sedentary lives away from the sun and in front of the computer and television and who the majority of which tend to eat unhealthy, unbalanced diets. An American study from The Children's Hospital of Philadelphia, USA, confirms that a large portion of teenagers are deficient in vitamin D.

Teenagers over twice as likely to have high blood pressure and high gluose because of vitamin D deficiency

Scientists have recently found that these teenagers are twice as likely to suffer from health problems. Their findings, presented at the American Heart Association's 49th Annual Conference on Cardiovascular Disease Epidemiology and Prevention in Florida, show that teenagers with low levels of vitamin D were more than 2 times as likely to have high blood pressure, 2.54 times as likely to have high blood sugar and almost 4 times as likely to have metabolic syndrome – a spectrum of risk factors for heart disease, stroke and type 2 diabetes.

Low levels of vitamin D make you fat

One of the metabolic syndrome risk factors is abdominal fat and a study also presented at the 49th Annual Conference on Cardiovascular Disease Epidemiology and Prevention found that teenagers with low levels of vitamin D had more abdominal fat.

At least 1000 IU of vitamin D is optimal for teenagers

The American Academy of Paediatricians have recommended to increase daily doses of vitamin D for children and teenagers from 200 IU to 400 IU; however, scientists believe that may not be enough and that at least 1,000 IU should be taken every day to prevent health conditions and remain healthy.

Some researchers recommend that you take 2,000 IU if you want to stay healthy. And it's not any kind of vitamin D either that you should be taking. There are two forms of vitamin D: vitamin D2 (ergocalciferol) and vitamin D3 (cholecalciferol). Vitamin D2 is the plant form while vitamin D3 is the type produced by our bodies in response to sunlight exposure and can be obtained in small quantities from food. Vitamin D3 is more bioavailable than vitamin D2, so make sure if you take vitamin D supplements that you are taking this form.

References: Dong, Y. & all. American Heart Association's Joint 49th Conference on Cardiovascular Disease Epidemiology and Prevention and Nutrition, Physical Activity and Metabolism. Florida, U.S.A. March 10-14, 2009. • "Low Vitamin D Levels Associated with Several Risk Factors In Teenagers." Science Daily. March 18, 2009. • Stephen Daniells. "Lack of Vitamin D could lead to fatter teens: Study." Nutra Ingredients. March 15, 2009.

PREGNANT WOMEN DON'T GET ENOUGH VITAMIN D

400 IU of vitamin D during pregnancy not enough

A study published this month reiterates what many scientists have been saying for a while now: pregnant women, even those taking supplements at the recommended daily allowance (RDA), are getting inadequate levels of vitamin D. The Food Standards Agency (FSA) in the UK currently recommends pregnant women to take 400 IU of vitamin D daily. But researchers are worried that this is just not enough to ward off problems in the future life of the baby, such as rickets, type I diabetes and schizophrenia.

75% of pregnant women are vitamin D insufficient

Shockingly, 16% of pregnant women participating in the study were vitamin D deficient while 75% were classified as vitamin D insufficient. These women were at a significantly greater risk of having children with rickets, type I diabetes and schizophrenia. So remember, your vitamin D intake now may determine the health of your future children!

Pregnant women need at least 2000 IU of vitamin D

Pregnant women should take at least 800 IU of vitamin D a day and many researchers recommend at least 2,000 IU. This is especially the case for people who live in the Northern hemisphere and virtually get no sun exposure during the winter months (vitamin D is produced from sunlight exposure).

References: Barnes, M. & all. "Vitamin D deficiency and insufficiency in pregnant women: a longitudinal study." British Journal of Nutrition. Vol. 102, Issue 6, pp. 876-881. September, 2009.