VITAMIN D – THE SUNSHINE VITAMIN

As the daylight hours become less and less, I am reminded to take my Vitamin D supplements. This reminds me to remind you to take your Vitamin D supplements. Studies show that 40-60% of the US population is vitamin D deficient. The following are some of the interesting subjects regarding Vitamin D.

Bone Strength:

Vitamin D isn't a traditional vitamin -- it's actually a pre-cursor to an important steroid hormone in your body called calcitrol that affects calcium and the way your body uses it. Many scientific studies suggest that the number of fractures in people with osteoporosis can be reduced by 50% -- or more -- simply by making sure that everyone has an adequate blood level of vitamin D.

Chronic Pain:

According to the *British Journal of Nutrition (September 2011),* older men and women suffering from moderated to extreme chronic pain are likelier than others to have decreased vitamin D levels.

Vasant Hirani of University College London Medical School reported the outcome of an analysis of serum 25-hydroxy vitamin D levels and pain in 2,070 men and women aged 65 years and older who took part in the 2005 annual Health Survey for England, which assessed health and health-related behaviors in children and adults. Demographic information, medication and supplement use, illnesses, pain symptoms and other data were obtained from interview responses.

Fifty-three percent of the respondents reported experiencing moderate or extreme pain or discomfort. Of these subjects, 80 percent had long-standing illnesses and 60 percent had been diagnosed with musculoskeletal conditions.

Dr. Hirani notes noted that previous studies have found a reduction in pain among individuals who supplemented with vitamin D, and that the active form of the vitamin may play a role in reducing inflammation.

Depression:

Chronic inflammation in your body disrupts the normal functioning of many bodily systems, and can wreak havoc on your brain and possibly cause depressive symptoms.

This is one more route by which vitamin D is important for your mood and brain health, as vitamin D will help reduce systemic inflammation. Vitamin D deficiency is actually more the norm than the exception and this can impact far more than your mental health. Optimizing your vitamin D levels could help you to prevent at least 16 different types of cancer, along with heart disease, diabetes, Alzheimer's, the flu and much, much more.

Summary of a study regarding Depression:

- Women with the highest intakes of vitamin D were significantly less likely to suffer from depressive symptoms

- Vitamin D may affect the function of dopamine and nrepinephrine, neurotransmitters that are likely involved in depression
- Vitamin D modulates inflammation in your body, which is also linked to depression
- Optimizing your vitamin D levels through proper sun exposure, use of a safe tanning bed or vitamin D3 supplementation may be an important step to protect your mental and emotional health

Study Participants Needed: Get Your Vitamin D Tested at Home

You can become a participant in the still ongoing Grassroots Health D*Action study, which is evaluating vitamin D's impact on your *overall* health status.

When you join D*action, you agree to test your vitamin D levels twice a year during a five-year program, and share your health status to demonstrate the public health impact of this nutrient. There is a $60 (normally $75) fee each 6 months ($120/year) for your sponsorship of the project, which includes a complete new test kit to be used at home, and electronic reports on your ongoing progress.You don't have to do it every 6 months if you don't want to.

Even if you choose not to join the study you can download a very interesting chart called “Disease Incidence Prevention by Serum 25 (OH) D Level”. You can find this chart on their home page grassrootshealth.net down on the right side of the page. If you can't find it, email me and I will send it to you directly.

You will get a follow up email every six months reminding you "it's time for your next test and health survey." To join now, please follow this link to the sign up form.

You may want to consider joining this study not only because you'll be helping to create awareness about the profound importance of vitamin D for optimal health, but also because it's an ideal way to test and monitor your own vitamin D levels, which is highly recommended.

Table of foods containing Vitamin D

Food	I U Per Serving
Cod liver oil 1 tablespoon	1360
Salmon (sockeye), cooked, 3 ounces	447
Mackerel, cooked, 3 ounces	388
Tuna fish, canned in water, drained, 3 ounces	154
Orange juice fortified with vitamin D, 1 cup (check product labels, as amount of added vitamin D varies)	137
Milk, nonfat, reduced fat, and whole, vitamin D-fortified, 1 cup	115-124
Yogurt, fortified with 20% of the DV for vitamin D, 6 ounces (more heavily fortified yogurts provide more of the DV)	88
Liver, beef, cooked, 3.5 ounces	49
Sardines, canned in oil, drained, 2 sardines	46
Egg, 1 large (vitamin D is found in yolk)	41
Cheese, Swiss, 1 ounce	6

Sun exposure:

Most people meet at least some of their vitamin D needs through exposure to sunlight. Ultraviolet (UV) B radiation with a wavelength of 290–320 nanometers penetrates uncovered skin and converts cutaneous 7-dehydrocholesterol to previtamin D_3, which in turn becomes vitamin D_3. Season, time of day, length of day, cloud cover, smog, skin melanin content, and sunscreen are among the factors that affect UV radiation exposure and vitamin D synthesis.

Perhaps surprisingly, geographic latitude does not consistently predict average serum 25(OH)D levels in a population. Ample opportunities exist to form vitamin D (and store it in the liver and fat) from exposure to sunlight during the spring, summer, and fall months even in the far north latitudes.

Complete cloud cover reduces UV energy by 50%; shade (including that produced by severe pollution) reduces it by 60% . UVB radiation does not penetrate glass, so exposure to sunshine indoors through a window does not produce vitamin D. Sunscreens with a sun protection factor (SPF) of 8 or more appear to block vitamin D-producing UV rays, although in practice people generally do not apply sufficient amounts, cover all sun-exposed skin, or reapply sunscreen regularly . Therefore, skin likely synthesizes some vitamin D even when it is protected by sunscreen as typically applied.

The factors that affect UV radiation exposure and research to date on the amount of sun exposure needed to maintain adequate vitamin D levels make it difficult to provide general guidelines. It has been suggested by some vitamin D researchers, for example, that approximately 5–30 minutes of sun exposure between 10 AM and 3 PM at least twice a week to the face, arms, legs, or back without sunscreen usually lead to sufficient vitamin D synthesis and that the moderate use of commercial tanning beds that emit 2%–6% UVB radiation is also effective. Individuals with limited sun exposure need to include good sources of vitamin D in their diet or take a supplement to achieve recommended levels of intake. (NHI website –http://ods.od.nih.gov/factsheets/vitamind#h3).

Our Northern latitude (north of San Francisco) does mean that we get zero exposure to the UVB this time of year. For those of you south of San Francisco, my guess is that you probably will not get enough body exposure to generate enough Vitamin D either. So we have to supplement with food or pills!

How Much Vitamin D should you take?

Normal blood levels of vitamin D3, as measured by the blood test serum 25(OH)D, is between 32-100 ng/mL. Researchers believe that at least a 40 ng/mL serum level is optimal. 2,000 IU of vitamin D is the lower recommendation that may elevate blood levels to above 32 ng/mL. 4,000 IU of vitamin D is considered the typical dose to get blood levels to 40 ng/mL. However, 8,000-10,000 IU of vitamin D3 may be necessary to achieve optimal levels of 25(OH)D. 10,000 IU daily of supplemental vitamn D3 has been established as safe and tolerable.

I hope that you, the readers of Earthing The Spirit newsletter have enjoyed my writings, or at least found them useful. If you would like to receive my articles directly, please email me at drbontravis@gmail.com and let me know by typing “subscribe” in the subject box.

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If you have any questions that you would like me to address in this newsletter,
please email them to me at drbontravis@gmail.com.

Dr. Travis has dedicated herself to the total health and well-being of each individual patient, she offers primary health care services through modern Chiropractic healing methods. Techniques include gentle and non-force according to the individual patient’s needs. Services include spinal manipulation, physical therapy modalities, diet, nutritional, herbal and hormonal counseling.
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