

# KAPLAN HEALTH AND WELLNESS

HOLISTIC HEALTHCARE FOR BODY, MIND AND SPIRIT

1415 Lilac Dr. N. Suite 190 Golden Valley, MN 55422 763-746-9000  
kaplanhealthandwellness@earthlink.net

October 2005 Volume 2, Issue 10

The topic for the August KHAW newsletter was the use of essential oil supplementation and cutting edge thinking regarding balanced supplementation of these oils. In receiving feedback, many of you requested information on the basic nutritional supplements I recommend for almost everyone. Obviously, of greatest importance is a healthy diet. Supplements are additional insurance to an already good diet. No amount of vitamins, minerals and herbs will counteract the damage caused by a diet high in sugar, fat, fried foods, refined grains and junk foods. I prefer for my patients to add healthy foods to their diets before reducing or eliminating junk food, sugar, caffeine, deep fried foods, etc.

With that caveat in mind, I recommend a good multi-vitamin/mineral (without iron for men and post menopausal women), a balanced essential fatty acid supplement, magnesium and vitamin D to almost everyone. This newsletter will explore the uses of vitamin D and why I feel it so essential for almost everyone.

## Vitamin D - The Sunshine Vitamin

Most people know that vitamin D is essential for the absorption of calcium into the body. And as a result, it is very important for strong bones and the prevention of osteopenia and osteoporosis. The factors leading to weak bones are complex; however, because the daily need for vitamin D has been vastly underestimated, vitamin D insufficiency is certainly a factor. The current RDA for vitamin D for infants is 300 IU/day, 400 IU/day for children and 400 IU for adults up to 25 years old and 200 IU for adults over age 25. This level of supplementation seems grossly inadequate in light of the newest information.

Vitamin D is not just a vitamin; it acts more like a hormone. When assessing all the functions of Vitamin D (not just calcium balance), scientists were off by a factor of 3-20X in guesstimating our true needs. The newest studies show that infants need about 1000 IU, children 2000 and adults 4000 IU of Vitamin D per day.

### Inside This Issue

Vitamin D - The Sunshine Vitamin	1
Should I Be Tested?	2
Do I Need To Supplement With Vitamin D?	2
How Safe is Vitamin D Supplementation?	2
Important Announcement	2
First Thursday Meditation	2

Full body exposure on clear days at the equator can easily provide 10,000 IU/day of Vitamin D indicating that this is a safe, non-toxic level.

There are two sources of Vitamin D, diet and sunlight. UV sunlight activates **cholesterol** in our skin which gets converted to Vitamin D3 after traveling to the liver and kidneys. Vitamin D2 is added to foods like milk and is produced by irradiating fungi. It is much less efficient than D3. Vitamin D travels to every cell in the body entering the nucleus and impacting genetic expression. Because there are Vitamin D receptors on just about every cell, it affects our entire body, not just our bones. Unfortunately for those of us who live in Minnesota (latitude 45 degrees), during most of the year the UV light loses so much energy as it passes through the atmosphere that it is unable to trigger the conversion of cholesterol to vitamin D. Combine that fact with the irrational fear of the sun drummed into us for the past 30 years, we apply sun screen every chance we get. Sunscreen with an SPF 8 decreases vitamin D synthesis by 97.5%. This also prevents the activation of cholesterol to vitamin D. Finally, most of us are indoors when the sun is high enough in the sky to activate the process. For all these reasons, most of us are insufficient in vitamin D.

Vitamin D insufficiency has been linked to osteoporosis, osteopenia, heart disease, high blood pressure, diabetes, arthritis, depression, epilepsy, migraine headaches, musculo-skeletal pain unresponsive to chiropractic adjustments, periodontal disease, auto-immune diseases (multiple sclerosis, rheumatoid arthritis, psoriasis, lupus, Crohn's disease) and some cancers (colon, breast, prostate, melanoma). In North America, MS prevalence is lowest in the southern states, becomes higher in the northern states and is highest in Canada.

### Should I Be Tested?

Anyone diagnosed with any of the diseases mentioned above or at risk for those diseases because of family history, genetics or lifestyle should be tested. People living above 40° latitude (includes Minnesota), have highly pigmented skin like African Americans, do not expose their skin to the sun daily (like Muslim women dressed traditionally) should be tested.

In a study done at the University of Minnesota, 93% of patients tested deficient. In sunny Saudi Arabia, 83% of patients with low back pain were deficient. In a recently published study done at the HealthEast Osteoporosis Care Clinics in Woodbury, MN, 76 out of 78 patients admitted for fractures had blood vitamin D levels in the deficient range. Those taking vitamin D at 400 IU/day had an average blood level slightly higher than those not supplementing but they were still deficient.

### Do I Need To Supplement With Vitamin D?

A blood test is the best way to assess Vitamin D status and the proper test is called 25-hydroxycholecalciferol. Currently, laboratory ranges are based on the idea of preventing frank deficiency diseases and not the promotion of optimal health. This is a very important point. Perhaps the current recommendations are enough to prevent rickets, but how many of us are diagnosed with osteopenia or osteoporosis? These laboratory values can mislead practitioners unless they are aware of current research. Most researchers specializing in vitamin D are now suggesting that a blood value of 40-80 ng/mL is optimal. Laboratories will only flag values lower than 20 ng/mL as a problem. Therefore, if your doctor says your Vitamin D is normal, you should always ask for the exact number and remember, doctors are looking for the presence of disease and not health.

### How Safe is Vitamin D Supplementation?

In Finland, until 1964 the recommended daily intake of Vitamin D for infants was 4,000-5000 IU, a dose that was proven safe and was associated with significant protection from Type 1 diabetes. More recently, a study involving over 10,000 infants and children, daily administration of 2,000 IU/day was safe and effective for reducing the incidence of type 1 diabetes by 80%. Thus, for infants and children doses of 1000-2000 IU/day are safe.

Hollis and Wagner looking at Vitamin D safety and pregnancy wrote, "Thus there is no evidence in humans that even 100,000 IU/day dose of Vitamin D for extended periods during pregnancy results in any harmful effects. They conclude by saying that up to 4000 IU/day is necessary for pregnant women.

Studies done on adults with 10,000 IU/day for 20 weeks were completely safe with no signs of toxicity. Given that full body exposure to sun at lower latitudes can produce greater than 10,000 IU/day and that 4000 IU/day is safe and meets physiological requirements in adults, I recommend 4000-5000 IU/day for most adults.

Symptoms of Vitamin D toxicity are caused by excess calcium in the blood. Therefore, when supplementing with Vitamin D, a blood test for calcium (almost always checked during an annual exam) should be done 1-2 times a year. Symptoms of Vitamin D toxicity are: nausea, headaches, constipation, kidney stones, mental confusion and heart arrhythmias.

Some patients should not supplement with Vitamin D or do so only under careful supervision. This category would include patients with primary hyperparathyroidism, tuberculosis, Crohn's disease, sarcoidosis and some other diseases as well as those patients on a variety of drugs like some diuretics, coumadin, warfarin and others. On the other side of the coin, some drugs deplete Vitamin D or interfere with its absorption and people taking these drugs should probably supplement. Examples of these drugs are many anticonvulsants, cimetidine, corticosteroids, heparin, neomycin and others.

I find one particular trend very disturbing. With the discovery of the statin family of drugs to lower cholesterol, there is an increasing push to lower total cholesterol to extremely low values. Because Vitamin D (as well as cortisol, testosterone, progesterone and estrogen) is derived from cholesterol, the use of these drugs can induce insufficiency and disturb hormonal balance. Cholesterol values below 160 mg/dL have been associated with increases in suicide and cancer. In addition, the statin drugs interfere with the production of an important nutrient called CoQ10. Ironically, CoQ10 is essential for healthy heart function. Anyone taking lipitor, crestor, pravachol, lovastatin or any other statin drug should supplement with CoQ10 daily.

---

## IMPORTANT ANNOUNCEMENT

Beginning with the December issue, we will no longer be sending the Kaplan Health and Wellness newsletter by (snail) mail. However, we will continue writing the newsletter and informing you of workshops, lectures and events by e-mail. If you would like to continue receiving up-to-date, informative and entertaining issues of the newsletter, please drop us a note at [kaplanhealthandwellness@earthlink.net](mailto:kaplanhealthandwellness@earthlink.net).

### First Thursday Meditation

Everyone is invited to our first Thursday of the month meditation led by Hans Schumacher. The upcoming dates are October 6 and November 3. Meditation time lasts an hour and begins at 7:00 P.M.