

Vitamin D

Winter Blues

Dr. Gordon R. Gensel, DC, CNC

November 2007

Announcements

Upcoming Classes:

**Healthy Cooking Made Simple –
cook, learn and eat! (Dinner is
included)**

**Speaker: Dr. Gordon R. Gensel,
DC, CNC**

November 13, 2007

6:00-8:00 p.m.

Location: Casanova Oak Knoll
Park Center, 735 Ramona Ave.,
Monterey
646-5665

Fee: \$30 Monterey City Resident
\$39 Other City Resident

Pre-register at the Monterey
Recreation & Community
Services, 546 Dutra St., Monterey

This fall we are concentrating our newsletter efforts on battling those winter blues. In its most extreme form, Seasonal Affective Disorder (SAD) is prevalent when Vitamin D stores are low. SAD is associated with mood changes such as depression and anxiety, carbohydrate cravings, insomnia, and lethargy which increase during the winter months.

Commonly known, Vitamin D's most important role is maintaining blood levels of calcium and phosphorus which are responsible for skeletal health. However, recent clinical and epidemiological studies suggest that vitamin D deficiency may play a role in several conditions unrelated to bone including SAD, prostate cancer, breast cancer, colon cancer, heart disease, hypertension, multiple sclerosis, and type 1 diabetes.^{1,2,3}

Who's at risk for deficiency?

Sunlight increases vitamin D synthesis in the body when exposed to bare skin. Those who restrict their sunlight and who have a chronic habit of using sunscreen are typically deficient. The use of a sunscreen with SPF as low as 15 reduces the rate of vitamin D production by 99.9%.¹ Living in an area with a lot of atmospheric pollution, which can block the sun's ultraviolet rays, also appears to increase the risk of vitamin D deficiency.¹

Strict vegetarians, alcoholics, those with dark skin and people with liver or kidney disease are also at high risk for Vitamin D deficiency. Those with darker skin tones merely need to stay in the sun longer than lighter skinned people in order to get the same amount of natural Vitamin D production.

In addition, Vitamin D deficiency is very common in people with digestive disorders (i.e. celiac disease, Crone's disease, IBS, etc.). One in seven adults has been reported to be deficient in vitamin D.⁴ In one study, 42% of hospitalized patients under age 65 were reported to be vitamin D deficient.⁵ In this same study, even though the subjects were eating the currently recommended amounts of Vitamin D, 37% of them were still found to be deficient. Age-related decline in vitamin D status may be due to reduced absorption, transport, or liver metabolism of vitamin D.⁶

Medications known to cause Vitamin D deficiency: Anticonvulsants; Bile Acid Sequestrants (Cholestyramine, Prevalite, Questran); Cimetidine (histamine blocker); Colestipol; Estrogens (Combined); Flurbiprofen (NSAID); Gabapentin; Heparin; Hydroxychloroquine (Plaquenil); Indapamide; Isoniazid; Mineral Oil; Neomycin; Oral Corticosteroids; Orlistat; Phenobarbital; Sodium Fluoride; Valproic Acid.

Roasted Salmon with Lemon Relish

¼ cup pine nuts
¼ cup raisins
Slivered zest and juice of 1 lemon
4 salmon fillets (6oz each)
Salt and pepper
¼ cup chopped parsley
3 tablespoons olive oil
5 ounces baby spinach
(about 5 cups loosely packed)

Remember to use organic ingredients when possible.

Preheat oven to 450°. Spread pine nuts on a rimmed baking sheet; toast in oven, tossing occasionally until lightly golden, 5 to 7 minutes. Remove from sheet, and reserve. Place raisins and lemon zest in a small bowl; cover with boiling water. Set aside. Place salmon fillets on the baking sheet used to toast pine nuts; season with salt and pepper. Roast until salmon is opaque throughout, 8-10 minutes. Drain and discard liquid from raisins and lemon zest. Return raisins and zest to bowl; add lemon juice, pine nuts, parsley, and oil. Season with salt and pepper; stir to combine. Dividing evenly, make a bed of spinach on each of the four plates; place salmon fillet on spinach; spoon lemon relish over the top.

Don't Guess About Your Health... Schedule a Nutritional Consultation Today!

Gensel Nutrition Center is located at 660 Camino Aguajito, Suite 100, in Monterey, California.

To make an appointment for a nutritional consultation, please call 831-649-6336 or email gensel@redshift.com.

Gensel Nutrition Center provides this monthly newsletter free of charge. If you would like to sign up to receive our monthly newsletter and announcements via email, please contact us at: gensel@redshift.com.

Federal Law requires that we warn you of the following:

1. The information provided in this article is for educational purposes only.

2. Your individual health status and any required health care treatments can only be properly addressed by a professional healthcare provider of your choice. Remember: There is no adequate substitution for a personal consultation with your chosen health care provider. Therefore, we encourage you to make your own health care decisions based upon your research and in partnership with a qualified health care professional.

If you are receiving duplicates of this email or would like to be removed from this distribution list, please email gensel@redshift.com and we can solve the issue.

How Much To Take?

The best source of vitamin D is bare skin exposure to sunlight with no sunscreen. Naturally, this goes against our sun-phobic society. Sun exposure causes skin cancer, right? We encourage you to re-read and review our March 2005 Melanoma newsletter. If you need it just email us at gensel@redshift.com and we will send it to you.

Great food sources of vitamin D include fatty fish such as mackerel, salmon and fish liver oils such as cod liver oil. Trace amounts are also found in egg yolks.

What type of Vitamin D should I take? Vitamin D₃, also known as "cholecalciferol". Avoid "ergocalciferol" or "D2" as this is the synthetic form.

How much Vitamin D should I take? Most critical to the answer of this question is to get tested. How can you possibly know what you need unless you know your individual vitamin D status? You can get this simple blood test through our office. A 25-Hydroxy Vitamin D blood test <32 ng/mL has been shown to impair intestinal calcium absorption and subsequent skeletal density.⁷ Further studies have shown that Vitamin D blood levels <32 ng/mL are associated with impaired insulin resistance and beta-cell function.⁷ Optimal levels are 50-90 ng/mL.

If you do experience SAD, totally avoid the sun or have a higher risk of deficiency as explained on the previous page and want to give Vitamin D a try, 5000IU per day would be sufficient. You cannot get enough Vitamin D from fortified foods and a multi-vitamin. Most of us make about 20,000 units of vitamin D after about 20 minutes of summer sun. This is about 100 times more vitamin D than the government says you need every day.⁸ If you do spend plenty of time outdoors in the summer, you may reduce this dosage during the summertime.

Did you try the Fresh Start Diet we recommended in last month's newsletter? We would love to hear of your experience. Please send your comments to gensel@redshift.com. If you missed last month's newsletter you can email us and we will send it to you.

References:

1. Holick MF and Jenkins M, *The UV Advantage: The Medical Breakthrough That Shows How to Harness the Power of the Sun for Your Health*, New York, NY: iBooks, 2003.
2. Endres DB and Rude RK, "Mineral and Bone Metabolism," *Tietz Textbook of Clinical Chemistry*, 3rd ed, Burtis CA and Ashwood ER, eds, Philadelphia, PA: WB Saunders, 1999, 1395-457.
3. Holick MF, "Vitamin D: A Millenium Perspective," *J Cell Biochem*, 2003, 88(2):296-307.
4. Chapuy MC, Preziosi P, Maamer M, et al. Prevalence of vitamin D insufficiency in an adult normal population. *Osteoporos Int* 1997;7:439-43.
5. Thomas MK, Lloyd-Jones DM, Thadhani RI, et al. Hypovitaminosis D in medical inpatients. *N Engl J Med* 1998;338:777-83.
6. Harris SS, Dawson-Hughes B, Perrone GA. Plasma 25-hydroxyvitamin D responses of younger and older men to three weeks of supplementation with 1800 IU/day of vitamin D. *J Am Coll Nutr* 1999;18:470-4.
7. Hollis BW, "Circulating 25-Hydroxyvitamin D Levels Indicative of Vitamin D Sufficiency; Implications for Establishing a New Effective Dietary Intake Recommendation for Vitamin D," *J Nutr*, 2005, 135(2):317-22.
8. www.vitamindcouncil.com