

# THE UPLINK

*Merging Contemporary Chiropractic Neurology and Nutritional Biochemistry in the Tradition of Applied Kinesiology*

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## VITAMIN D - THE OLD AND THE NEW

You have heard a lot about Vitamin D in the past couple of years and some of this will be reviewed below. But the questions remain: How do you use Vitamin D in an AK practice? And in particular, Where does Vitamin D fit in the **QA Clinical Protocol**?

### THE OLD: VITAMIN D vs. EFA (VITAMIN F)

“In the old days” we used to think that Vitamin D was important only for calcium metabolism and bones. Vitamin D toxicity was a concern. Essential fatty acids were referred to as a group as Vitamin F.

Vitamin D and Vitamin F are antagonists regarding their effects on calcium. Vitamin D tends to increase calcium in the blood while EFAs are necessary to allow calcium to enter the soft tissues of the body (such as muscles and skin.) As we used to say, vitamin D pulls calcium into the blood and Vitamin F pulls calcium into the soft tissues.

Although it has been found in recent years that it is extremely difficult to overdose with oral Vitamin D, it is still possible to get an excess Vitamin D exposure from *excess* sun (like sunburn – not regular sun exposure which is extremely important) resulting in imbalances between F and D and hence, intracellular and extracellular calcium. The result of acute excess sun exposure pulls calcium out of the soft tissues and creates “Soft Tissue Calcium Deficiency Symptoms.” See the following list:

1. Any excess sun exposure symptoms
2. Canker sores
3. Cold sores (oral herpes simplex), lip, cheek, and tongue sores & ulcers
4. Genital herpes simplex
5. Sore muscles – especially after exercise
6. Hives and general itchy skin including pruritus ani

Treatment is ionizable calcium (lactate, citrate), EFA, and hydrochloric acid.

### THE NEW: VITAMIN D FOR MOST TISSUES

Vitamin D is, in reality, a hormone, not a vitamin. Pre-vitamin D is activated in the skin by the sun (UV-B) to D-3 (cholecalciferol). D-3 is activated (hydroxylated) in the liver to 25-hydroxy D-3 or 25(OH) D. 25(OH) D is further activated to 1,25 dihydroxy D or 1,25(OH) D by many (15 and counting) organs. It has been found that this last conversion is essential for the health of these tissues.

### WHO SHOULD BE TESTED FOR VITAMIN D?

The conversion of 25(OH) D → 1,25(OH) D has a cell growth regulating effect. Cancer in the prostate, breast, colon, lung, and other organs has been associated with low Vitamin D levels, measured as blood 25(OH) D. It has been estimated that in US alone, increased sun exposure would decrease internal cancers by 185,000 per year and decrease deaths from these cancers by 30,000! Other problems associated with a low Vitamin D include:

- Osteoporosis and other metabolic bone diseases
- Autoimmunity: MS, RA, Type 1 diabetes, others

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- Infectious disease
- Mental health issues: Seasonal Affective Disorder, PMS, depression, general mood
- Hypertension and heart disease
- Obesity
- Persistent, nonspecific musculoskeletal pain
- Low Back Pain, and more...

Hypovitaminosis D incidence is estimated to be present in 20% to 80% of Americans, at least during winter months. In Calgary, Alberta, virtually 100 percent of the population is vitamin D deficient at least part of the year (winter.) Hence, patients' Vitamin D levels should be checked seasonally.

### **WHAT IS A GOOD VITAMIN D DOSE?**

Experts vary on dosage from 1000 IU/day to 5000 IU/day. German ICAK Diplomate Wolfgang Gerz, MD pointed out in an excellent paper at the 2005 International ICAK meeting in Toronto that Vitamin D must be also matched by adequate levels of other bone growth nutrients. He tests for Vitamin D in conjunction with Calcium, Magnesium, Zinc, Copper, Vitamin C, Potassium, and Selenium. Gerz points out that a weakening response to oral Vitamin D testing may represent a deficiency of one or more of these other nutrients rather than a Vitamin D toxicity.

### **VITAMIN D AND THE QA PROTOCOL**

The traditional AK indicators for Vitamin D (weaknesses of the quadriceps and the TFL) are useful. However, due to Vitamin D's immune system role, we also recommend that you routinely test for Vitamin D during **QA** Steps 9, 10, & 11 when testing immune system related muscles.

■ **QUINTESENTIAL APPLICATIONS – ATLANTA** will begin on January 19-20, 2008 on campus at Life University in Marietta, GA. Sessions 1 through 7 have been scheduled and Dr. Schmitt and Dr. Kerry McCord will share teaching duties. See the Seminar Schedule for dates. The **QA** Level 1 Proficiency exam will be given at the end of Session 7 for those who have attended or purchased the DVDs of all seven sessions. This is the only on-site offering of the **QA** program scheduled at the moment. Chiropractic continuing education credits are available for a number of states. Call Michelle and/or see **www.theuplink.com** for more details.

■ **VITAMIN D & MUSCLE TENSION** - In addition to observing a muscle strengthening response to Vitamin D, try the following with your patients:

1. Test general muscle tension by deep palpation
2. Have the patient chew a source of Vitamin D
3. Recheck the general muscle tension. Any changes?

■ **NEW LAB NORMALS FOR VITAMIN D:** Old 25(OH) Vitamin D Laboratory normals were 20-56 ng/ml. New reference ranges from LabCorp are:

- Deficiency – 0-5 ng/ml
- Insufficiency – 5-20 ng/ml
- Hypovitaminosis – 20-40 ng/ml
- Sufficiency – 40-100 ng/ml
- Toxicity - >100 ng/ml

Cost: About \$39 (See immediately below)

■ **NEED A DISCOUNT LABORATORY?** There are a number of new laboratory resources coming available. One that we have been very happy with is Professional Co-op: 866-999-4041 and **www.professionalco-op.com**. Professional Co-op uses the services of the major national reference laboratory LabCorp. **You do NOT have to draw blood in your office** – there are many drawing sites around the country.

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■ **SUN BLOCKERS' EFFECTS ON VITAMIN D** synthesis:

- SPF 8 blocks body vitamin D production by 97.5%
- SPF 15 blocks vitamin D production by 99.5%

■ **FOOD SOURCES OF VITAMIN D** include:

- Fortified milk: 8 ounces contain approximately 100 IU of vitamin D. However, it is often D-2 (ergocalciferol) – an inferior Vitamin D source.
- Cod liver oil: 1 tablespoon contains approximately 1300 IU of vitamin D
- Cold-water fish. e.g., salmon and herring: 3 ounces contain approximately 400 to 750 IU of vitamin D, respectively.

■ **ADDITIONAL VITAMIN D RESOURCES**, and references may be found on our web site, **www.theuplink.com** under “Guides” at the bottom of the home page. Several pages of notes on Vitamin D and related clinical information will be found there.

■ **CAN'T ATTEND QA ATLANTA SESSIONS?** If you are unable to attend the **QA** sessions in person, you can **ENROLL AT HOME** and still qualify for the Level 1 Proficiency exam by purchasing and watching the DVDs of any or all missed sessions. There is a brief **QA** Level 1 Practical Exam that must be taken in person, but other than that, Registered Buyers of the **QA** BOOK, **QA** AUDIO CDs, and **QA** DVDs can qualify for the **QA** Level 1 and 2 Proficiency Exams. To promote the study of **QA** in your own home or office with the DVDs of all 15 Sessions, we are making the following special offer.

***THIS ISSUE'S SPECIAL OFFER!***

**“Quintessential Applications”  
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**\$599**  
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*Includes US Shipping & Handling*

Call (919) 419-9099 or Fax order form to (919) 419-9049  
Offer ends January 31, 2008

■ **7<sup>th</sup> ANNUAL WAT SKI SEMINAR IN TAOS, NM** Drs. Wally Schmitt, Andy Specht, and Tom Rogowsky will teach their popular WAT Ski Seminar again on January 24, 25, & 26 2008 at the Alpine Village Suites in Taos Ski Village. Wally: "Making Spinal Corrections Hold." Andy: "Clinical Kinesiology Gems." Tom: "New Connections Between Endocrine, Liver, & Digestive Functions." Register now – Seminar space and hotel space are both VERY limited. See **www.theuplink.com** for details. Contact Michelle to register.

■ **THE 14<sup>th</sup> ANNUAL SKI WITH WALLY** seminar topic will be “The Immune System—Over and Under.” Our immune systems defend us, but can also destroy us. Immune function can be too low, overactive or combinations of both. You will learn new procedures for identifying the immune status in your patients and new powerful techniques for controlling infections, allergies, inflammatory conditions and autoimmune problems.

Ski in / ski out at the Sheraton Hotel in Steamboat Springs, CO. Hotel rooms are almost sold out so contact Claudia *immediately* for hotel reservations: (800) 937-3878 or e-mail: [Claudia@trumprtravel.com](mailto:Claudia@trumprtravel.com). Contact Michelle to register.

■ **“BEYOND IRT” DVDs NOW AVAILABLE:** Professionally recorded DVDs of *Beyond IRT: The Neurological Consequences of Injury (Including AK Biofeedback)* were produced at the Philadelphia seminar in September, 2007. Use these techniques in daily practice to correct both routine and difficult spinal and limb problems. \$325 includes Notes. See Order Form.

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