

## **Your Daily Dose - What to Know About Vitamin D<sub>3</sub>.**

Vitamin D<sub>3</sub> is a fat soluble hormone as well as a vitamin that is found in some food sources, but most of our daily requirements are created in our bodies by sun exposure. The food sources of Vitamin D<sub>3</sub> are highly variable and most often inadequate for our daily needs. Casual exposure is necessary to help produce what our bodies need. It is clear that a large number of people are Vitamin D<sub>3</sub> deficient, and may need oral supplementation to adequately address this. The Registered Naturopathic doctors at the Armstrong Clinic are trained in Orthomolecular Nutrition, or therapeutic prescription of vitamins and minerals. Vitamins, when used in safe and correct doses, can be used to clear symptoms and prevent disease from occurring.

Some variables that affect our production of Vitamin D<sub>3</sub> include:

### **Sunscreens**

SPF 15 applied correctly decreases Vitamin D<sub>3</sub> production by 99%

### **Skin Melanin**

- Melanin increases the production of the vitamin with sun exposure
- To produce the equivalent amount of Vitamin D<sub>3</sub>, African Americans may require 10-50 times more exposure than Caucasians
- 42% of African American women 15-49yrs. Throughout U.S.A. were Vitamin D<sub>3</sub> deficient at the end of winter
- A study on Vitamin D<sub>3</sub> levels done in the Elderly in Boston showed that 30% whites, 42% Hispanic, and 84% African Americans were Vitamin D<sub>3</sub> Deficient (Am J Clin Nutr 2004;79:362-71 MF Holick)

### **Latitude, Season, Time of Day**

- $\geq 35^\circ$  Latitude in Winter, later afternoon sun and early morning sun do not allow us to make adequate amounts of Vit D<sub>3</sub>. Considering that most of Canadians live north of the 49th, this also means most Canadians are deficient in Vitamin D by the end of each winter.
- Ozone absorbs the pre-Vitamin D<sub>3</sub> producing UVB photons
- Residents in Boston (42°), Edmonton (52°) and Bergen (62°) cannot produce sufficient Vitamin D<sub>3</sub> in their skin for 4, 5, and 6 months respectively.
- 32% of healthy adults 18-29 y.o. were Vitamin D<sub>3</sub> deficient in Boston at the end of winter.

### **Vitamin D deficiency**

An obvious deficiency of Vitamin D<sub>3</sub> has been shown to cause Rickets, Osteoporosis and increase bone fracture rates. A mild deficiency of Vitamin D<sub>3</sub> has shown to increase the risk of developing Colo-rectal, Breast, Prostate, Lung, and Lymphatic Cancers.

Other conditions to which Vitamin D<sub>3</sub> Deficiency is also linked:

Poor Oral Health  
Cardiovascular Disease  
Obesity  
Multiple Sclerosis and Rheumatoid Arthritis  
Tuberculosis

Insulin Resistance and Type 1 Diabetes  
Osteoarthritis  
Hypertension  
Asthma  
Seasonal Affective Disorder

#### What is the Recommended Dose of Vitamin D<sub>3</sub>?

- ❖ A study completed by Hathcock, Shao, Vieth & Heany and published in 2007 (Hathcock, Shao, Vieth & Heany. Am j Clin Nutr. 2007;85(1):6-18) showed that “The strong design characteristics and absence of adverse effects in the clinical trials at 250µg Vit D<sub>3</sub>/d (**10, 000 IU**) and the absence of adverse effects at higher as well as lower doses justify the selection of 250µg Vit D<sub>3</sub>/d (**10, 000 IU**) as the NOAEL (No Observed Adverse Effect Level).
- ❖ Vitamin D<sub>3</sub> overdose can lead to excess serum Calcium levels. This can cause pain, conjunctivitis, anorexia, fever, chills, thirst, vomiting and weight loss.
- ❖ Your Registered Naturopathic Doctor takes into account an individual patients needs. Blood lab testing, an accurate case taking and knowledge of other medications and supplements taken by a patient is critical to determine safe Vitamin D<sub>3</sub> supplementation levels.
- ❖ The above mentioned dose is what recent research has reported, but may not be safe for certain individuals. Blood testing, an accurate case taking and knowledge of other medications and supplements taken by a patient is critical to determine safe Vitamin D<sub>3</sub> supplementation levels. It is clear that a large number of people are Vitamin D<sub>3</sub> deficient, and may need oral supplementation to adequately address this. The Registered Naturopathic doctors at the Armstrong Clinic are trained in Orthomolecular Nutrition: the therapeutic prescription of vitamins and minerals. Vitamins, when used in safe and correct doses, can be used to clear symptoms and prevent disease from occurring.

#### What is my Vitamin D status?

The testing of your Vitamin D<sub>3</sub> status is important to determining your necessary dosage. The Armstrong Clinic offers Vitamin D<sub>3</sub> testing for all patients.

## CHEMICALS AND SYNTHETICS TO AVOID IN PERSONAL CARE PRODUCTS

- 1) **AHA (alpha hydroxyl acid):** skin is exfoliated instead of mechanically via abrasion, dries and increases skin aging. Supposed to be anti-wrinkle, found in many skin and hair care products. Used as a solvent originally in cleaning compounds and for tanning leather. A smooth finish is developed by stripping the outer layer of the skin, irritated skin can puff up.
- 2) **Acetamide MEA:** Used in lipsticks and cream blusher to retain moisture, causes adverse reactions, carcinogenic, mutagenic and toxic.
- 3) **Alkyl-phenol-ethoxylades:** Mimics estrogen. Used in shampoo, carcinogenic, mutagenic, toxic. Causes adverse reactions. Reduces sperm count.
- 4) **Ammonium laureth sulphate:** Found in hair and bubble bath products. Laureth contains ether that is listed as carcinogenic, mutagenic, toxic and causes adverse reactions.
- 5) **Aluminum:** Used as colour additive in cosmetics, especially eyeshadow. Listed as carcinogenic, toxic and mutagenic.
- 6) **Alcohol:** Acts as carrying and antifoaming agent. Fast drying, water and oil solvent. If synthetically produced is carcinogenic, mutagenic, toxic and adverse reactions.
- 7) **Bentonite:** Used in facial mask, makeup, face powder. Supposed to draw out toxins and claimed to be non-toxic, but rats died when injected with it.
- 8) **Benzene:** Found combined with other chemicals in many personal care products and is a known bone-marrow poison. Carcinogenic, mutagenic, toxic and causes adverse reactions.
- 9) **Coal Tar:** Many kinds of shampoo designed to treat dandruff & flaky scalp contain it. Disguised with names FD, FDC or FD&C colour. Coal tar causes potentially severe allergic reactions, asthma attacks, fatigue, nervousness, headaches, nausea, lack of concentration, cancer.
- 10) **Cocamide DEA:** Nitrosamines can form in all cosmetic ingredients containing amines and amino derivatives with nitrogen compounds. When DEA is applied to skin known carcinogens can form.
- 11) **Cocomide DEA:** Mostly found in shampoo. Contains nitrosamines that are known carcinogens causing allergic reactions and contact dermatitis.
- 12) **Cocomidopropyl Betaine:** Used in shampoo in combination with other surfactants. Synthetic. Causes eyelid dermatitis.
- 13) **Carbomer 934, 940, 941, 960, 961 C:** As thickener, stabilizer in creams, toothpaste, eye makeup, bathing products. May cause eye irritation.
- 14) **DEA (diethanolamine):** A synthetic solvent, detergent and humectant widely used in brake fluid, industrial degreasers and antifreeze. Mostly used in liquid soap, shampoo & conditioner. Can be harmful for the liver, kidneys and pancreas. May cause cancer in various organs. Irritates skin, eyes, mucous membranes. Found also in hair dye, lotions, cream, bubble bath, liquid dishwashing detergent & laundry soap. Health risk especially to infants and young children. Forms nitrosamines known to be carcinogens. Causes allergic reactions and contact dermatitis. Hazardous & toxic.
- 15) **Dioform:** Many toothpastes and other tooth whiteners contain it. Damages your teeth enamel weakening their protective shell.

- 16) **Disodium EDTA:** May contain dangerous levels of ethylene oxide and/or dioxane, both potent toxins. A manufacturing byproduct. Also used as a chelating agent. Carcinogenic.
- 17) **Hydantoin DMDM:** Causes dermatitis. Acts as a preservative and may release formaldehyde and is a suspected carcinogen. Rats develop cancer when injected with this chemical.
- 18) **Elastin:** Supposed to improve the elasticity of the skin when applied externally, however, there is no proof.
- 19) **FDC-n (FD&C):** Various colours. Some are simply irritants while others are strong carcinogens.
- 20) **Fluoride:** Hazardous chemical. Researchers linked it to cancer years ago. No one is listening. Fluoridated toothpaste is especially dangerous to young children who tend to swallow it after brushing their teeth. Supposed to stop tooth decay. Scientists are now linking fluoride to dental deformity, arthritis, allergic reactions, can lead to Crohn's disease. A manufacturing toxic by-product.
- 21) **Formaldehyde:** Due to its bad name it is sometimes hidden under the name DMDM hydantoin or MDM hydantoin. Tradename is Formalin. Released by diazolidinyl urea. Causes dermatitis, adverse effects, is very toxic when swallowed or inhaled, skin irritant, very toxic, a suspected carcinogen and linked to cancer.
- 22) **Glycols (group):** Causes delay contact allergy. Used as humectant (emulsifier/moisturizer). In most cases as a cheap glycerine substitute. Propylene glycol did cause liver abnormalities and kidney damage in laboratory animals. Diethylene glycol and carbital are considered toxic. Ethylene glycol is a suspected bladder carcinogen. Glycols are carcinogenic, mutagenic, toxic and cause adverse reactions.
- 23) **Imidazolidinyl Urea:** Causes dermatitis. If heated to higher temperatures it produces formaldehyde.
- 24) **Lauramide DEA:** Nitrosamines can form in all cosmetic ingredients containing amines and amino derivatives with nitrogen compounds and nitrosamines are known carcinogens.
- 25) **Methyl Chloroisothiazoline:** Carcinogenic, mutagenic, toxic and causes adverse reactions.
- 26) **Paba (p-aminobenzoic acid):** Causes photo sensitivity and contact dermatitis. A common sunscreen agent.
- 27) **Parabens:** trademark for butyl, ethyl, germa, methyl, propyl paraben. Causes dermatitis. Used as a preservative in a variety of personal care products, especially creams and lotions. Allergic reactions. Petroleum based.
- 28) **PEG (4-200):** abbreviation for polyethylene glycol, polyoxethylene, polygocol, polyether glycol. A manufacturing byproduct. Dangerous levels of the toxin dioxane has been found in this product.
- 29) **Phosphoric Acid:** as an inorganic phosphate acid it is very disruptive to the skin if used in high concentrations.
- 30) **Phenoxyethanol:** causes allergic reactions.
- 31) **Polysorbate-n (20-85):** causes contact sensitivity and irritation.
- 32) **Polyquaternium:** Followed by any number they are carcinogenic, mutagenic, toxic and cause adverse reactions. Induced contact dermatitis, causes fatal drug allergy (anaphylactic shock), may cause increased sensitivity to muscle relaxants.

- 33) **Propylene Glycol:** found in most shampoo and conditioners. Derived from petroleum products. Also used in anti-freeze, de-icer, latex, paint, and laundry detergent. Can cause irritation of nasal and respiratory passages and if ingested, can cause nausea, vomiting and diarrhea. Research also shows it is mutagenic, causes cardiac arrest. Japanese studies show it damages cell DNA (genetic code). Strongly degreases and dries skin.
- 34) **Sodium Laureth Sulfate:** Causes skin irritate and dermatitis. Used mainly in shampoo and conditioner. Has ether added and is toxic.
- 35) **Sodium Lauryl Sulfate:** An ingredient in 90% of commercially available shampoo and conditioner. Corrodes hair follicle and impedes hair growth. Is found in car wash soap, engine degreaser, toothpaste, cream, lotion, and garage floor cleaners. Penetrates your eyes, brain, and liver and remains there for long-term. Degenerates cell membranes and can change the genetic information (mutagenic) in cells and damage the immune system. May cause blindness and lead to cataracts. Eyes cannot heal properly. Retards the healing process.
- 36) **Sodium Cyanide:** Carcinogenic, mutagenic, toxic and causes adverse reactions.
- 37) **Sodium Oleth Sulfate:** May contain dangerous levels of ethylene oxide and/or dioxane, both potent toxins.
- 38) **Sodium PCA (NAPCA):** Conditioner for your skin and hair, synthetic version can seriously dry the skin can cause allergic reactions.
- 39) **Styrene Monomer:** Carcinogenic, mutagenic, toxic and causes adverse reactions.
- 40) **Dimethylamine:** Secondary amines cause allergic dermatitis. Carcinogenic properties.
- 41) **Stearamidopropyl Tetrasodium EDTA:** Nitrosamines can form in all cosmetic ingredients containing amines and amino derivatives with nitrogen compounds. Nitrosamines are known carcinogens.
- 42) **Talc:** Hazardous. Toxic by inhalation. Some talc found to contain amphibole partivle distribution typical to asbestos (which is cancer causing).
- 43) **Toluene:** Used as a solvent in cosmetics, especially nail polish and dyes. Also in pharmaceuticals and gasoline as a blending agent.
- 44) **Triethanolamine (TEA):** Causes severe facial dermatitis, irritation and sensitivity. Used as pH adjuster. Reacts with stearic acid to form oil in water emulsions (typically lotions). May contain nitrosamines, known carcinogens.

Reference: "Hidden Dangers Lurking In Your Personal Care Products" by: Klaus Ferlow of Ferlow Botanicals.

## **Infrared Sauna**

### **Recommended use of sauna**

We highly suggest at least three sauna sessions per week to get the full benefits of what it has to offer.

The time spent in the sauna is different for every individual and all depends on your heat tolerance. One technique that we have found to be helpful is to time ten minutes once you feel yourself starting to sweat. After ten minutes step out and take a one-minute cool shower; return to the sauna and repeat as many times as you feel comfortable with or as many times as the hour allows. Our sauna experience has been the best when the former process is repeated three times.

### **Benefits of using an infrared sauna**

#### **Better Circulation and Increased Energy**

The sauna emits Far Infrared Radiation (FIR) energy that is absorbed by human cells, causing a physical phenomenon called "resonance". The cellular activities are beneficially invigorated, resulting in a better blood circulation and an overall improved metabolism.

#### **Weight Loss**

FIR Sauna therapy can aid in weight loss by speeding up the metabolic process of vital organs and endocrine glands resulting in substantial caloric loss in a sauna heat session. It is an excellent method to maintaining an ultra-metabolic lifestyle with weight loss and with weight maintenance programs. A moderately conditioned person can sweat off 250 grams of sweat. While the weight of the water lost can be regained by rehydration with water, the calories will not be. The heart receives a workout similar to a 6-mile run in a 20-30 minute FIR sauna session and the body perspires the same amount as a 6-mile run.

#### **Cardiovascular Health**

The FIR Sauna increases heart rate and blood circulation, crucial to maintaining one's health. The heart rate increases as more blood flow is diverted from the inner organs towards the extremities of the skin, without heightening blood pressure.

### **Recovery from Injuries**

The FIR Sauna helps in healing injuries faster. FIR generated heat stimulates vasodilatation of peripheral blood vessels, bringing oxygen to joints and extremities, speeding the healing of sprains and strains, thus relieving pain and reducing the time it takes the human body to recover from an injury.

### **Detoxification**

Toxins such as sodium, alcohol, nicotine, cholesterol and carcinogenic heavy metals (cadmium, lead, zinc, nickel) and mercury accumulate in the body during modern daily life. The body eliminates most toxins naturally by sweating but the process is sometimes too slow. Infrared heat therapy stimulates the sweat glands that cleanse and detoxify the skin. The FIR heat technology simply speeds up the body's natural process! The skin is often referred to as the 3rd kidney, because it is believed to be responsible for eliminating 30% of the body's waste.

### **Stress Reduction & Relaxation**

FIR Sauna heat treatment before a massage also helps prepare a client by creating an overall relaxing effect. It loosens the muscle tissue so the therapist can do a more thorough and effective massage.

### **Skin Beautification**

For that sought after healthy glow, FIR Sauna heat therapy allows increased blood circulation to carry great amounts of nutrients to the skin, thus promoting healthy tone and texture. A FIR Sauna heat bath also provides a mild cleansing of the skin.

### **Improved Immune System**

By creating an "Artificial Fever", FIR heat has a positive effect on the immune system. Often misunderstood, fever is a natural healing response of the body. The function of the immune system is increased naturally during a fever, while virus and bacterial growth is inhibited by increased body temperatures. This helps the body ward off invading organisms. A FIR heat treatment in the early stages of a cold or flu has been known to stop the illness before the symptom intensity increases.

Join the Sauna Club at the Simcoe clinic location: call 519.426.4275 to discuss our package rate and bring a friend along for free! One sauna

session is \$20 while 12 sessions cost \$200 – a savings of \$40 or two sessions for free.

## Diseases that can be treated with Infrared Sauna

- TMJ Arthritis
- Traumatic Arthritis
- Duodenal Ulcers
- Bursitis
- Insomnia
- Rheumatoid Arthritis
- Hemorrhoids
- Low Back Pain
- Cystitis
- Disc-Protrusion Neuralgia
- Cirrhosis of the Liver
- Gout
- Gastritis
- Shoulder Pain
- Hepatitis
- Compression Fractures
- Asthma/Bronchitis
- Muscle Spasms
- Crohn's Disease
- Adhesion
- Keloids
- Soft Tissue Injury
- Allergies
- Whiplash
- Eczema
- Fibromyalgia
- Psoriasis
- Migraine Headache
- Seboria
- Pain During Menstruation
- Acne
- Neurodermatitis
- Boils
- Facial Paralysis
- Constipation
- Neurasthenia
- Sciatica