



The 'sun vitamin' for life

A study conducted by the University of Calgary shows that 97% of Canadians suffer from vitamin D (V-D) insufficiency some time during the year. Because of the country's northern latitude and harsh winters, natural production of V-D lacks between 4 to 6 months. More and more, doctors worry about this deficiency because they link many chronic and fatal diseases with it. They call it the 'silent epidemic'.

What is vitamin D?

Vitamin D is a hormone that regulates the genetic activity in various parts of our body: brain, liver, intestines, skin, bones, pancreas, parathyroid glands, prostate, kidneys, breast, as well as nervous and immune systems. The photosynthesis of UVB rays from sun exposure is the body's natural way to produce V-D. This is why it is nicknamed 'Sunny D'.

Multiple benefits of V-D

In 1822, a Polish physician recognizes that children who live in industrialized towns are more susceptible to develop **rickets**. He cures them with sun exposure. The medical community then finds out that proper levels of V-D also help prevent **tooth decay**, **osteomalacia** among adults and **osteoporosis** among the elderly.

At the beginning of the twentieth century, prior to the discovery of antibiotics, UVB exposure was the only efficient cure for **tuberculosis**. Since then, research has evolved tremendously.

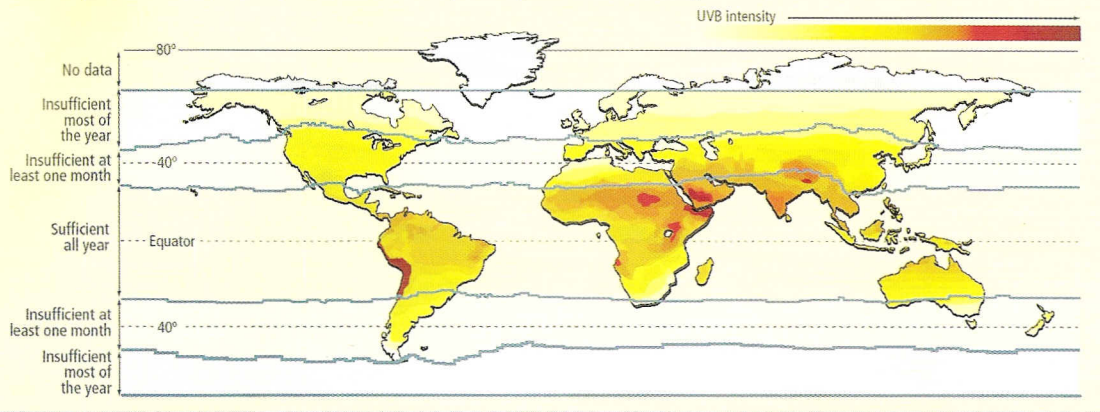
An article published in *The American Journal of Clinical Nutrition* revealed that maintaining a high level of V-D reduces by 60 % the risks of developing various forms of **cancer: breast, prostate, bladder, ovary, stomach, rectum, kidney, oesophagus, uterus, lymph, larynx, mouth and pancreas**. Many of these cancers double in number among Americans who live in the northern regions compared to the ones who live in the south. According to Dr. Cedric Garland of the *University of California*, daily intakes of 2,000 IU (international units) decreases by 2/3 the risk of developing **colorectal cancer**, the second most lethal in the country.

Healthy doses of V-D also help prevent **heart conditions** and **high blood pressure** which are more frequent in the least sunny parts of the world. Dr. Michael F. Holick has demonstrated that short sessions in tanning beds, three times a week, during six consecutive weeks, reduce **hypertension**. He claims that more than a billion people suffer from V-D deficiency on our planet.

VITAMIN D WINTER

Exposure to UVB radiation in sunlight is the single greatest source of vitamin D for most individuals, so location and season affect a population's risk of deficiency. For periods of the year known as vitamin D winter, UVB intensity is too weak at some latitudes even to induce vitamin D synthesis in the skin. Because ozone blocks UVB rays, the rays

are most intense nearest the equator, where sunlight travels the least distance through the earth's atmosphere, and vitamin D synthesis is possible year-round. An increasing angle of penetration at higher latitudes weakens UVB intensity until it is insufficient, especially during winter, for making vitamin D.



Frequent moderate sun exposures also contribute to regulate the **circadian rhythm** (sleep cycles), prevent **Alzheimer, autism, seasonal depression, schizophrenia** and **PMS symptoms**, reduce **rheumatism, fibromyalgia**, protect from **multiple sclerosis, diabetes, lung infections** including **pneumonia**, as well as **Crohn** and **Parkinson** diseases. Many dermatologists prescribe ultraviolet sessions to treat various skin conditions such as **acne** and **psoriasis**. Following a tanning session, everyone feels good because it triggers production of **endorphin B**. **Fertility** may increase by 200 %.

How to maintain a healthy level of V-D

Researchers at the *Harvard School of Public Health* suggest the daily production of at least 1,000 IU of vitamin D3 through sun exposure. Obese and older persons have to take longer sessions due to the fact that their blood circulation is slower. Because of their natural dark pigmentation, coloured people have to expose themselves to sunlight at least six times more than Caucasians in order to maintain the proper quantity of V-D. **Moderation** is mandatory to ensure safe and comfortable photosynthesis processes. Sunburns must be avoided at all times. Remember that in high altitudes, the

intensity of sunrays increase by 4 % every 1,000 feet, and that 96% of UV rays can penetrate through clear water.

If necessary, VD2 levels may be supplemented with the consumption of the following products: cod liver oil (1 spoonful = 1,360 UI), tuna, sardines, mackerel and salmon (3 3.5 oz = 200 to 360 UI), Shiitake mushrooms (fresh 3.5 oz = 100 IU, dried 3.5 oz = 1,600 IU), egg yolk (20 IU) as well as fortified milk products, orange juice and cereals (60 to 100 IU per portion). However, overdoses of these foods could become toxic. A good balance in everything is the answer.

We now realize why many doctors consider sunlight as the 'medical discovery of the century'!

Sources:

Scientific American, p. 62 to 72, November 2007

Sélection du Readers' Digest, p. 109 to 117, November 2007

Financial Post, p. FP1, May 30th 2007

Radiant Health, February 5th 2008