

Vitamin D –The Sunshine Vitamin

Vitamin D is really not a vitamin but a hormone and one of the most important immune modulators in the body.

Sunshine brings many benefits including the production of nitric oxide (heart disease) and serotonin (helps depression). **However the biggest benefit is the production of Vitamin D.**

Vitamin D and Cancer

There is now strong evidence that moderate sunbathing and having higher levels of Vitamin D in the blood **lowers the incidence of 17 types of cancers** (including breast, ovary, prostate, colon, bladder, non-Hodgkins lymphoma). It also increases survival times in cancer.

Chemotherapy drugs, have been shown to greatly reduce Vitamin D levels. Cancer does the same. Boston Medical School found the dose needs to be higher in these situations, ideally 5000 iu daily when cancer is active and 10,000 IU daily during chemotherapy.

Vitamin D and Respiratory Infections

Vitamin D has been shown to reduce the incidence of respiratory infection in adults and children in 3 meta-analyses, and asthma in 5 studies. Low levels of Vitamin D have been associated with lung disease, tuberculosis, sinus infections and exacerbations of COPD. **Vitamin D protects against infections.** Dr Gerry Schwalfenberg has shown that influenza and other respiratory infections often **respond rapidly to high doses of Vitamin D** (10,000 IU three times a day for a few days).

Vitamin D and other Diseases

Vitamin D improves heart disease, stroke, diabetes, birth defects and depression. It also increases survival times in cancer.

There is also a link between low vitamin D levels and chronic pain and Vitamin D has been shown to ease symptoms of back pain in 95% of one group studied. Another study found vitamin D gave a 33% reduction in type 2 diabetes and another found it reduced fractures by one third. Sunlight strengthens muscles (in one study reducing falls in the elderly by 19%) and increases heart output by 40% It also lowers cholesterol, lowers sugar, lowers blood pressure, strengthens muscles, protects against multiple sclerosis, improves absorption of calcium and magnesium, boosts immunity, protects from infections, and doubles the lifespan of laboratory mice.

High-dose Vitamin D, Multiple Sclerosis and Auto-Immune Disease

Some of the most dramatic benefits of Vitamin D have been seen with multiple sclerosis. Professor Cicero Coimbra, a neurologist and professor of neuroscience at the Federal University of Sao Paulo, Brazil, has pioneered the use of high-dose Vitamin D in multiple sclerosis and other auto-immune disease including psoriasis, Crohn's disease, vitiligo, ankylosing spondylitis and rheumatoid arthritis. He believes that there is resistance to Vitamin D in auto-immune diseases and high doses are needed.

His results have been remarkable. In multiple sclerosis this treatment typically switches off the disease and lesions under two years old resolve over time. The doses he uses are typically 50-200,000 IU daily. His regime requires special monitoring with regular blood and urine tests. Adverse effects are rare and typically the treatment gives a feeling of well-being.

Vitamin D and the Prevention of Type 1 Diabetes

One of the most fascinating studies on Vitamin D ever comes from Finland. This showed that taking 2000 IU Vitamin D in pregnancy reduced the rate of type 1 diabetes in their children by 80%. **The implication of this study is enormous. If 2000 IU of Vitamin D was routinely given in pregnancy then type 1 diabetes would become a rare disease.**

Vitamin D and Drugs

Some drugs lower Vitamin D including antacids, statins and anti-convulsants.

How much Vitamin D?

The ideal level of Vitamin D **should be above 75nmol/l** but levels are typically lower than this in the UK. It is difficult to get adequate Vitamin D from food although oily fish and mushrooms do contain a little. Typically sunbathing, long enough to get slightly red, in a bathing costume, will provide 10,000 of Vitamin D within half an hour or so. This Vitamin D stays in the body for 5 to 6 weeks. I am a great advocate of sun exposure but please be aware that excess sunbathing in the middle of the day in the middle of summer can increase the risk of some skin cancers. **So get plenty of sunshine but don't binge on it** and avoid the most dangerous times.

However **most people need supplements of Vitamin D**. Dr John Cannell, founder of the Vitamin D Council and researcher on Vitamin D has stated that there has never been a case of toxicity seen in people taking 10,000 IU vitamin D daily even for prolonged periods. **Some recent work published in a major medical journal suggest the ideal daily dose of Vitamin D should be 2,600iu daily**. However it is safe to take up to 10,000 IU daily. Above this amount regular monitoring will be required.

Note 25µg is the same as 1000 IU. If you are likely to be in the sun take your supplement in the evening, after food, otherwise after any meal.

There is another form of vitamin D called D2 or ergocalciferol. It is best not to use this form as it has only a quarter of the strength of Vitamin D3 (colecalciferol). You can buy supplements containing 1000 IU (25µg) at health food shops. For children drops are available. Children with low levels can have up to 5000 IU daily if under 6 months and up to 8000 IU if over 6 months. Take this for 2 months then use 200-400 IU for routine use in children under 6 months and 400-800 IU in those over 6 months.