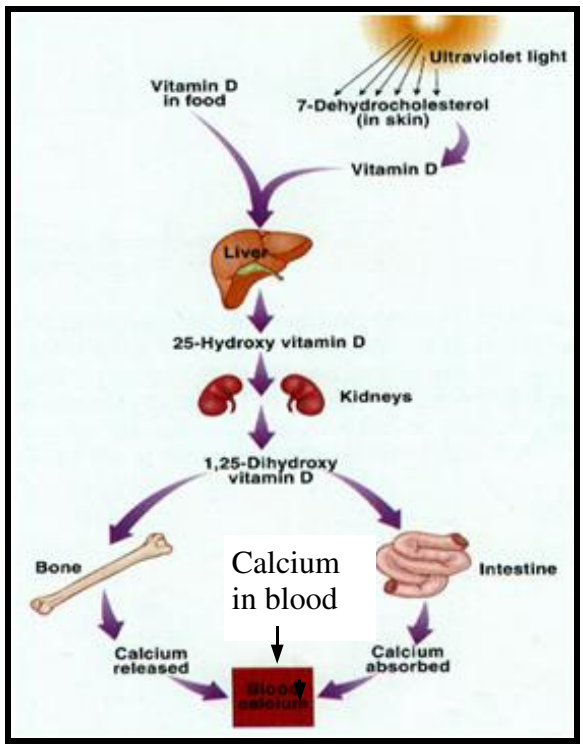
"THE VITAMIN D CURE"

Written by Tessa Jupp RN from the book by James Dowd MD 2008

After I wrote the article about Vit D for the Post Polio Newsletter in Dec '08, a polio member loaned me a copy of the book mentioned above. I have noted some interesting points from the book below for you and the article on the next page has information on tests for Vit D, doses, types of Vit D and drug interactions - by an Aussie compounding chemist, Dr Serafina, based in country NSW.

So if it is important that we get around 2,000IU of Vit D a day and we are not getting enough from sun exposure these days, given that the amount in food is minimal ie best sources are cod liver oil which gives 400IU per capsule; 100gms of salmon or sardines = 480IU; of tuna = 240IU; 100gms of egg yolk = 70IU and of butter = 80IU, then it looks like a supplement is needed.



If poor **bone density** is a concern and your GP has or wants you on drugs for this, he may be able to prescribe D3 as Rocaltrol or Calcitriol on an authority or you can buy Vit D in the shops. **Golden Glow** has a **mail order D3 1000IU** for **$19 plus postage $3.50** for **180 tablets. (or from Polio Office for $22 ea.)** Maybe worth a try.

(now from the book) - FRACTURES

A recent article in the Journal of the American Medical Assoc showed **800IU daily of Vit D reduced hip fractures by 26%** and other fractures by 23%. These are better figures than we get with osteoporosis medications!

MUSCLES & STRENGTH

A Swiss study on the elderly found Vit D improved **strength**, **coordination**, the **ability to sit, stand and walk again**, after only a few weeks! This is because Vit D is essential to get the calcium in and back out of muscle cells, for them to be able to contract and relax. The Mayo Clinic in USA found dramatic **improvement in complaints of pain all over,** when given extra Vit D. If the body is too acidic, muscle is broken down and lost, to provide an alkaline buffer to acidity.

Antacids impair the absorption of Vit D and minerals like magnesium and calcium. To reduce acidity we need more vegetables.

CANCER

Vit D controls the genes and enzymes that repair errors in new cell growth. Vit D slows the rate that cells divide so that there are fewer errors and Vit D also assists in cell repair. The Nurses Health Study found **less breast cancer in nurses with higher levels of Vit D.** Taking Vit D provided a slowing of cancer growth and the stimulation of tumour-suppressing genes allowing repair and death of cancer cells. There were similar findings when Vits D & A were used together in **prostate cancer. Skin cancer** and **melanoma** risk was less with high levels of D & A. Death rates are higher from **colon cancer** in countries with less sunlight. There are more cases of **flu** in winter when there is less sunlight and so less Vit D. Vit D has also been shown to help fight **TB, Hepatits C** and people with **HIV** have shown low levels of Vit D

Psoriasis is worse in winter and current treatment is exposure to UVB light which is needed to make Vit D. **Inflammatory Bowel Disease**, including Crohn's and ulcerative colitis improve with extra Vit D. People with **Lupus** have been found to have low levels of Vit D. Vit D strengthens the immune system, warding off auto-immune diseases as well as infections. Magnesium is needed for Vit D to function properly

DEMENTIA

Current evidence shows that lack of Vit D, Mg and Omega 3, increases degenerative brain disease like **Alzheimer's** and **Parkinson's** as the dendritic nerve cells have Vit D-receptors. The risk of **MS** is known to increase the further away you are from the equator and so Vit D is lower. This risk can be set by D-deficient mothers, in pregnancy.

INCREASING Vit D LEVELS

- **lowers blood pressure** by opening up blood vessels allowing more blood to flow
- improves **insulin sensitivity** as Vit D needed by the pancreas to be able to release insulin
- improves **fibromyalgia** and **fatigue** levels
- lessens risk of **depression**, which is worse in winter with less sunlight and less Vit D
- improves **cholesterol** by reducing LDL and triglycerides and raising HDL
- lessens risk of **heart attacks** by reducing the stickiness of cells lining blood vessels
- lessens storage of energy as **abdominal fat**.

Benefits of Vitamin D

Taken from an article by Dr Michael Serafina NSW

There is a vast body of science showing the many health benefits of vitamin D.

Maintains Your Calcium Balance
Maintenance of blood calcium levels within a narrow range is vital for normal functioning of the nervous system, as well as for bone growth, and maintenance of bone density. Vitamin D is essential for the efficient utilisation of calcium by the body.

Boosts Your Immune System
Active vitamin D is a potent immune system modulator. There is plenty of scientific evidence that vitamin D has several different effects on immune system function that may enhance your immunity and inhibit the development of autoimmunity. Studies show that people with good levels of Vit D are **less likely to get colds and flu.**

Insulin Secretion
The active form of vitamin D plays a role in insulin secretion under conditions of increased insulin demand. Limited data in humans suggests that insufficient vitamin D levels may have an adverse effect on insulin secretion and glucose tolerance in type 2 diabetes.

Testing Vitamin D Levels
The form of vitamin D tested for should be 25 Hydroxy-Vitamin D and must be performed using the DiaSorin method. According to the Royal Children's Hospital in Melbourne - **the normal range of 25 Hydroxy Vit D is 50 - 160 nmol/L** however if you wish to obtain optimal levels for peak performance then **you should aim for at least 115 nmol/L**.

Vitamin D3 Supplements
It is not always effective and/or practical to get your vitamin D from sunshine, and quite difficult to get adequate amounts from your diet so for many people, a vitamin D supplement is a practical way to ensure adequate levels of this important protector are always available in your bloodstream.

Some supplements use synthetic vitamin D2 which has been found to be less effective. A much better form is **natural vitamin D3 (cholcalciferol)** which stays in your system longer and with more effect. Vitamin D3 ideally should be taken as an oil filled capsule which provides far better absorption. In many cases powder filled capsules or tablets are unable to raise serum Vitamin D levels significantly thus oiled filled capsules are recommended.

There are a number of varying dosage protocols ranging from 2,000IU daily to 25,000IU twice a week. We recommend to stick with the lower doses unless you are under medical supervision.

More Vitamin D May Be Better?
Recent science is showing that doses above these may provide better health. For example, Professor Robert Heaney has reported in April 2006 in the Journal of Nutrition his study showing an additional 2,600 IU/day of oral vitamin D3 should be given to older women.

The American Journal of Clinical Nutrition reported a recommendation of 4,000 IU per day for adults. He also showed that levels of 10,000 IU per day were normal from body exposure to the sun and the only published vitamin D toxicity was at levels exceeding 40,000 IU/day.

It seems more studies are warranted on proper vitamin D doses. Given that vitamin D3 is safe at very high levels and may provide extraordinary benefits with no known risk, we recommend individuals get reasonable sun exposure, eat foods rich in vitamin D, and supplement with 2,000IU Vitamin D3 in an oil based capsule. Follow up blood tests will then determine if any dosage adjustments are required.

Vitamin D Toxicity
It is very rare to have a vitamin D overdose. Research published since 1997 suggests that this level for adults is overly conservative and that vitamin D toxicity is very unlikely in healthy people at intake levels lower than 10,000 IU/day.
Certain medical conditions can increase the risk of hypercalcemia in response to vitamin D, including primary hyperparathyroidism, sarcoidosis, tuberculosis, and lymphoma. People with these conditions may develop hypercalcemia in response to any increase in vitamin D nutrition and should consult a qualified health care provider regarding any increase in vitamin D intake.

Vitamin D Drug Interactions
The following medications increase the metabolism of vitamin D and may decrease serum D levels: **Dilantin**, **phenobarbital**, **Tegretol**, (all for epilepsy) and **rifampin** (for TB).
The following medications should not be taken at the same time as vitamin D because they can decrease the intestinal absorption of vitamin D: **Cholestyramine** and **colestipol** (Colestid) for cholesterol, **Xenical** for weight loss, mineral oils, the fat substitute Olestra and the oral anti-fungal medication, **ketoconazole (Nizoral) for candida or thrush**. Patients on **Digoxin** may experience cardiac arrhythmia if high levels of Vit D increases calcium levels.