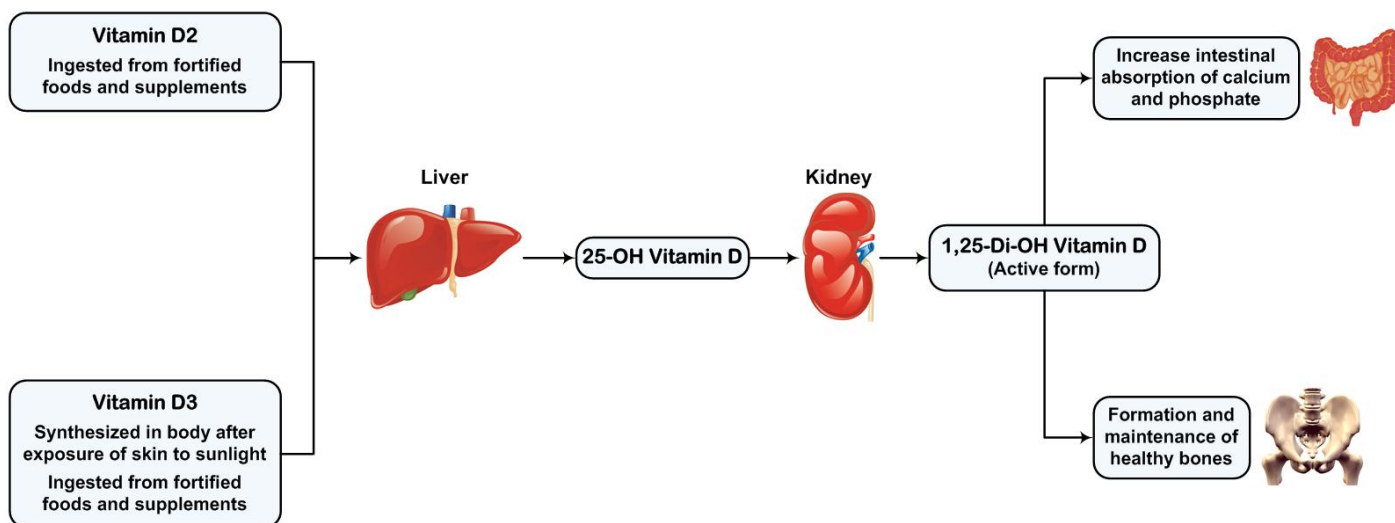


Physicians' Lab Update / Newsletter

July 2013

Vitamin D – Are Your Patients Getting Enough?

Vitamin D is a group of fat-soluble secosteroids responsible for intestinal absorption of calcium and phosphate. It plays an essential role in the formation and maintenance of healthy bones. Moreover, there is an increasing body of research showing that the Vitamin D group metabolites are also important for many other cellular functions, including immune mediation. The main sources of Vitamin D are supplementation in the food supply (Vitamin D2) and sunlight. Since many Canadians are at risk for Vitamin D deficiency, additional supplementation, usually in the form of oral Vitamin D3, is recommended. Both Vitamin D2 (derived from yeast) and Vitamin D3 (produced by animals, including humans) are capable of being metabolized to the active form, 1,25-Dihydroxycholecalciferol (1,25-Di-OH Vitamin D). A recent survey of serum levels of 25-Hydroxycholecalciferol (25-OH Vitamin D) in patients tested at LifeLabs in BC found that 20% of patients had levels of <50 nmol/l, a level where patients are at increased risk for osteoporosis.



Why the Recent Changes in MSP Billing of the Vitamin D test?

Serum levels of 25-OH Vitamin D are the best measure of Vitamin D status. However, most patients, when provided adequate supplementation with Vitamin D3, will not benefit from having their Vitamin D status confirmed by the determination of serum levels of 25-OH Vitamin D. Also it is widely held that toxicity from Vitamin D supplementation is very rare. For these reasons, Vitamin D testing is no longer a benefit of the Medical Services Plan for patients over the age of 18, unless ordered by a specialist. As of July 22, 2013, Patients who do not meet the MSP criteria will be presented with the option to pay for the 25-OH Vitamin D test privately.

Sources of Vitamin D



Natural sunlight



Vitamin D supplements



Egg yolk



Salmon



Fortified orange juice



Fortified milk, cheese, butter/margarine

What is the Difference Between 25-OH Vitamin D and 1,25-Di-OH Vitamin D?

25-OH Vitamin D is produced in the liver from dietary or sunlight derived Vitamin D₂ or D₃. The active form of Vitamin D, 1,25-Di-OH Vitamin D, is produced from 25-OH Vitamin D in the kidneys. Significant renal parenchymal disease is required before this conversion is clinically significantly impaired. Conversely, overproduction of 1,25-Di-OH Vitamin D can occur in patients with sarcoidosis or lymphoma. It is possible, though difficult, to measure 1,25-Di-OH Vitamin D levels in serum. The assay accuracy and precision is not nearly as good as that for 25-OH Vitamin D. For these reasons, determining 1,25-Di-OH Vitamin D levels is only of benefit in patients with sarcoidosis, lymphoma or significant renal disease, and measurement of 1,25-Di-OH Vitamin D is not indicated for determining osteoporosis risk in otherwise healthy patients.

Dr. Kent Dooley, Clinical Chemist

LifeLabs[®]
Medical Laboratory Services

1-800-431-7206
www.lifelabs.com



DAP
Accredited

BCBiomedical
LABORATORIES

1-800-565-1441
www.bcbio.com

cap
ACCREDITED[™]

DAP
Accredited