

## A COMPLEX VITAMIN AND MINERAL DEFICIENCY STATE

### CHRONIC CALCIUM AND VITAMIN D DEFICIENCY

The pure clinical research I conducted in office practice over several decades indicates that, depending on their duration and severity, lifestyle defects creating chronic deficiency of dietary calcium and of the dietary and sun-on-skin generated D vitamins may give rise to chronic cellular deficiency of calcium which has been rendered biologically active by the D vitamins.

Evolutionary and clinical evidence indicates that such a form of calcium is intimately involved in a process which, as it constitutes a control of the intracellular transfer of energy; is a control of the oxidative release of the solar bonding energy of glucose and oxygen. Therefore, biologically active calcium is a prime requisite for the energizing of cells and cell function and deficiency of it will give rise to both direct effects on tissues and indirect effects on organs.

#### DIRECT EFFECTS

The direct effect of that deficiency and energy starvation on skeletal and internal muscle is to create skeletal and abdominal cramps and aches, and physical signs such as irritability of skeletal muscle on percussion.

#### THE INDIRECT EFFECT

The indirect effect of that deficiency creating the energy starvation of cells is to excite the autonomic stimulation of adaptive function of organs designed to effect biochemical compensation for that deficiency. When broken down by persisting deficiency that function will give rise to disease such as chronic asthma, ileitis-colitis, arthritis and/or osteoporosis, hypertension, and diabetes..

The adaptive functions of lungs, intestines, and of the carbohydrate metabolizing system will increase cellular acidity of all body cells that will be reflected on the pH of saliva.

#### COMPLICATED DEFICIENCY STATES

Included in the cell function which may be depreciated by chronic deficiency of that form of calcium is that of secretory cells of the intestine and thyroid synthesizing vitamin B-12 and thyroid hormone.

Consequently, symptoms and signs arising because of deficiency of that vitamin such as fatigue and depression, and arising because of deficiency of that hormone such as the above complaints plus cold intolerance and a subnormal temperature, may complicate the above mentioned direct and indirect effects complaints and disease arising because of chronic calcium and vitamin D deficiency.

On that basis I refer to the symptoms and signs of chronic vitamin B-12 or chronic thyroid deficiency as "the domino effect complications" of the diseases of calcium and vitamin D deficiency. These complications are more likely to arise if the deficiency and adaptation against that deficiency are of a degree sufficient to give rise to an acidic saliva with a pH reading in the 6.5 to 4.5 range.

### CHRONIC VITAMIN B-12 DEFICIENCY

Vitamin B-12 is synthesized by specialized secretory cells in the intestinal lining by the combination of two factors, an extrinsic factor in the diet and an intrinsic factor of the liver.

The deficiency in B-12 appears to be more one of quality than quantity. Despite that a blood test has been reported as showing a normal concentration of that vitamin presence of the deficiency should be further tested by "test of treatment". This involves the injection of one cc. of a 1,000 micro-milligrams per cc. solution of the vitamin under the skin, like a one cc. insulin injection, for three days in succession. The patient is then observed to determine if they received any benefits in the form of relief of fatigue, anxiety, or depression. That form of the vitamin, syringes, and needles, may be obtained without prescription.

The effect of 1,000 Mcg oral B-12 tablets twice daily is so gradual that the health professional will be unable to distinguish if any improvement of the patient was due to the B-12 or to the other vitamin-mineral therapy. Consequently, a patient deficient of that vitamin may not gain the benefit of an accurate diagnostic test of an underlying deficiency.

### CHRONIC THYROID HORMONE DEFICIENCY

Thyroid hormone is synthesized by secretory cell of the thyroid gland, utilizing iodine in that process.

As in the case of vitamin B-12 deficiency, defective quality rather than deficient quantity of the hormone may be the underlying problem and blood tests indicating a normal concentration of T-3 and T-4 thyroid hormones may be grossly misleading. Therefore, the health professional should take advantage of another and more delicate test for the deficiency.

I refer to the "basal skin temperature test" devised by Dr. Broda Barnes that the patient may perform by themselves, on themselves, at home. This test of the basal or inactive body temperature is performed by putting a thermometer in the armpit before arising in the morning and leaving it there for approximately five minutes.

The body's metabolism, that largely involves the oxidation of glucose liberating heat in the process, is dependant on the presence of active thyroid hormone in all body cells. Therefore a basal skin temperature below the normal Centigrade range of 36.5 to 36.8 degrees, or below the normal Fahrenheit range of 97.8 to 98.2, is indication of either presence of a defective thyroid, or thyroid deficiency.

The patient being investigated is well advised to keep a daily, or at least four times a week, record of this temperature spotting them on piece of graph paper. If that record indicates a Centigrade temperature in the 35 degree range, or a Fahrenheit temperature in the 96 degree range they may elect to take thyroid extract obtained by prescription from their physician. However, since the deficient synthesis of that hormone may be gradually corrected by therapy of the causative calcium and vitamin D deficiency, the therapist and patient may wait and see if several month's therapy with that mineral and vitamin induces generalized and specific improvement in health, a decline in the salivary acidity, and a gradual rise in their skin temperature. If that rise does not occur the addition of thyroid therapy may be considered.

#### IN CLOSING

Chronic deficiency of calcium and of the D vitamins created by specific defects of lifestyle may give rise to the associated "domino effects" of chronic vitamin B-12 or chronic thyroid deficiency, creating one or more of the symptoms of chronic fatigue, anxiety-depression, and cold intolerance.

Those "domino effects" may only be added to the minor complaints created by lesser degrees of chronic calcium and vitamin D deficiency. Alternatively, if the calcium and vitamin D deficiency is of a degree sufficient to excite adaptive function of organs creating acidification of the body fluids including saliva, and to cause the breakdown of those functions creating disease, those "domino effects" may complicate those diseases to heighten the illness of the patient.

Deficient cell stimulation by that vitamin or that hormone may result as frequently from the defective synthesis of that vitamin and hormone, as from their deficient synthesis. Therefore, the determination of the blood concentration of either factor may be entirely misleading.

Health professionals and patients should not rely completely on the laboratory analysis of the blood concentration of those factors to detect if deficiency of either vitamin or hormone is present. I have never studied the occurrence of both of those "domino effects" in the same calcium and vitamin D patient.

The superiority of the "test of treatment" and of the "Broda Barnes" skin temperature test over laboratory analysis of blood samples is a reality which any health professional may validate in their practice.

Considering the incidence in which defective or deficient synthesis of vitamin B-12 or of thyroid hormone may be present, and considering the simplicity of doing the above non laboratory tests, those tests should be done more frequently on ~~only~~ symptomatic or seriously diseased patients.  
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