



Newsletter

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CLINICAL NUTRITION

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Nutritional therapy is rapidly evolving. Both traditional and alternative medical sources are increasingly relying on nutritional data to improve their diagnoses and prescriptions for health. However, there is considerable confusion about how to use nutrition properly. Some of this confusion is due to the many nutritional studies that are often conflicting. Also, many practitioners and consumers alike view the utilization of nutrition through a typical medical paradigm, that is the treatment of symptoms, by substituting nutritional supplements in place of a drug. Symptoms have to be addressed and controlled, but for nutrition to be used most effectively we must change this paradigm to focus on treating the person instead of their condition.

With the understanding of metabolic types through hair tissue mineral analysis (HTMA) patterns, much of the confusion and conflicts can be easily understood. Through the proper use of HTMA a specific rather than an empirical use of nutrition can be inaugurated. Instead of working to correct a single nutrient deficiency or symptom, we can endeavor to re-establish equilibrium on a nutritional and metabolic level, thereby establishing a new paragon for health care.

The Beta Carotene Studies

As most are aware, the trials involving the use of beta-carotene on individuals suffering from lung cancer had less than spectacular results. Beta-carotene is an excellent anti-oxidant, but any anti-oxidant, in certain circumstances can become a pro-oxidant. Also as an anti-oxidant quenches a free radical, it also produces a free radical. This is why the therapeutic use of anti-oxidants should be used in conjunction with other anti-oxidants as well as other nutritional co-factors. The singular use of this anti-oxidant may account for some of the negative outcome.

Through HTMA studies we can see other possibilities of why there were negative outcomes from the beta-carotene study. HTMA patterns of lung cancer patients are almost always Fast Metabolic patterns. Lung cancer can therefore be classified under the category of Sympathetic Diseases, as sympathetic malignancies are usually fast growing and highly metastatic. Their growth and spread are probably driven by the sympathetic neuro-endocrine activity, particularly the elevated adrenal and thyroid function. Beta-carotene can be readily converted to active vitamin A due to the influence of the thyroid. The active vitamin A may then drive the malignant process due to its action of further stimulating the overall sympathetic neuroendocrine system. This could help explain the negative and even contributing effects of beta-carotene toward enhancing malignant lung disease.

High Protein Intake and Calcium Loss

There are many articles advocating that high protein intake increases calcium loss and thereby contributes to osteoporosis. In reality the types of proteins used in these trials involving human and animal studies were of highly purified and concentrated amino acid diets, that in fact did produce increased urinary calcium loss. However, commonly eaten complex dietary proteins do not produce the same effects in strictly controlled long-term human studies. Actually when as much as one pound of red meat was eaten daily for four months by volunteers, urinary calcium did not change appreciably. The reason is apparently due to the phosphorus content of commonly eaten protein complexes compared to the purified type of diets used in other studies. Any increase in urinary calcium that may occur because of the acid-ash content of animal protein is counteracted by the naturally occurring phosphorus content, which is not present in the highly purified protein diets. Also the length of time of the studies is important to know. There may be a short-term increase in urinary calcium, but it quickly returns to normal within a short time. The studies utilizing complex protein diets in human volunteers were carried out for six months compared to other studies of just a few days or weeks. To date there is no convincing evidence that a high complex protein intake leads to osteoporosis in healthy individuals.

NADH and Neurological Disease

Recently articles have appeared discussing the beneficial effects of NADH in Alzheimer and Parkinson's disease patients. NADH is the reduced form of the enzyme NAD (nicotinamide adenine dinucleotide). NAD serves as a hydrogen acceptor and donor through oxidation and reduction reactions, in the glycolytic (cytoplasm) and Krebs cycle (mitochondrial) pathways. These co-enzymes are responsible for making pyruvic acid available to the Krebs cycle for energy production. A reduction of NADH is actually a symptom of some metabolic problem; therefore, the prescription of NADH may bring about a temporary improvement. However, it is the ratio of NAD/ NADH that is important and the causes of an elevated NAD/NADH ratio eventually have to be addressed.

HTMA patterns reveal that many neurological diseases such as Parkinson's, Multiple Sclerosis and ALS are Sympathetic conditions. Nutritional imbalances seen in this HTMA pattern can contribute to an imbalance in the NAD/NADH ratio in the cytoplasm resulting in a lack of pyruvic acid availability to the Krebs cycle. This ultimately results in an increase of cytoplasmic lactic acid. For example, copper deficiency results in a decrease of NAD relative to NADH. Copper deficiency is a common HTMA finding in the above conditions. Other factors that can adversely affect the NAD/NADH ratio include adrenal steroids, androgens, progesterone, thyroid and parathyroid hormones, mineral and vitamin imbalances. The specific nutrients and neuroendocrine factors must be addressed to improve cellular function and ultimately correct the underlying cause of the NAD/NADH imbalance.

Helicobacter and Hydrochloric Acid Deficiency

It has been found that Helicobacter-induced gastritis is a common cause of hypochlorhydria. On the other hand a lack of normal hydrochloric production can lead to bacterial overgrowth in the small intestine. Poor digestion can lead to putrefaction of protein and inhibit normal absorption of essential amino acids as well as vitamins and minerals. This is speculated to contribute to depression in patients as well as many other gastrointestinal complaints. The use of hydrochloric acid supplementation has been effective in reducing the many symptoms of patients suffering.