INTRODUCTION

Through hair HTMA studies we have seen that many diseases provoke specific metabolic responses and can be classified as being either sympathetic or parasympathetic in origin. A partial list of diseases and conditions that have been classified can be found in "Nutritional Interrelationships, Minerals-Vitamins-Endocrines", Watts, D.L., Orthomolecular Journal of Psychiatry, Vol. 5, No. 1, 1990. The list was compiled as a result of clinical research and evaluation of over 100,000 HTMA profiles submitted by doctors nationwide. These classifications are continually being supported by an ever-increasing amount of scientific studies and literature.

Parkinson's Disease and the Thyroid

Parkinson's Disease can be considered a sympathetic condition, most often seen in patients who are true fast metabolizers. Such patients usually have elevated thyroid, adrenal, and anterior pituitary activity along with an under activity of the parathyroid and endocrine pancreas. This has been further supported by a recent article in the September 3, 1988 issue of "Lancet". A group of researchers reported their findings of the relationship between hyperthyroidism and Parkinson's. Ten patients were involved in the study, of which four had toxic adenomas, and five had multinodular goiters. Previous diagnosis of thyrotoxicosis was not evident since it was apparently overshadowed by the Parkinson's condition. Each patient showed elevated free T4 and T3 and/or low TSH levels. Treatment of these patients with the use of anti-thyroid medications (and by surgery in one case) resulted in a normalization of thyroid activity and a marked improvement in their Parkinson's condition. In three of those ten patients on anti-thyroid therapy, medications for Parkinson's were successfully reduced. It was concluded that a hyperthyroid condition apparently leads to an increase in the catabolism of dopamine or modifies its receptors.

HTMA studies have also shown that calcium, magnesium, and copper deficiencies are commonly found in patients with Parkinson's Disease. Copper is involved in the production of dopamine-beta-hydroxylase, and it is probably not coincidental that copper also acts as a thyroid suppressor.

Manic Depression and the Thyroid

Manic Depression is also more frequently found in patients who are sympathetic dominant with elevated thyroid (Type I and 3). A report in the "New England Journal of Medicine", June
30, 1988 stated that neuro-psychiatric disorders due to cobalamine deficiency can commonly occur in the absence of anemia and that improvement is frequently noted with cobalamine therapy.

As in Parkinson's Disease, we find that the thyroid is elevated in patients with manic-depressive disorders. Lithium, a mineral used for many years in the treatment of manic depression, has been proven helpful in controlling these symptoms. Lithium is known to suppress thyroid activity, which could also be the mechanism behind its effects. In addition, cobalt and vitamin B12 are thyroid inhibitors, which could also explain their beneficial effect upon neuro-psychiatric disorders.

**Diabetes**

Adult onset diabetes is associated with parasympathetic dominance in which we usually find low thyroid and low adrenal function, with increased endocrine pancreatic and parathyroid activity. It is now becoming more recognized that low thyroid is found in patients with adult onset diabetes, whereas juvenile diabetes is associated with sympathetic dominance.

It should be concluded that any abnormal health condition results from a complex of disturbances. Thus, treating the patient as a whole may produce more rewarding results than treating only their condition.