## CHRONIC FATIGUE SYNDROME AND ADRENAL FUNCTION

This is a thoughtful discussion on the relationship between chronic fatigue syndrome and the endocrine system, specifically the hypothalamic-pituitary-adrenal axis. The author argues against the cause of chronic fatigue syndrome as a single entity, even though it appears to be precipitated by an infectious illness and exacerbated by physical and emotional factors. The clinical overlap between chronic fatigue syndrome and a wide variety of primary psychiatric illnesses may reflect biological events, stemming from infectious and non- infectious events. Though there may be other endocrine disturbances, this research group has focused on the functional integrity of the hypothalamic-pituitaryaxis (HPA). Frequently, patients with chronic fatigue syndrome report the onset of their illness following a significant period of stress. The course of the syndrome waxes and wanes, with subsequent periods of physical and emotional stress. The hypothalamic pituitary axis is considered to be the prototypical hormonal system of the body. A wellestablished phenomenon is the over-activity of the hypothalamic pituitary axis during major depression. The authors have found in chronic fatigue states there appears to be a reduction in plasma and urinary glucocorticoid levels that occurs by failure in the central activation of the HPA axis. It is interesting that many of the clinical features of chronic fatigue syndrome are similar to those with glucocorticoid deficiency. These symptoms include debilitating fatigue, abrupt onset by a stressor, feverishness, joint and muscle pain, lymph node swelling, post exertional fatigue and exacerbation of allergic responses and disturbances of mood and sleep. The authors believe it is unreasonable to assume that patients with chronic fatigue syndrome represent a discrete disease with a singular cause. Chronic fatigue should be characterized as a clinical condition rather than a diagnosis. The authors conclude that the reduction of glucocorticoid secretion is an important component in the development of many of the signs and symptoms that occur with chronic fatigue syndrome. 19758

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This is a very difficult article to summarize, but I whole- heartedly agree with the conclusion. It is supported by the work of Dr. William McK. Jefferies, M.D., an endocrinologist who has pioneered the work of using low doses of cortisone in the treatment of subclinical adrenal insufficiency which has resulted in improvement in a variety of disorders including chronic fatigue syndrome. Nutrients that help with the support of the adrenal gland include vitamin C, where one of the highest concentrations in the body is found, zinc, pantothenic acid and magnesium. Reduction of simple sugar intake and stimulants such as caffeine and coffee, along with frequent small meals and reduction of stress can assist in normalizing adrenal gland function. This article really puts the finger on the multifactorial cause of chronic fatigue syndrome that integrates the mind, body, the psychiatric, psychological and physiologic causes. Uses of physiologic doses of cortisone, not high doses, can have a profound effect on improving chronic fatigue and is very safe.