

# STRESS FACTS

Autoimmune disorders, chronic fatigue syndrome, depression and allergies seem to share a common denominator, best described as “A defective Hypothalamic-Pituitary-Adrenal (HPA) axis response to stress....”

W. McK, Jefferies, *Cortisol & Immunity*, Med. Hypoth. 34: 198-208 (1991)

Evidence of impaired activation of the HPA axis in patients with **Chronic Fatigue Syndrome**.

Mark A. Diametric, et al., *J. Clinical Endocrinology & Metabolism* 73:1224 (1991)

The temporal **cortisol in 40-50% of depressed individuals is elevated** over the entire day with special reference to the midnight elevation.

Croes, S., et al., *Psychoneuroendocrinology* 18(1):23 (1993)

Among the features of this syndrome (**Chronic Fatigue**) is a high prevalence of allergy.

Straus, S., et al., *J. Allergy & Clinical Immunology* 81:79 (1988)

The abnormalities in the HPA axis found in some patients with **AIDS**, suggest that HPA dysfunction might be a factor in the progression of the disease.

*Cortisol & Immunity*, Jefferies, W. McK., *Medical Hypothesis* 34:198-208 (1991)

Cortisol elevation leads to **hippocampal (brain) damage** in animal studies.

Sapolsky, et al., *Endocrinology Rev.* 7:284 (1986)

Research suggests that **Alzheimer patients** have an elevated Cortisol to DHEA ratio.

Sinderland, et al., *Lancet* II 570 (1989)

Plasma concentrations of DHEA(S) are significantly decreased in women with primary **hypothyroidism**, when compared to age matched controls.

Bassi, F., et al., *Clinical Endocrinology* 6:5

The Cortisol to DHEA ratio is depressed in individuals with **panic disorder**.

Fava, M., et al., *Psychiatric Res.* 28:345 (1989)

Men who survived **myocardial infarcts**, at least 6 months earlier, had significantly higher DHEA(S) than age matched controls.

Zumoff, B., et al., *J. Clinical Endocrinology & Metabolism* 54:534 (1982)

**High carbohydrate diets are associated with** an increase in testosterone and a **decrease in cortisol levels** when compared with high protein diets.

Anderson, K., et al., *Life Sciences* 40:1761 (1987)

There is evidence that DHEA has a stimulatory effect on intestinal calcium absorption mediated by Vitamin D metabolism.

Nordin, et al., *J. Clinical Endocrinology & Metabolism* 60:651 (1985)

The cortisol secretion rate is increased in **obese individuals....**

Strain, G. W., et al. *Metab. Clin. Exp.* 29:980 (1980)

Animal research indicates that DHEA has a direct stimulating effect on T-lymphocytes

Daynes, R. et al. *Eur. J. Immunol.* 20:793 (1990)