

CORTISOL PROFILE (serum)

Lifestyle, physical and psychological stresses put constant demands on the adrenal glands. If they get depleted adrenal fatigue or insufficiency may be experienced. Symptoms include fatigue, hypotension, and lowered resistance to stress, salt cravings, hypoglycaemia and lowered immunity. Adrenal insufficiency frequently plays a role in conditions such as chronic fatigue syndrome, allergies, rheumatoid arthritis, post-traumatic stress syndrome, anorexia and most diseases for which corticosteroids are involved in the treatment. Assessing cortisol, DHEA and other adrenal hormone levels may help to identify these patients and will assist effective therapy.

Adrenal Stress

In the 21st century, stress for many individuals has become a common part of everyday life. As opposed to our early ancestors, who would have viewed stress in terms of heat, altitude, famine or predators, the stress that we commonly experience involves work demands, time pressures, conflicts, toxins, divorce and debt. This lifestyle, physical and psychological pressure puts constant demands on the adrenal glands. Although they are designed to cope with stress, changing physiological functions to deal with the 'fight or flight', the adrenal glands suffer in today's high stress society.

SYMPTOMS AND CONDITIONS ASSOCIATED WITH ADRENAL INSUFFICIENCY

Anxiety	Hypoglycemia
Alcoholism and drug addiction	Lack of stamina
Asthma, colds and other respiratory disorders	Mild depression
Allergies	Muscle weakness
Brain fog	Post-Traumatic Stress Syndrome
Chronic Fatigue Syndrome	Postural hypotension
Decreased ability to handle stress	Premenstrual syndrome and menopausal symptoms
Decreased immunity	Rheumatoid arthritis
Fatigue (fluctuates throughout the day, morning fatigue, energy at night)	Salt cravings
Flu-like symptoms	Sexual dysfunction
General lethargy	Most diseases for which corticosteroids are involved in the treatment

Adrenal Depletion and Adrenal Fatigue

If the adrenals get totally depleted a condition called Addison's disease is experienced. This is a rare but life threatening disorder. Most individuals however who have depleted adrenal glands are not medical emergencies. These people may be suffering from adrenal fatigue which is also known as hypoadrenia, sub-clinical hypoadrenia, sub-clinical adrenal exhaustion or adrenal insufficiency. Symptoms associated with adrenal insufficiency include fatigue, hypotension, and lowered resistance to stress, salt cravings, hypoglycaemia and lowered immunity. Adrenal insufficiency also frequently plays a role in conditions such as chronic fatigue syndrome, allergies, rheumatoid arthritis, post-traumatic stress syndrome, anorexia and most diseases for which corticosteroids are involved in the treatment.

Cortisol Binding Globulin

Cortisol Binding Globulin (CBG) is the main plasma protein produced mainly in the liver. This CBG protein attached to stress hormone, cortisol. Serum total cortisol has traditionally been used for the interpretation of tests of the hypothalamic-pituitary-adrenal axis. Approximately 80% of total cortisol is bound to CBG and variation in CBG significantly affects serum total cortisol levels. Changes in CBG could give misleading results if only total cortisol is measured. The biologically active component of a hormone, free cortisol index is the unbound or free fraction and more useful in the interpretation of cortisol status and function.

Free Cortisol index

The free cortisol index (FCI) is the ratio of total cortisol and CBG. As 80% of total cortisol is bound to CBG, FCI is more reflective of hypothalamic-pituitary-adrenal function.

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- ❖ Cortisol, Cortisol Binding Globulin, Free Cortisol Index.

Other adrenal function tests available

- **Adrenal Hormone Profile - Level 1 (urine):** Cortisol, DHEA, 17-keto steroids, Total OH corticoids, ratios.
- **Adrenal Hormone Profile - Level 2 (urine):** Cortisol, DHEA, 17-keto steroids, Total OH corticoids, ratios, Aldosterone, Pregnenetriol (Pregnenolone).
- **Adrenal Hormone Profile - Level 3 (24 hour urine):** Cortisol, DHEA, 17-keto steroids, Total OH corticoids, ratios, Aldosterone, Androsterone, Etiocholanolone, 11-OH-Androsterone, 11-OH-Etiocholanolone, 11-ketoetiocholanolone, 11-ketoandrosterone, Pregnenetriol.
- **Anabolic/Catabolic Index (urine):** 17-keto steroids, Total OH corticoids, ratios.
- **Adrenocortex Stress Profile (saliva):** DHEAs 6-8am, Cortisol 6-8am, 12noon, 4pm, 8pm.

How to order a test kit:

To order a test kit simply request the test name and/or test code on a NutriPATH request form and have the patient phone NutriPATH Customer Service on 1300 688 522.



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