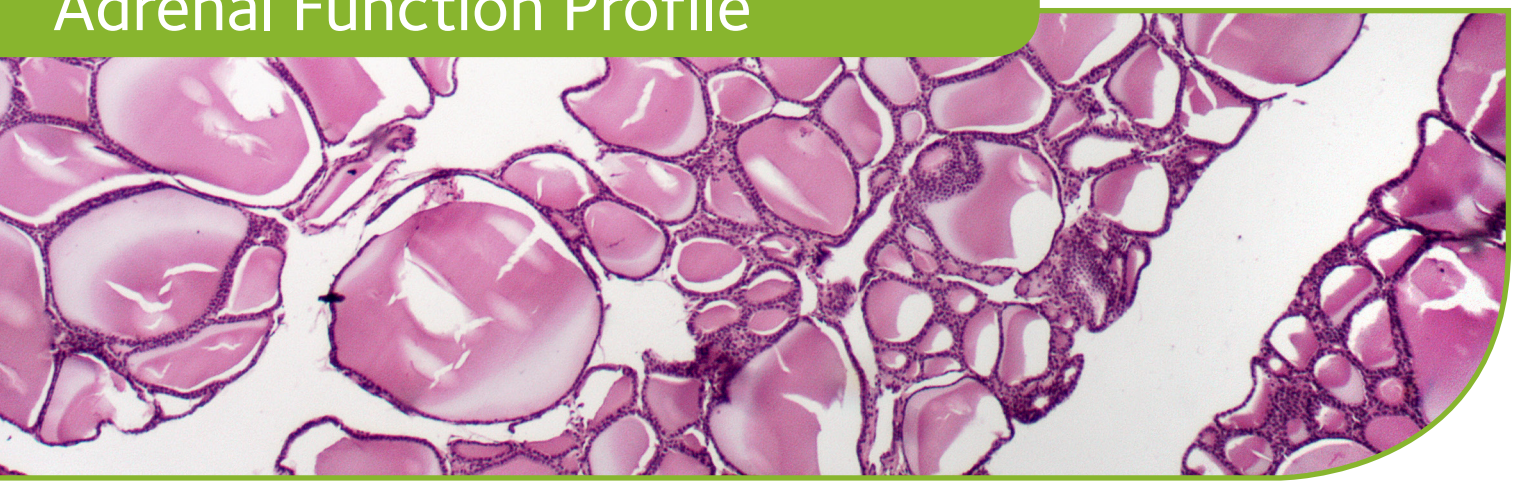
Test Information

Adrenal Function Profile



The adrenal glands are located at the top of the kidneys and produce hormones that help the body to control blood sugar, burn protein and fat, react to stressors and regulate blood pressure. They are made up of 2 distinct components, the adrenal cortex (outer part) which produces vital hormones such as cortisol, aldosterone and DHEA and the adrenal medulla (inner part) which produces adrenaline and nor-adrenaline.

Why Test Adrenal Function?

Optimally functioning adrenal glands are vital to the fundamental survival mechanism process of energy delivery, as they enable the body to balance energy expenditure with demand. In response to physiological or psychological stress, the adrenal glands should release appropriate levels of the necessary hormones to cope, however poor adrenal function can inhibit an individual's ability to do so effectively. In the case of adrenal insufficiency/fatigue, it has also been shown that disruption to the HPA axis can lead to lower thyroid function, as well as inhibition of androgen synthesis including DHEA and testosterone.

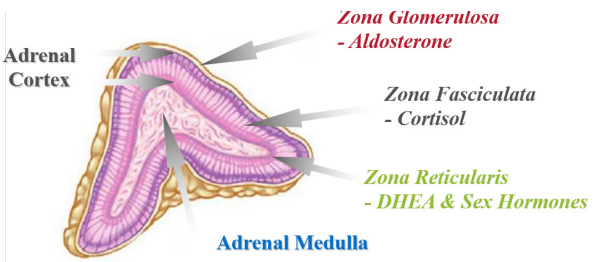
If a person experiences several of the symptoms highlighted below, including low energy and poor sleep quality, then this test may be extremely beneficial to help to identify whether the symptoms relate to adrenal insufficiency.

What Causes Adrenal Insufficiency?

During acute stress, the hypothalamus stimulates the adrenal medulla to release adrenaline and nor-adrenaline, which serves to enable a fight or flight response. If the stressor is still present after this phase, a more prolonged stress response is initiated. The body achieves this by increasing Adrenocorticotropic Hormone (ACTH) output from the pituitary gland, which prompts a subsequent release of cortisol and DHEA from the adrenal cortex. The rate of cortisol and DHEA production is regulated through the Hypothalamic-Pituitary-Adrenal (HPA) negative feedback loop. A sustained demand for cortisol causes on-going ACTH release by the pituitary gland. If this process consistently continues, without a recovery phase, the stress becomes chronic, and the adrenal glands will eventually have trouble in meeting this demand and it can potentially lead to adrenal insufficiency/fatigue.

What are the Symptoms of Insufficiency?

- Low energy
- Craving salty foods
- Brain fog
- Poor sleep quality
- Difficulty waking
- Low libido
- Reliance on caffeine
- Weakened immunity
- Inability to handle stress
- Central weight gain



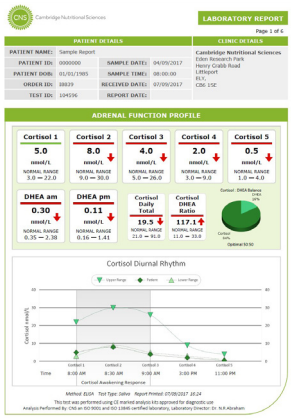
How Does the Test Work?

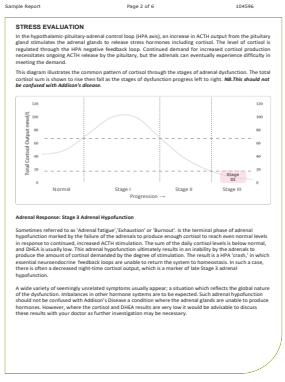
Cortisol levels should fluctuate considerably over a 24-hour period, with a spike upon waking and a steady decrease to their lowest concentration at night, before bed. Therefore, taking a single reading, or calculating a 24-hour average, is not sufficient. The magnitude of the morning spike and its subsequent reduction thereafter must be assessed to get a full picture of cortisol production and adrenal function.

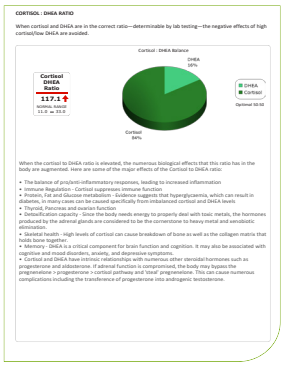
The CNS Adrenal Function Profile uses a convenient salivary sample collection method, taken at 5 intervals throughout the day. This enables a more precise measurement of an individual's 24-hour cyclic cortisol levels and accurately pinpoints the important cortisol surge. This test also includes a morning and afternoon DHEA measurement, to enable the identification of the hugely significant Cortisol/DHEA ratio.

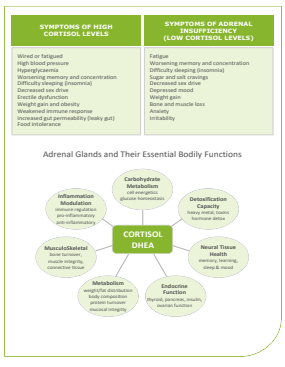
Test Results

A comprehensive test report, consisting of 6 pages, details the levels of cortisol throughout the day, as well as morning and afternoon DHEA concentration and the cortisol/DHEA ratio.









Supporting the Adrenals

If the results indicate low cortisol levels throughout the course of the day, a DHEA concentration below the normative reference range, or an elevated cortisol to DHEA ratio, then this would signify insufficient functioning of the adrenal glands. Should this be the case, it is advisable to make necessary lifestyle and dietary modifications which lessen the load placed upon the adrenal glands and instead support optimal function.

Improving sleep duration and quality, as well as employing stress management techniques such as mindfulness, meditation and healthy exercise are excellent lifestyle interventions which can help to decrease adrenal load. In addition, dietary interventions such as a reduction in sugar, caffeine, alcohol and processed food consumption, will help in this capacity, as they place extra load upon the adrenal glands. Increasing the intake of nutrient dense foods high in vitamins B and C, zinc and omega 3 (EPA/DHA) will further assist adrenal function.

Sample requirements and test turnaround

The test requires 5 salivary samples to be taken at specific times throughout the day. Results are available within 15 working days.

Importance Notice:

Before taking the test, it is important that the individual should:

- Be fully hydrated
- Avoid caffeine, alcohol or nicotine (don't smoke during the 2 hours prior to a sample collection).
- Avoid eating, teeth brushing/flossing or the use of mouthwash during the 2 hours prior to a sample collection
- Have no blood from the gums within the mouth (can artificially raise readings)
- Avoid the use of cortisol or hydrocortisone containing medications
- Follow the collection instructions accurately.
- Ensure that samples are taken at the specified times

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