

Adrenal Stress Testing

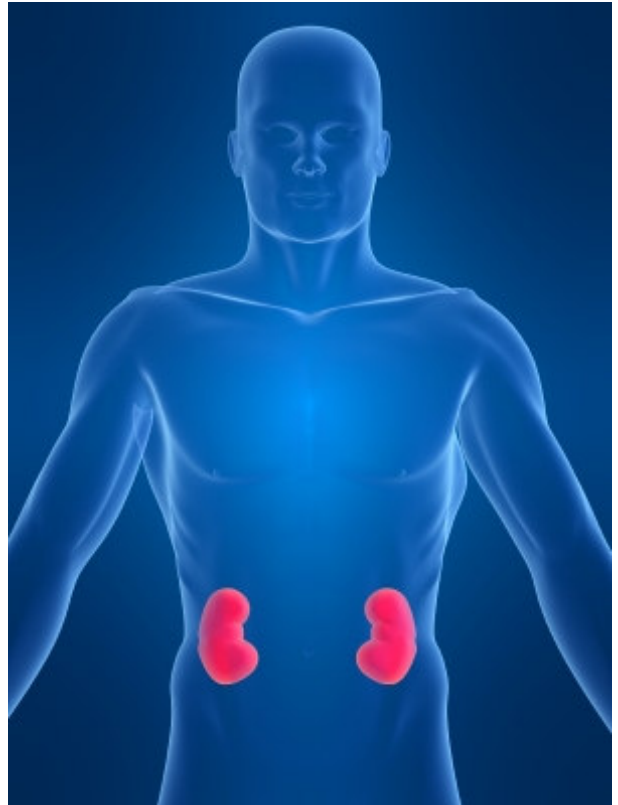
Adapted from information on the Metmetrix Clinical Laboratory website © 2007 Metametrix, Inc... Please note that Dr. Hall is the clinical consultant for Metametrix Clinical Laboratory.

Cortisol and DHEA (or DHEA-S) are important steroid hormones in the body and both are affected by chronic mental or physical stress. They affect carbohydrate, protein and fat metabolism. They also serve as modulators of thyroid function and help the body manage stress. When levels of DHEA and Cortisol change, it may indicate a significant variation in adrenal function that can impact a person's energy levels, emotions and even disease resistance.

Stress is a major underlying cause of many chronic illnesses from Chronic Fatigue syndrome to food and environmental allergies. A stressful lifestyle can lead to consistently high levels of Cortisol and low levels of DHEA which can be damaging to the brain and other organs or tissues. Cortisol elevation also impacts important immune responses such as the production of secretory IgA (sIgA) and antigliadin antibody (AGA) production. The Adrenal Stress Profile is a measure of an individual's response to stress. It is also an important tool for pointing to adrenal imbalances that may be impacting a patient's health.

Secretion of Cortisol, regulated by the sleep-wake cycle, is characterized by a steep increase in the early morning, followed by a gradual tapering off until late evening. Stress causes initially elevated Cortisol levels which continue as long as the stressor is present. Stress also overrides the negative control feedback of Cortisol in the hormone center of the brain (hypothalamus-pituitary axis or HPA). Prolonged stress overtime may lead to enlargement or hypertrophy of the cortex (middle layer) of the adrenal gland.

DHEA serves as a metabolic intermediate in the formation of male and female hormones – estrogen, testosterone and progesterone in the adrenal glands, ovaries and testes. DHEA has a very short life span in the blood and most is circulating in the blood in the form of DHEA-S providing a readily available source of DHEA to produce these hormones when needed. Low levels of DHEA or DHEAS can obviously affect the production of the male and female hormones.



The Adrenal Stress Profile is one of many cutting edge tests performed by Metametrix Clinical Labs and utilizes non-invasive testing of saliva. For more information about this very useful test, go to www.Metametrix.com.