Salivary Aldosterone Testing Now Available from Salimetrics

Salimetrics has developed and validated an enzyme immunoassay for the measurement of the steroid hormone aldosterone in saliva. This assay is exclusively available via Salimetrics salivary testing services and offered by the Salimetrics Laboratory. Researchers can now easily and non-invasively measure aldosterone levels in conjunction with other key biomarkers that are found in saliva, which will benefit those who are studying cardiovascular disease, obesity, diabetes, kidney disease, and psychiatric conditions.

State College, PA (PRWEB) October 04, 2012 -- Salimetrics’ list of measurable biomarkers in saliva has expanded once again with the addition of an assay for salivary aldosterone. This new assay has been designed and fully validated to provide reliable results with saliva samples and is available to researchers submitting samples to the Salimetrics Laboratory for testing.

Salivary aldosterone has recently been confirmed to be a reliable alternative to plasma sampling, and ongoing studies are investigating the use of salivary aldosterone for the screening and diagnosis of diseases that affect circulating levels of this hormone. (1,2) Like the other steroid hormones that can be measured in saliva, aldosterone diffuses readily from the circulation into saliva where it can be conveniently measured without the pain and inconvenience of drawing blood samples.

Aldosterone is an important steroid hormone that serves the crucial role of regulating sodium and potassium levels in the circulation, which in turn affects the maintenance of healthy blood pressure and cardiovascular function. Excess production of aldosterone is known to be involved in the development of hypertension, which is in turn associated with elevated risk of heart and kidney disease. Additionally, in recent years researchers have uncovered other “non-classical” effects of aldosterone within tissues in the heart, vascular system and kidneys, which lead to increased levels of inflammation and tissue damage. Receptors that bind aldosterone have also been identified for cell types other than those that regulate sodium and potassium balance, indicating that aldosterone may be involved in other cellular functions. (3)

Recent research has shown that excess aldosterone production can also be associated with obesity and the development of related diseases such as insulin resistance and diabetes. Elevated circulating aldosterone levels enhance tissue generation of reactive oxygen molecules that are involved in oxidative stress and inflammation. These factors then contribute to impaired pancreatic cell function as well as diminished skeletal muscle insulin metabolic signaling. (4)

One of the mechanisms that governs the release of aldosterone into the circulation is the release of the pituitary hormone ACTH. (1) ACTH levels change in relation to stress and they are also altered in certain psychiatric conditions. ACTH enters the circulation and signals the adrenal glands to release aldosterone, while at the same time signaling the release other adrenal steroid hormones. These include the principal stress hormone cortisol and the stress-buffering hormone dehydroepiandrosterone (DHEA). It is therefore expected that many researchers who are investigating the interactions between stress, mental health, and physical health will be interested in measuring salivary aldosterone along with other stress-related biomarkers found in saliva, such as cortisol, DHEA, and the autonomic nervous system marker α-amylase.

References:


About Salimetrics:

Founded in 1998, Salimetrics, LLC supports researchers, the immunodiagnostic industry, and functional testing laboratories around the world with innovative salivary immunoassay products and services. Salimetrics’ assay kits and CLIA-certified testing services measure biomarkers related to stress, behavior and development, inflammation, and immune function, including: alpha-amylase, androstenedione, blood contamination, chromogranin A, cortisol, cotinine, C-reactive protein, DHEA, DHEA-S, estradiol, estriol, estrone, IL-1b, IL-6, melatonin, progesterone, 17α-hydroxyprogesterone, secretory IgA, testosterone, and TNF-a. Salimetrics also provides salivary DNA analysis. The company is based in State College, Pennsylvania, with offices in the UK and distributors around the world. For more information, visit Salimetrics on the web at

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