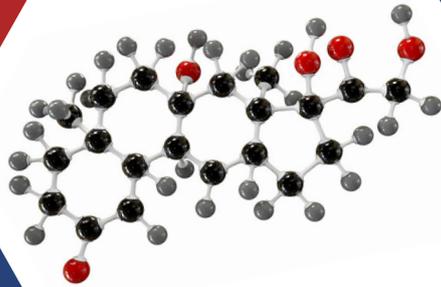


HAIR CORTISOL ANALYSIS



THE IMPORTANCE OF TESTING

Chronic high circulating cortisol levels have negative effects on the body, such as slowed wound healing and cognitive impairments to name a few. Hence this stress response through the HPA axis is sought to be the major physiological mechanism through which stress influences disease states. (Karlén et al. BMC Clinical Pathology 2011, 11:12)

A study by Lucia et al. demonstrated an increase in hair cortisol in depressed patients versus healthy controls. (Lucia et al. Stress, 2011 1-6) A study by Karlen et al., concluded that hair cortisol serves as a retrospective biomarker of increased cortisol reflecting exposure to major life stresses in young adults. (Karlén et al. BMC Clinical Pathology 2011, 11:12) Another study from Karen et al. studied expecting mothers' hair cortisol levels as well their babies. The study concluded that there was a correlation between hair cortisol levels in mothers and their children, suggesting a maternal calibration to the child's HPA axis. (Karlen et.al Pediatrics. 2013)

The research is promising and the versatile use in helping so many different types of patients makes this test an asset in your practice. In addition to using Hair Cortisol with your patients, valuable information regarding the adrenal glands can also be taken from the Hair Tissue Mineral Analysis.



SCREENING

Currently, measuring cortisol is the best way to biologically understand the stress response through the HPA axis. Cortisol is most often measured in urine, saliva and blood. Although these methods can be insightful they only cover a spot time interval (24 hours) and are not good at predicting chronic or longitudinal stress. Because of these drawbacks, a better procedure for determining long term exposure to stress was devised. Using hair tissue has become a viable and widely studied means to look at one's stress response over months vs. hours.

RESULTS YOU CAN UNDERSTAND

Your cortisol report is a measurement of the picograms of cortisol per milligram as analyzed in the hair sample provided.

The results presented in the report are applied to a scale determined by CanAlt research and several notable publications. Scales of cortisol concentrations are dependent on the analytical procedures used in the laboratory. Variations in distribution may occur based on processes performed in the laboratory like washing the hair prior to extraction. These processes may not be part of all laboratory procedures as there is no regulatory procedure.

Note: The assay for cortisol is performed using antibodies for cortisol following the hair extraction. As with any antibody cross-reactivity may occur. The principal cross-reactivity with the assay antibody is Prednisolone/Prednisone. The cortisol readings may be elevated if the patient is taking these steroids.

Very high cortisol is also an indicator of "Cushing Syndrome" and very low cortisol is an indicator of "Addison Syndrome", both serious conditions. Very high or very low cortisol can indicate metabolic disorders.



HOW TO TAKE A SAMPLE

1. Take hair sample from clean, new hair growth at the nape of the neck
 - A sample length of 1 to 1.5 inches is optimal
 - A sample size of about 500mg or about one tablespoon is sufficient
 2. Seal in a plastic bag
 3. Submit to your health care professional for analysis
- * If head hair is not available, then finger or toe nails can be substituted.



ABOUT US

Canadian Alternative Health Laboratories is a Canadian owned company dedicated to providing trace mineral and toxic metal screening and support services to professional health practitioners. Committed to the philosophies of Natural Medicine and to the advancement of human health, CanAlt understands the needs of our partners in health care. CanAlt's integrated approach to patient diagnosis and assessment is easy and affordable.

WHY WORK WITH US?

We are licensed as a Medical Laboratory by the Ontario Ministry of Health and operating as an ISO 15189 Plus™ accredited medical laboratory.



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