

Authorizing Clinician

Patient

Collected Received Reported

BioHealth Laboratory
23900 Hawthorne Blvd, Suite 150
Torrance, CA 90505

Rebecca Stein

Gender: Female

01/08/2017

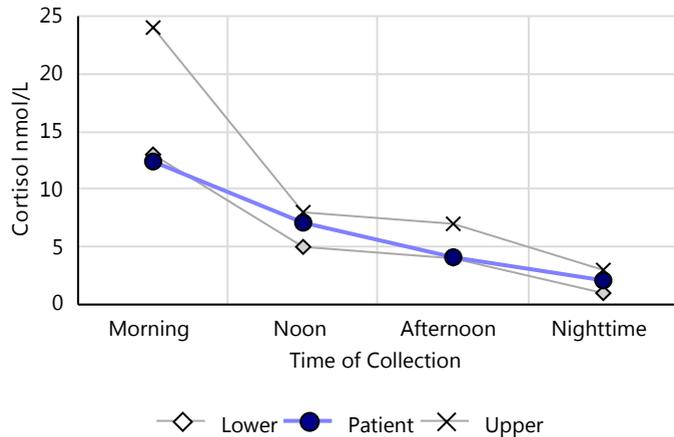
01/10/2017

01/09/2017

DOB: 11/26/1968

HPA Stress Profile +6 with SIgA (#205AE-S)

Cortisol Diurnal Rhythm



Cortisol and DHEA-S Results

Parameter	Result	Reference Range	Units
Cortisol - Morning	12.4	13.0 - 24.0	nmol/L
Cortisol - Noon	7.1	5.0 - 8.0	nmol/L
Cortisol - Afternoon	4.1	4.0 - 7.0	nmol/L
Cortisol - Nighttime	2.1	1.0 - 3.0	nmol/L
Cortisol - Sum	25.7	23.0 - 42.0	nmol/L
DHEA-S Morning	2.4	1.0 - 10.0	nmol/L
Cortisol:DHEA-S Ratio	5.2 : 1	**	Ratio

** A new Cortisol:DHEA-S ratio reference range is currently being determined by analysis of patient data from the newly improved test conditions.

Cortisol has one of the most distinct circadian rhythms in human physiology. This is regulated by the central clock located in the suprachiasmatic nucleus of the hypothalamus. Cortisol acts as a secondary messenger between central and peripheral clocks, hence its importance in the synchronization of body circadian rhythms. Optimal regulation of the hypothalamic-pituitary-adrenal (HPA) axis is critical for a successful response to any stressor as well as in non-stressful situations. Dysregulation of the HPA axis in basal conditions or in response to acute or chronic (including psychosocial) stress is closely related to the onset and/or progression of many diseases.

The anabolic steroid, dehydroepiandrosterone sulfate (DHEA-S), is secreted from the adrenal cortex. It plays a significant role in the body as a precursor to sex steroids as well as a role in HPA response to stress.

The cortisol-to-DHEA-S ratio is generally considered to be a measure of catabolic vs. anabolic activities, but it may be better described as the overall burden of glucocorticoid signaling on tissues, since DHEA acts not only as an anabolic hormone, but appears to function to down-regulate the cellular effects of cortisol. Therefore, the signaling burden of cortisol is not just a function of available free cortisol, but of the DHEA-S available as an opposing signal.

For complimentary clinical and interpretive support, contact the lab at the numbers provided above to communicate with actively practicing clinicians with extensive experience in lab assessments and therapeutic options. Visit www.biohealthlab.com for more information.

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Parameter	Result	Units	Reference Range	
Estradiol	1.1	pg/mL	FEMALE:	
			Follicular Phase	1.0 - 5.0 pg/mL
			Midcycle	3.0 - 8.0 pg/mL
			Luteal Phase	1.0 - 5.0 pg/mL
			Postmenopausal	0.5 - 3.0 pg/mL
Physiological Range	4.0 - 14.0 pg/mL			
			MALE:	1.0 - 3.0 pg/mL
Estriol	18.9	pg/mL	FEMALE:	2 - 98 pg/mL
			MALE:	0.5 - 40 pg/mL
Progesterone	123.9	pg/mL	FEMALE:	
			Premenopausal	50 - 400 pg/mL
			Postmenopausal	5.0 - 95 pg/mL
			Physiological Range	100 - 500 pg/mL
			MALE:	5.0 - 100 pg/mL
Melatonin (Bedtime)	17.4	pg/mL	12.0 - 35.0 (MALE/FEMALE)	
Testosterone	23.8	pg/mL	FEMALE:	20 - 60 pg/mL
			MALE:	40 - 130 pg/mL
Estrone	28.7	pg/mL	20.0 - 50.0 (MALE/FEMALE)	

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HPA Stress Profile +6 with SIgA (#205AE-S)

Parameter	Result			Reference Range	Units
Secretory IgA (Saliva)	220*	LOW	EQUIVOCAL	ELEVATED	0 - 330.0 ug/mL

Elevated levels of sIgA may be an indication of acute stress, intestinal barrier dysfunction, acute oral infection, acute GI infection, heavy smoking, alcoholism, periodontitis, dental plaque accumulation, and/or intestinal barrier dysfunction. High sIgA results may be indicative of active GI infections.

Low levels of sIgA may be an indication of autonomic nervous system imbalance, chronic stress, damage to the intestinal barrier, chronic GI infections, food intolerance, gliadin intolerance, inflammatory bowel disease, and/or use of anti-inflammatory drugs.

Equivocal levels of sIgA need to be considered in the context of the patient's overall presentation and available diagnostic data.

The current established reference ranges for sIgA: Low: <75.0 ug/mL Equivocal: 75.0-145.0 ug/mL Elevated: 145.0-330.0 ug/mL