

2018 08 06 200 U

Ordering Provider:
John Doe, ND

Samples Received

08/06/2018

Report Date

08/10/2018

Samples Collected

Urine - 07/30/18 07:40

Urine - 07/30/18 10:05

Urine - 07/30/18 16:20

Urine - 07/30/18 23:00

Patient Name:

Patient Phone Number:

Gender	Last Menses	Height	Waist
Female	06/01/2018	5 ft 6 in	25 in
DOB	Menses Status	Weight	BMI
12/14/1974 (43 yrs)	Pre-Menopausal	115 lb	18.6

TEST NAME	RESULTS 07/30/18	RANGE
Urinary Free Diurnal Cortisol		
Free Cortisol	15.15	7.8-29.5 µg/g Cr (1st Morning)
Free Cortisol	153.58 H	23.4-68.9 µg/g Cr (2nd Morning)
Free Cortisol	47.72 H	6.0-19.2 µg/g Cr (Evening)
Free Cortisol	16.06 H	2.6-8.4 µg/g Cr (Night)
Urinary Free Diurnal Cortisone		
Free Cortisone	39.48	31.6-91.6 µg/g Cr (1st Morning)
Free Cortisone	265.11 H	63.3-175.8 µg/g Cr (2nd Morning)
Free Cortisone	111.63 H	30.6-88.5 µg/g Cr (Evening)
Free Cortisone	55.61 H	15.5-44.7 µg/g Cr (Night)
Urinary Diurnal Melatonin MT6s		
Melatonin	14.72 L	18.0 - 40.9 µg/g Cr (1st Morning)
Melatonin	11.09	7.3 - 31.9 µg/g Cr (2nd Morning)
Melatonin	2.38 H	0.7 - 2.2 µg/g Cr (Evening)
Melatonin	1.63 L	1.7 - 11.1 µg/g Cr (Night)
Urinary Creatinine		
Creatinine	1.15	0.3-2.0 mg/mL (1st morning)
Creatinine	0.71	0.3-2.0 mg/mL (2nd morning)
Creatinine	0.94	0.3-2.0 mg/mL (Evening)
Creatinine	0.45	0.3-2.0 mg/mL (Night)

TEST NAME

RESULTS | 07/30/18

RANGE

<dL = Less than the detectable limit of the lab. N/A = Not applicable; 1 or more values used in this calculation is less than the detectable limit. H = High. L = Low.

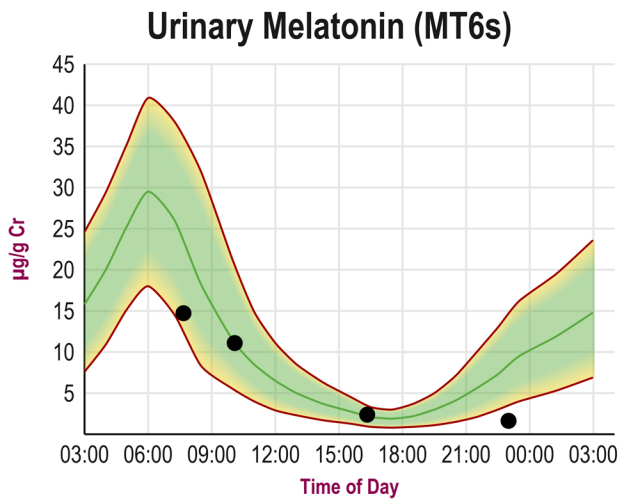
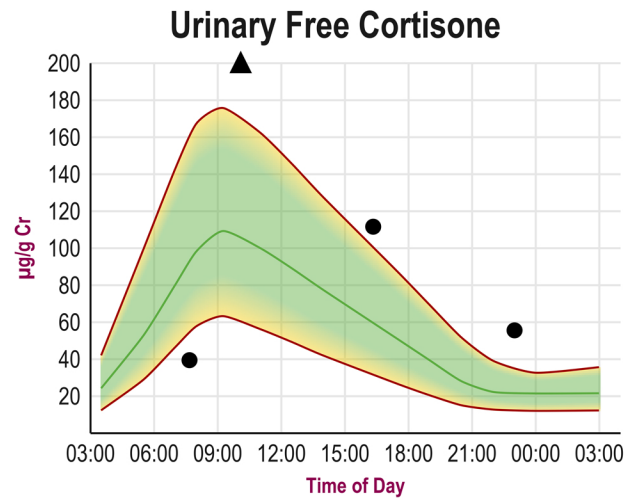
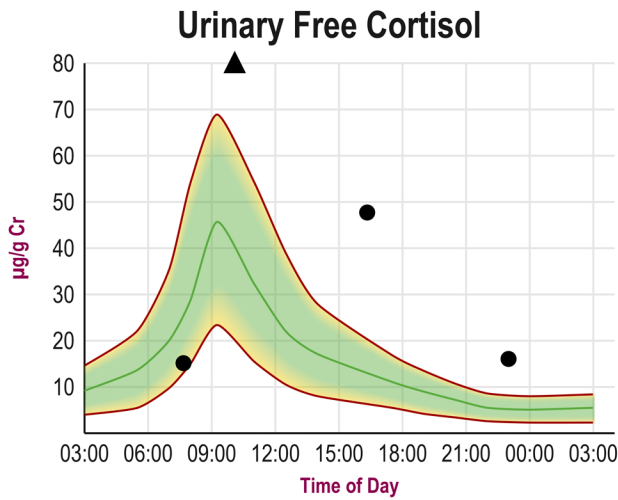
Therapies

oral Seasonique -BC (Pharmaceutical) (1 Days Last Used)

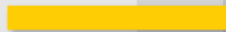






Graphs

Disclaimer: Graphs below represent testers not using hormones; results may not plot for supplementation. Graphs are provided for informational purposes only. Please see lab comments if results are higher or lower than expected.

— Average ▼▲ Off Graph



Disclaimer: Symptom Categories below show percent of symptoms self-reported by the patient compared to total available symptoms for each category. For detailed information on category breakdowns, go to www.zrtlab.com/patient-symptoms.

SYMPTOM CATEGORIES	RESULTS 07/30/18
Estrogen / Progesterone Deficiency	25% 
Estrogen Dominance / Progesterone Deficiency	7% 
Low Androgens (DHEA/Testosterone)	11% 
High Androgens (DHEA/Testosterone)	2% 
Low Cortisol	18% 
High Cortisol	29% 
Hypometabolism	6% 
Metabolic Syndrome	0%

SYMPTOM CHECKLIST	MILD	MODERATE	SEVERE
Aches and Pains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Acne	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Allergies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anxious	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bleeding Changes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blood Pressure High	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blood Pressure Low	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blood Sugar Low	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Body Temperature Cold	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bone Loss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Breast Cancer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Breasts - Fibrocystic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Breasts - Tender	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chemical Sensitivity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cholesterol High	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Constipation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Depressed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fatigue - Evening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fatigue - Morning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fibromyalgia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Foggy Thinking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Goiter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hair - Dry or Brittle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hair - Increased Facial or Body	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hair - Scalp Loss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Headaches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hearing Loss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heart Palpitations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hoarseness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hot Flashes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Incontinence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Infertility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Irritable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Libido Decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Memory Lapse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mood Swings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Muscle Size Decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nails Breaking or Brittle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nervous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SYMPTOM CHECKLIST	MILD	MODERATE	SEVERE
Pulse Rate Slow			
Rapid Aging			
Rapid Heartbeat	■		
Skin Thinning	■		
Sleep Disturbed	■	■	■
Stamina Decreased	■		
Stress	■	■	
Sugar Cravings	■		
Sweating Decreased	■		
Swelling or Puffy Eyes/Face	■		
Tearful	■		
Triglycerides Elevated	■		
Urinary Urge Increased	■		
Uterine Fibroids	■		
Vaginal Dryness	■		
Water Retention	■		
Weight Gain - Hips	■		
Weight Gain - Waist	■		

Lab Comments

URINARY FREE CORTISOL (F) AND CORTISONE (E)

Urinary free cortisol (F) and cortisone (E) are following a circadian rhythm but are outside (high) the reference ranges throughout most of the day. Levels of F and E are within normal reference ranges in the first urine void, but then rise sharply in the second void, and stay high throughout the remainder of the day.

In a normal individual without significant stressors F and E should follow the expected time-dependent (high morning, low night) circadian rhythms depicted in the graphs. In healthy individuals, F and E should be low in the first morning void, rise to peak level within several hours after awakening, and then begin a slow decrease to baseline levels by night. F and E reach a nadir about 2 am and then begin a slow rise throughout the early morning to peak again shortly after awakening. In this individual F and E follow an elevated circadian rhythm with levels that are much higher than range. The precipitous rise in F and E in the second urine void, followed by return to expected nighttime baseline strongly suggests use of a glucocorticoid (cortisol), an adrenal adaptogen that stimulates adrenal cortisol synthesis, or a medication that increases adrenal cortisol synthesis (none indicated).

A normal daily output of cortisol and normal circadian rhythm is essential to maintain normal metabolic activity, help regulate steady state glucose levels (important for brain function and energy production), and optimize immune function. Low or high cortisol, especially at the wrong time of day can disrupt the beneficial effects seen with physiological levels of cortisol. Persistently high levels of cortisol, particularly at night, and disrupted circadian rhythms contribute to sleep disturbances and increased risk for developing metabolic syndrome (Venneri MA. J Clin Endocrinol Metab, 2018; Bahrami-Nejad Z. Cell Metabolism 2018).

The most common stressors that can raise cortisol levels include psychological stressors (emotional), physical insults (surgery, injury, diseases), chemical exposure (environmental pollutants, excessive medications), hypoglycemia (low blood sugar), and pathogenic infections (bacterial, viral, fungal). Acute stressors such as exercise are expected to raise cortisol levels over the interval of the stressor, which is a normal response to the stressor(s) and is essential for optimal health. Chronic and persistent stressors that lead to chronic high cortisol production by the adrenal glands over time (months/years) cause excessive breakdown of normal tissues (muscle wasting, thinning of skin, bone loss) and immune suppression.

For additional information about strategies for supporting adrenal health and reducing stress and associated high cortisol, the following books are worth reading: "Adrenal Fatigue", by James L. Wilson, N.D., D.C., Ph.D.; "The Cortisol Connection", by Shawn Talbott, Ph.D.; "The End of Stress As We Know It" by Bruce McEwen; "The Role of Stress and the HPA Axis in Chronic Disease Management" by Thomas Guillems, PhD.

MELATONIN METABOLITE 6-SULFATOXYMELATONIN (MT6s)

The melatonin metabolite, 6-sulfatoxymelatonin (MT6s) is within normal reference ranges throughout the first part of the day, but is low before bed at night. Otherwise MT6s is following an expected circadian rhythm. In a healthy individual MT6s should be at its highest level in the first morning void and then rise again with the onset of night, which is reflective of diminishing light. Melatonin in the night void is low, reflecting lower melatonin production during the night. Low night melatonin is usually caused by excessive exposure to light (e.g. TV, computers) before bed. During the night melatonin synthesis should peak and result in increased levels of the urinary metabolite MT6s that are measured in the first morning void.