

TEST REPORT

2018 08 15 111 SB

Ordering Provider:
David Getuwell, MD

Samples Received
08/15/2018

Report Date
08/20/2018

Samples Collected

Saliva - 08/12/18 07:40
Saliva - 08/12/18 12:00
Saliva - 08/12/18 18:00
Saliva - 08/12/18 22:00
Blood Spot - 08/12/18 07:40

Sample report is provided for display only and may not represent the actual biomarkers being ordered/tested

Patient Name: Comprehensive Male Profile I
Patient Phone Number: 555 555 5555

Gender Male	Height 5 ft 7 in	Waist 31 in
DOB 11/29/1983 (34 yrs)	Weight 160 lb	BMI 25.1

TEST NAME	RESULTS 08/12/18	RANGE
Salivary Steroids		
Estradiol	<0.5 L	0.5-2.2 pg/mL
Testosterone	81	44-148 pg/mL (Age Dependent)
DHEAS	12.4	2-23 ng/mL (Age Dependent)
Cortisol	11.8 H	3.7-9.5 ng/mL (morning)
Cortisol	6.3 H	1.2-3.0 ng/mL (noon)
Cortisol	1.3	0.6-1.9 ng/mL (evening)
Cortisol	0.5	0.4-1.0 ng/mL (night)
Blood Spot		
PSA	10.8 H	<0.5-4 ng/mL (optimal 0.5-2)
Blood Spot Thyroids		
Free T4*	1.6	0.7-2.5 ng/dL
Free T3	3.3	2.4-4.2 pg/mL
TSH	1.2	0.5-3.0 µU/mL
TPOab*	16	0-150 IU/mL (70-150 borderline)

<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. * For research purposes only.

Therapies

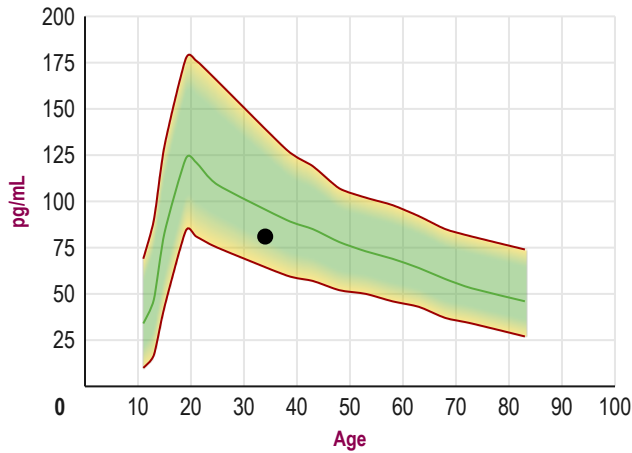
None

Graphs

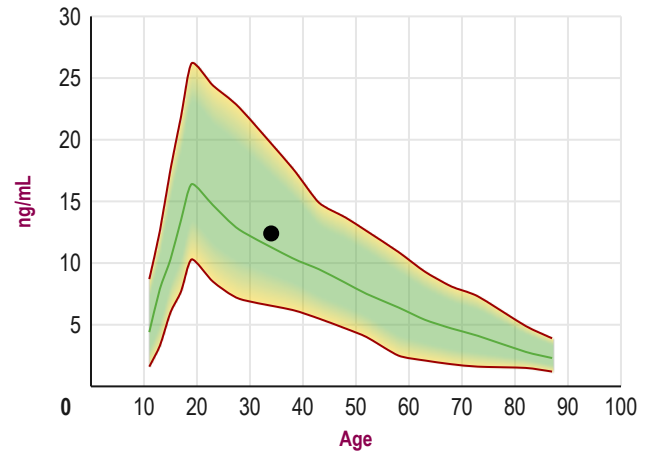
Disclaimer: Graphs below represent averages for healthy individuals not using hormones. Supplementation ranges may be higher. Please see supplementation ranges and lab comments if results are higher or lower than expected.

— Average ▼ Off Graph

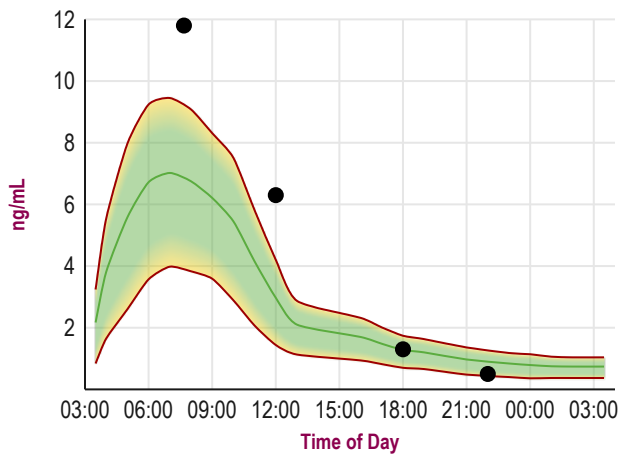
Saliva Testosterone



Saliva DHEAS



Saliva Cortisol



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 08/12/18
Estrogen / Progesterone Deficiency	10%
Estrogen Dominance / Progesterone Deficiency	3%
Low Androgens (DHEA/Testosterone)	23%
High Androgens (DHEA/Testosterone)	21%
Low Cortisol	35%
High Cortisol	31%
Hypometabolism	26%
Metabolic Syndrome	13%

SYMPTOM CHECKLIST	MILD	MODERATE	SEVERE
Acne			
Aggressive Behavior			
Allergies			
Anxious			
Apathy			
Blood Pressure High			
Blood Pressure Low			
Blood Sugar Low			
Body Temperature Cold			
Bone Loss			
Burned Out Feeling			
Chemical Sensitivity			
Cholesterol High			
Constipation			
Depressed			
Dizzy Spells			
Erections Decreased			
Fatigue - Evening			
Fatigue - Mental			
Fatigue - Morning			
Flexibility Decreased			
Forgetfulness Increased			
Goiter			
Hair - Dry or Brittle			
Hair or Skin Oily			
Headaches			
Hearing Loss			
Heart Palpitations			
Hoarseness			
Hot Flashes			
Infertility			
Irritable			
Joint Pain Increased			
Libido Decreased			
Mental Sharpness Decreased			
Muscle Size Decreased			
Muscle Soreness			
Nails Breaking or Brittle			
Neck or Back Pain			
Nervous			
Night Sweats			

SYMPTOM CHECKLIST	MILD	MODERATE	SEVERE
Numbness - Feet or Hands			
Prostate Cancer			
Prostate Problems			
Pulse Rate Slow			
Rapid Aging			
Rapid Heartbeat			
Ringing In Ears			
Skin Thinning			
Sleeping Difficulty			
Stamina Decreased			
Stress			
Sugar Cravings			
Sweating Decreased			
Swelling or Puffy Eyes/Face			
Triglycerides Elevated			
Urinary Urge Increased			
Urine Flow Decreased			
Weight Gain - Breast or Hips			
Weight Gain - Waist			

Lab Comments

Estradiol is low, which is common and expected in young men, particularly with low body fat. While lower levels of estradiol are normal in young men, very low levels can be caused by low testosterone (testosterone is an estradiol precursor) or medications (aromatase inhibitors often used in men on testosterone therapy) that inhibit the enzyme aromatase that converts testosterone to estradiol. Adequate levels of estradiol, in both men and women, is essential for optimal bone and brain health. Very low estradiol can lead to bone loss and increased fracture risk, which is more problematic in older thin men.

Testosterone is within mid-normal range. In healthy males from youth to middle age testosterone levels usually range from about 80-120 pg/ml. Healthy testosterone levels drop to about 60-80 pg/ml in men > 60 years of age. Supplementation with physiological amounts of androgens usually raises testosterone to levels seen in young men. Testosterone ranges are age specific. Normal age-dependent testosterone levels are usually associated with few symptoms of androgen deficiency, however, in some individuals with other hormonal problems (e.g. low IGF1, low thyroid, low or high cortisol) symptoms can be similar to androgen deficiency.

DHEAS is high-normal for the expected age range. DHEAS is highest during the late teens to early twenties (10-20 ng/ml) and drops steadily with age to the lower end of range by age 70-80 (2-9 ng/ml). High-normal age-range DHEAS levels are common in well trained athletes and individuals supplementing with DHEA or adrenal adaptogens that stimulate adrenal production of DHEA. High DHEAS may be associated with high androgen symptoms (loss of scalp hair, increased facial/body hair, acne).

Cortisol levels are high in the morning and at noon and fall to within range in the evening and at night. High cortisol levels in the morning and at noon may suggest an acute stressor or use of a corticosteroid-containing medication (e.g., prednisone, steroid inhaler, topical hydrocortisone). High cortisol production by the adrenal glands is a normal response to stress and is essential for health; however, if the stress is chronic and adrenal cortisol output remains high throughout the day and over a prolonged period of time (months/years), excessive breakdown of normal tissues (muscle wasting, thinning of skin, bone loss) and immune suppression can result. A persistently elevated cortisol, particularly if it is elevated throughout the day or high at night, is associated most commonly with symptoms of sleep disturbances, hot flashes and night sweats (even with normal estrogen levels), fatigue, depression, weight gain in the waist, anxiety and bone loss. High cortisol can impair the actions of other hormones such as insulin, leading to insulin resistance/metabolic syndrome (associated with weight gain in the waist, unhealthy blood lipids, high blood pressure). In addition, elevated cortisol can affect the action of thyroid hormones at the cellular level, leading to thyroid resistance despite normal thyroid hormone levels. Therefore, when cortisol levels are persistently high, other hormones (estrogens, androgens, insulin, thyroid) can be within normal range, or even high, yet symptoms indicate deficiency. Adequate rest and sleep, gentle exercise, meditation, proper diet (adequate protein), bio-identical progesterone, adrenal extracts, and nutritional (vitamins C and B-complex) and herbal supplements are some of the natural ways to help support adrenal function. Recommended reading: "Adrenal Fatigue: The 21st Century Stress Syndrome" by James L. Wilson, ND, DC, PhD; "The Cortisol Connection" by Shawn Talbott, PhD; "The End of Stress As We Know It" by Bruce McEwen.; "Awakening Athena" by Kenna Stephenson, MD.

PSA (Prostate Specific Antigen) is higher than the range of < 4 ng/ml and the optimal range of < 2 ng/ml (level retested and confirmed). A high PSA is usually caused by BPH (Benign Prostatic Hypertrophy), prostate cancer, prostate inflammation or infection, and prostate or perineal trauma. Ejaculation within 48-72 hr of blood collection may also cause a slight elevation in PSA. Prostate surgery can cause a significant rise in PSA outside the normal range and testing for PSA is not recommended for at least three weeks post surgery. Periodic repeat testing for PSA is recommended.

Thyroid hormones (free T4, free T3, TSH) and thyroid peroxidase antibodies are within normal ranges; however, this does not exclude the possibility of a "functional" thyroid deficiency caused by other hormonal imbalances such as excess estrogen, low progesterone, low testosterone, low or high cortisol, and low growth hormone (IGF-1). Testing for these hormones and correcting any abnormalities is recommended to optimize thyroid function and minimize any symptoms, should they be problematic.