TEST REPORT

8605 SW Creekside Place
Beaverton, OR 97008
Phone: 503-466-2445 Fax: 503-466-1636

ZRT LABORATORY

 # 2018 08 02 200 SB

Ordering Provider:
Jane Getuwell, MD

Samples Received
08/02/2018

Report Date
08/08/2018

Samples Collected
Saliva - 07/28/18 07:30
Saliva - 07/28/18 13:00
Saliva - 07/28/18 19:00
Saliva - 07/28/18 23:00
Blood Spot - 07/31/18 05:48

Patient Name: Comprehensive Female Profile II
Patient Phone Number: 555 555 5555

Gender	Last Menses	Height	Waist
Female	Unspecified	5 ft 8 in	Unspecified
DOB	**Menses Status**	**Weight**	**BMI**
9/30/1964 (53 yrs)	Hysterectomy (ovaries removed)	154 lb	23.4

TEST NAME	RESULTS | 07/28/18	03/01/18	02/26/18	RANGE
Salivary Steroids				
Cortisol	6.7	3.2 **L**		3.7-9.5 ng/mL (morning)
Cortisol	2.3	1.2		1.2-3.0 ng/mL (noon)
Cortisol	0.9	0.7		0.6-1.9 ng/mL (evening)
Cortisol	0.8	1.0		0.4-1.0 ng/mL (night)
Blood Spot Steroids				
Estradiol	69		73	43-180 pg/mL Premeno-luteal or ERT
Progesterone	11.6		31.5 **H**	3.3-22.5 ng/mL Premeno-luteal or PgRT
Ratio: Pg/E2	168		432	Pg/E2 (bloodspot-optimal 100-500)
Testosterone	97(1)		34(2)	(1) 20-130 ng/dL Premeno-luteal or TRT (2) 10-45 ng/dL Postmenopausal
SHBG	87			15-120 nmol/L
DHEAS	70			40-290 µg/dL
Blood Spot Thyroids				
Free T4*	1.1			0.7-2.5 ng/dL
Free T3	3.2			2.4-4.2 pg/mL
TSH	0.4 L			0.5-3.0 µU/mL
TPOab*	12			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.*

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David T. Zava, Ph.D.
Laboratory Director

Alison McAllister, ND.
(Ordering Provider unless otherwise specified on page 1)

Therapies

07/28/2018: 0.5mg topical Biestrogen (E2 + E3) (compounded) (1 Days Last Used)100mg topical Progesterone (compounded) (1 Days Last Used)1000mg oral Glycine (OTC) (1 Days Last Used)0.5mg topical Testosterone (compounded) (1 Days Last Used)5mg sublingual (SL) DHEA (OTC) (1 Days Last Used)50mcg oral Levothyroxine (T4) (Pharmaceutical) (1 Days Last Used)30mg oral Armour (glandular thyroid) (Pharmaceutical) (1 Days Last Used) oral T4-T3 (Pharmaceutical) (1 Days Last Used) GABA5mg oral Melatonin (OTC) (1 Days Last Used)10mg oral Pregnenolone (OTC) (1 Days Last Used)50mg oral 5-HTP (5-Hydroxytryptophan) (OTC) (1 Days Last Used)

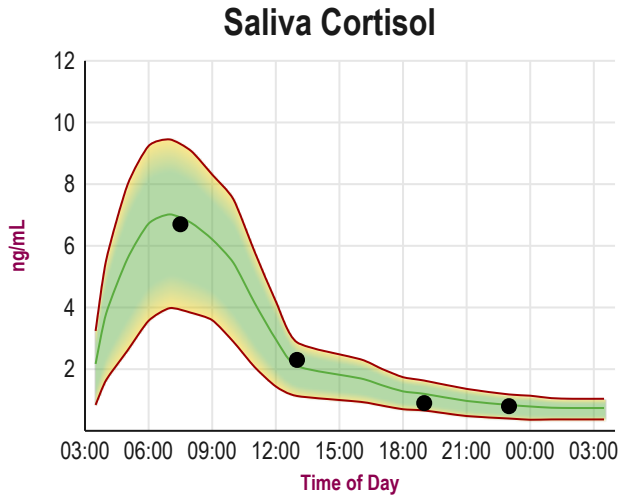
03/01/2018: 0.5mg topical Biestrogen (E2 + E3) (compounded) (23 Hours Last Used)100mg topical Progesterone (compounded) (23 Hours Last Used)

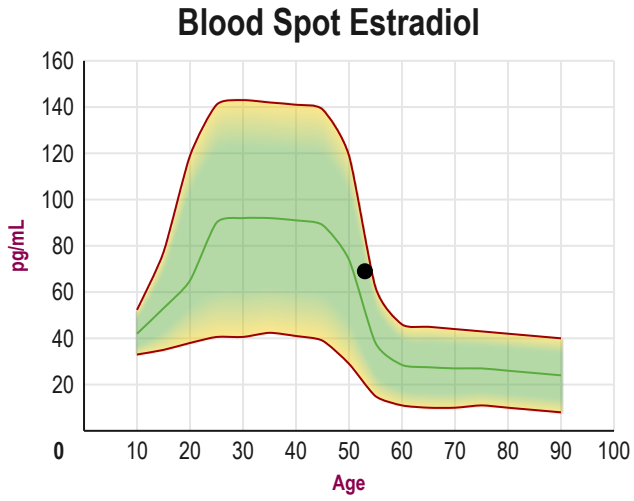
02/26/2018: 0.5mg topical Biestrogen (80/20 E3 + E2) (compounded) (1 Days Last Used)100mg topical Progesterone (compounded) (1 Days Last Used)

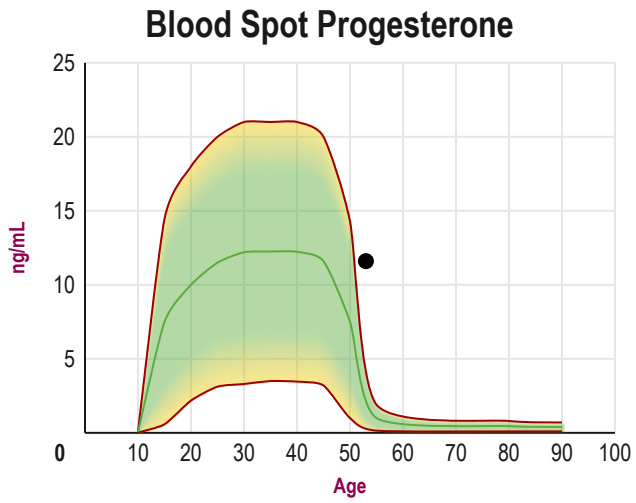
Graphs

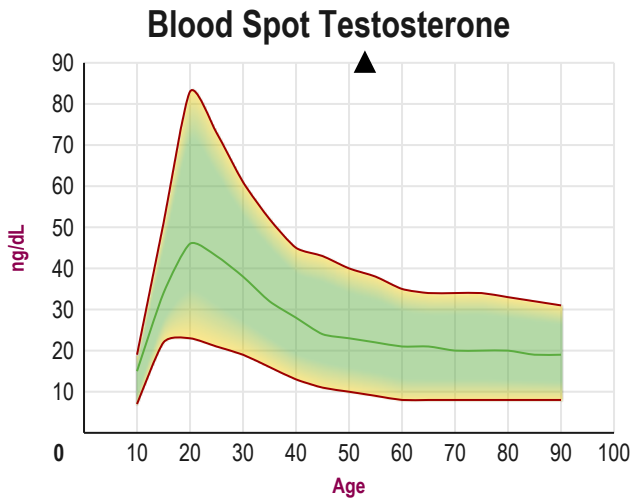
Disclaimer: Graphs below represent averages for healthy individuals not using hormones. Supplementation ranges may be higher. Please see supplementation ranges and lab comments if results are higher or lower than expected.

Average ▼▲ Off Graph









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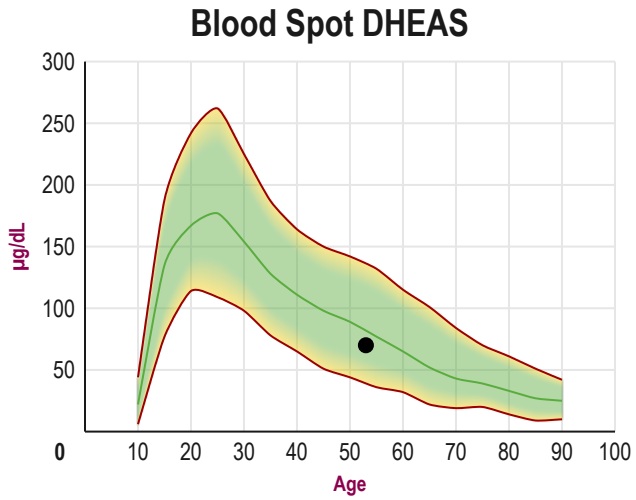

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Disclaimer: Symptom Categories below show percent of symptoms self-reported by the patient compared to total available symptoms for each category. For detailed information on category breakdowns, go to www.zrtlab.com/patient-symptoms.

SYMPTOM CATEGORIES	RESULTS | 07/28/18	03/01/18	02/26/18
Estrogen / Progesterone Deficiency	11%	14%	21%
Estrogen Dominance / Progesterone Deficiency	8%	11%	15%
Low Androgens (DHEA/Testosterone)	21%	36%	39%
High Androgens (DHEA/Testosterone)	0%	15%	7%
Low Cortisol	22%	45%	47%
High Cortisol	7%	12%	17%
Hypometabolism	9%	27%	25%
Metabolic Syndrome	0%	2%	9%

SYMPTOM CHECKLIST	1	2	3
Aches and Pains			
Acne			
Allergies			
Anxious			
Bleeding Changes			
Blood Pressure High			
Blood Pressure Low			
Blood Sugar Low			
Body Temperature Cold			
Bone Loss			
Breast Cancer			
Breasts - Fibrocystic			
Breasts - Tender			
Chemical Sensitivity			
Cholesterol High			
Constipation			
Depressed			
Fatigue - Evening			
Fatigue - Morning			
Fibromyalgia			
Foggy Thinking			
Goiter			
Hair - Dry or Brittle			
Hair - Increased Facial or Body			
Hair - Scalp Loss			
Headaches			
Hearing Loss			
Heart Palpitations			
Hoarseness			
Hot Flashes			
Incontinence			
Infertility			
Irritable			
Libido Decreased			
Memory Lapse			
Mood Swings			
Muscle Size Decreased			
Nails Breaking or Brittle			
Nervous			
Night Sweats			
Numbness - Feet or Hands			

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SYMPTOM CHECKLIST	1	2	3
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

Cortisol is within normal range throughout the day and symptoms of cortisol imbalance are minimal.

Estradiol (blood spot) is within mid-normal range following topical ERT. If symptoms/signs of estrogen imbalance are problematic, consider progesterone replacement therapy or dosage adjustment of progesterone if already used. Estradiol should be well balanced with progesterone to prevent symptoms of estrogen imbalance (ideal progesterone/estradiol ratio 100-500 when estradiol is within mid-normal range).

Progesterone (blood spot) is within the observed range (10-22.5 ng/ml) with progesterone therapy and appears to be quantitatively well balanced with estradiol (ideal ratio 100-500). Symptoms of estrogen imbalance are minimal, indicating that the progesterone dosage is appropriate.

Testosterone (blood spot) is within physiological range with topical testosterone therapy. Symptoms of androgen excess are minimal indicating that dosing is appropriate. When testosterone is delivered topically, the testosterone in capillary blood from the finger is more representative of the tissue testosterone level than is serum testosterone derived by venipuncture.

SHBG (Sex Hormone Binding Globulin) is within the high-normal range, consistent with estrogen supplementation. SHBG is a protein produced by the liver and released into the bloodstream in response to inceasing levels of estrogens. While SHBG is a relative index of the overall exposure of the liver to any form of estrogens (endogenous, pharmaceutical-ERT, xeno-estrogens-pollutants), other hormones such as insulin, thyroid, androgens, and glucocorticoids affect the livers ability to synthesize SHBG in response to estrogens. Thyroid hormone increases SHBG, while high insulin (insulin resistance), high androgens, and high glucocorticoids (cortisol) lower SHBG. These hormones that lower SHBG increase the bioavailability of estradiol and the likelihood of estrogen dominance symptoms.

DHEAS (blood spot) is within low-normal range. DHEAS is highest during the late teens to early twenties and then declines progressively with age to the lower levels of the range in healthy men and women. DHEAS is expected to be within the lower range in older individuals. In younger individuals, lower DHEAS is often associated with adrenal fatigue or removal of the ovaries. Low DHEAS is often associated with low testosterone (DHEA is a testosterone precursor) and symptoms of androgen deficiency (fatigue, depression, vaginal dryness, low libido, loss of muscle mass, bone loss, memory lapses). If symptoms of androgen deficiency are/become problematic consider DHEA therapy assuming cortisol is within normal range. DHEA therapy can cause a transient suppression of cortisol and exacerbate symptoms of cortisol deficiency if cortisol is low.

Free T4 and free T3 are within normal ranges with thyroid therapy.

TSH is slightly lower than reference range, which is common with thyroid therapy. The American Association of Clinical Endocrinologists have recommended a change in the TSH range to 0.3 to 3.0 - www.aace.com. Low TSH and hyperthyroidism are associated with symptoms of goiter, eye changes, pretibial myxedema, nervousness, anxiety, heart palpitations or tachycardia, insomnia, tremor, frequent bowel movements, weight loss, excessive sweating, heat intolerance, oligomenorrhea/amenorrhea, increased appetite, tremors, bone loss and/or increased blood pressure. If these symptoms are associated with thyroid therapy, dose reduction should be considered.

Thyroid peroxidase (TPO) antibodies are low indicating that Hashimoto's autoimmune thyroiditis is unlikely.

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