

Hormone Test	4/26/2010	4/5/2011	Current 2/16/2013	Units	Range
Estradiol (saliva)		0.9 Ok	<0.5 L	pg/ml	0.5-1.7 Postmenopausal (optimal 1.3-1.7)
Progesterone (saliva)		22 Ok	17 Ok	pg/ml	12-100 Postmenopausal
Ratio: Pg/E2 (saliva)		24 L	34 L		Optimal: 100-500 when E2 1.3-3.3 pg/ml
Testosterone (saliva)		28 Ok	180 H	pg/ml	16-55 (Age Dependent)
DHEAS (saliva)		4.7 Ok	6.0 Ok	ng/ml	2-23 (Age Dependent)
Cortisol Morning (saliva)		8.5 Ok	7.4 Ok	ng/ml	3.7-9.5
Cortisol Noon (saliva)		1.8 Ok		ng/ml	1.2-3.0
Cortisol Evening (saliva)		0.5 L		ng/ml	0.6-1.9
Cortisol Night (saliva)		0.3 L		ng/ml	0.4-1.0
Free T4 (blood spot)		2.1 Ok		ng/dL	0.7-2.5
Free T3 (blood spot)		3.5 Ok		pg/ml	2.5-6.5
TSH (blood spot)		0.9 Ok		uU/ml	0.5-3.0
TPO (blood spot)*		14 Ok		IU/ml	0-150 (70-150 borderline)
Vitamin D, 25-OH, D2	<4 Ok			ng/ml	<4 if not supplementing (< 10 nmol/L)
Vitamin D, 25-OH, D3	44 Ok			ng/ml	32-100 ng/ml (80-250 nmol/L)
Vitamin D, 25-OH, Total	44 Ok			ng/ml	32-100

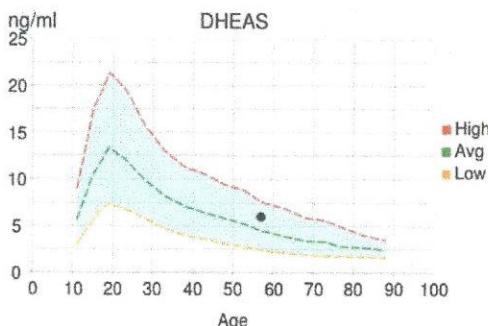
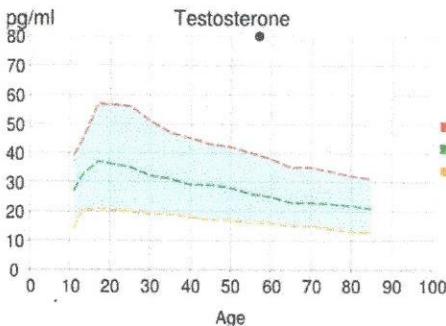
Current Hormone Therapies

70 now

4/26/2010: None

4/5/2011: None

2/16/2013: oral Thyroid Therapy (Pharmaceutical) (daily Last used); oral Vitamin D3 (OTC) (daily Last used); ;



B

Test Name	04/26/2010	04/05/2011	02/16/2013	Current	Units	Range
Estradiol (saliva)		0.9	<0.5	L	<0.5 pg/mL	0.5-1.7 Postmenopausal (optimal 1.3-1.7)
Progesterone (saliva)	22	17	59		pg/mL	12-100 Postmenopausal
Ratio: Pg:E2 (saliva)	24	L	57	L		Optimal: 100-500 when E2 1.3-3.3 pg/mL
Testosterone (saliva)	28	180	H	55	pg/mL	16-65 (Age Dependent)
DHEAS (saliva)	47	6.0		6.5 ng/mL	ng/mL	2-23 (Age Dependent)
Cortisol (saliva)	85	7.4		9.7 H	ng/mL	3.7-9.5 (morning)
Cortisol (saliva)	18			2.3 ng/mL	ng/mL	1.2-3.0 (noon)
Cortisol (saliva)	0.5	L		0.7 ng/mL	ng/mL	0.6-1.0 (evening)
Cortisol (saliva)	0.3	L		0.9 ng/mL	ng/mL	0.4-1.0 (night)
Free T4 (blood spot)	21				ng/dL	0.7-2.5
Free T3 (blood spot)	35				pg/mL	2.5-6.5
TSH (blood spot)	0.9				μU/mL	0.5-3.0
TPO (blood spot)*	14				IU/mL	0-150 (70-150 borderline)
Vitamin D, 25-OH, D2	44				ng/mL	<4 if not supplementing (< 10 nmol/L)
Vitamin D, 25-OH, D3	44				ng/mL	32-100 ng/mL (80-250 nmol/L)
Vitamin D, 25-OH, Total	44				ng/mL	32-100

*For research purposes only.

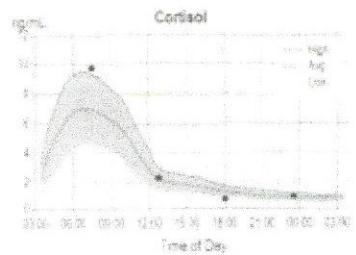
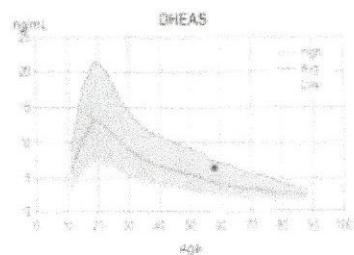
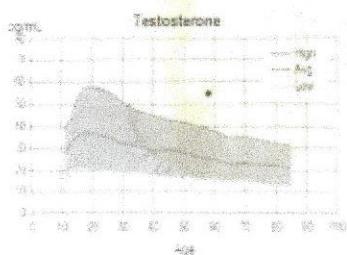
Therapies

01/03/2014: None Indicated

02/16/2013: oral Thyroid Therapy (Pharmaceutical) (daily Last used); oral Vitamin D3 (OTC) (daily Last used)

04/05/2011: None

04/26/2010: None



The above results and comments are for informational purposes only and are not to be construed as medical advice. Please consult your healthcare provider for diagnosis and treatment.

Sant J. Zava, Anna Kapoor
David T. Zava, Ph.D., Anna Kapoor, Ph.D.
(Laboratory Director) (Laboratory Director)

CLIA Lab # MO090660
Complaint #: 1163843309 At 12/20/2014 4:36:19 PM

Lab Comments

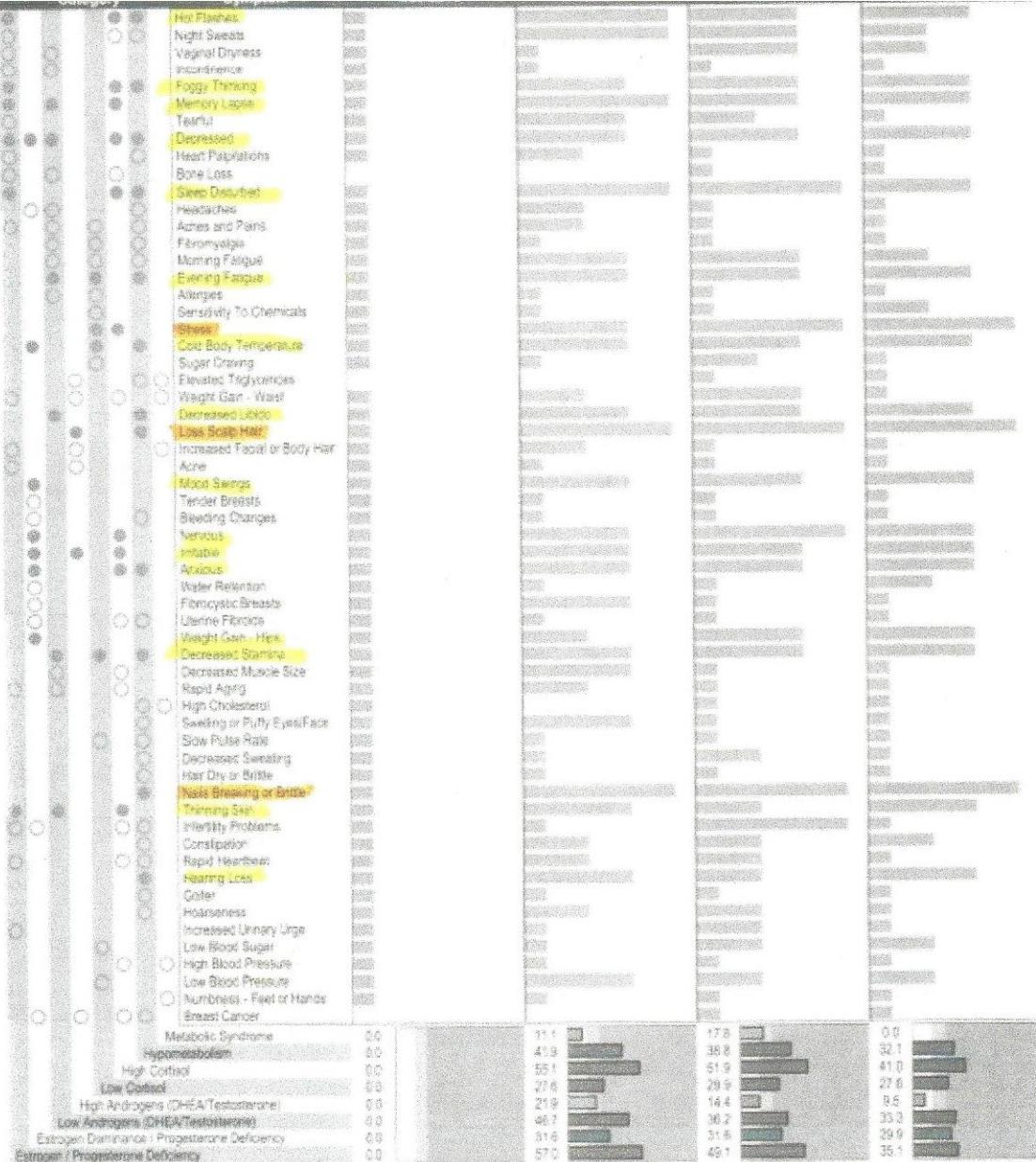
Estradiol is lower than the optimal range for a postmenopausal woman (1.3-1.7 pg/ml), which contributes to symptoms of estrogen deficiency. Stress is reported as moderate/high, which can exacerbate estrogen deficiency symptoms. It would be worthwhile to consider estrogen replacement therapy (assuming no contraindications) in combination with natural progesterone.

Progesterone is within expected range for a postmenopausal woman. It would be worthwhile to consider supplementation with combination of a natural estrogen and progesterone (assuming no contraindications) since estradiol is low and adequate estrogen is necessary to increase cellular progeserone receptors and enhance the balancing effects of progesterone on estrogens.

Testosterone is within high-normal range suggesting excessive production by the ovaries or adrenal glands, testosterone supplementation (none indicated), or exposure to someone using topical testosterone. Chronic high testosterone is usually associated with one or more symptoms of androgen excess (excess facial/body hair, acne, oily skin and hair, weight gain in the waist, increased agitation); however, reported symptoms are more characteristic of LOW testosterone. This may be due to poor tissue response to testosterone or other hormonal imbalances with similar symptom profiles (e.g. low thyroid or low cortisol). Symptoms are also consistent with low thyroid; therefore, it would be worthwhile to check thyroid hormone levels.

DHEAS is within mid-normal expected age range. OHEAS 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.

Morning cortisol is high, but levels drop to normal the remainder of the day. The high morning cortisol seen in these test results may indicate a situational stressor (emotional, physical) or low blood sugar level (hypoglycemia), which often occurs in the morning after overnight fasting. Acute situational stressors (e.g., anxiety over unresolved situations, travel, work-related problems, wedding, holiday season, etc.) can raise cortisol levels, which is a normal response to the stressor. Symptoms commonly associated with high cortisol include sugar craving, fatigue, sleep disturbances, anxiety, and depression. If cortisol remains elevated throughout the day (usually associated with a high night cortisol) 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 eventually result. For additional information about strategies for supporting adrenal health and reducing stress(ors), 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, "Awakening Athena" by Kenna Stephenson, MD.



*Category refers to the most common symptoms experienced when specific hormone types (e.g. estrogens, androgens, cortisol) are out of balance, i.e., either high or low.

The above results and comments are for informational purposes only and are not to be construed as medical advice. Please consult your healthcare provider for diagnosis and treatment.

David J. Zorn
David J. Zorn, Ph.D.
Vice President
Laboratory Director

CLIA Lab # 06020960990
Composed by: 176394309 at 12/12/2014 4:38:19 PM

ZRT Laboratory Reference Ranges

Disclaimer: Supplement type and dosage are for informational purposes only and are not recommendations for treatment. For a complete listing of reference ranges, go to www.zrlab.com/reference-ranges.

Test Name	Women
Estriol (saliva) - pg/mL	0.5-1.7 Postmenopausal (optimal 1.3-1.7); 1.3-3.3 Premenopausal (Luteal); 0.8-12 Estrogen Replacement (optimal 1.3-3.3); 0.5-2.2 (Synthetic HRT, Contraceptive); 0.5-1.7 Premenopausal (follicular)
Progesterone (saliva) - pg/mL	12-100 Postmenopausal; 12-100 Premenopausal (Follicular); 75-270 Premenopausal (Luteal); 30-300 Oral Progesterone (100-300 mg); 200-3000 Topical, Troche, Vaginal Pg (10-30 mg); 10-53 Synthetic Progestins (HRT, Contraceptive)
Ratio: Pg/E2 (saliva)	Optimal: 100-500 when E2 1.3-3.3 pg/mL
Testosterone (saliva) - pg/mL	16-55 (Age Dependent)
DHEAS (saliva) - ng/mL	2-23 (Age Dependent)
Cortisol (saliva) - ng/mL	37-95 (morning); 1.2-3.0 (noon); 0.6-1.9 (evening); 0.4-1.0 (night)
Free T4 (blood spot) - ng/dL	0.7-2.5
Free T3 (blood spot) - pg/mL	2.5-6.5
TSH (blood spot) - µU/mL	0.5-3.0
TPO (blood spot) - IU/mL	0-150 (70-150 borderline)
Vitamin D, 25-OH, D2 - ng/mL	<4 if not supplementing (< 10 nmol/L)
Vitamin D, 25-OH, D3 - ng/mL	32-100 ng/ml (80-250 nmol/L)
Vitamin D, 25-OH, Total - ng/ml	32-100

Findings and Impressions:

Face and Anterior Neck:

1. Mild warming is seen over the outer jaw bilaterally consistent with irritation to the chewing muscles.
2. Mild warming is seen over the neck muscles consistent with irritation to the scalenes.
3. No indication of altered thyroid function.
4. No indication of increased risk for stroke.

Arms and Hands:

1. Normal temperature.
2. No indication of gross circulatory compromise or nerve injury.
3. Mild right posterior forearm warming suggests muscular irritation.

Posterior Neck, Back and Buttock:

1. Mild warming is seen over the posterior neck, upper back, and mid back consistent with muscular irritation.
2. Spinal warming is seen in the mid thoracic region consistent with mechanical compromise and joint inflammation.
3. Warming is seen over the sacroiliac joints with the right worse than the left consistent with local joint inflammation.
4. Warming is seen over the left outer buttock consistent with gluteus minimus posterior muscular irritation.

Abdomen:

1. Normal abdominal temperature.
2. No indication of stress to the abdominal organs, female organs, or intestines.

Legs and Feet