

# TEST REPORT

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# 2022 12 22 374 S

Ordering Provider:  
Carolina Total Wellness










Samples Received  
12/22/2022

Report Date  
01/03/2023

Samples Collected  
Saliva - 12/19/22 07:45  
Saliva - 12/19/22 12:45  
Saliva - 12/19/22 19:10  
Saliva - 12/19/22 22:30

Patient Name: Lindsey A Carver  
Patient Phone Number: 757 880 2206

Gender Female	Last Menses 12/01/2022	Height Unspecified	Waist Unspecified
DOB 3/26/1989 (33 yrs)	Menses Status Pre-Menopausal - Irregular	Weight Unspecified	

TEST NAME	RESULTS   12/19/22	03/28/22	08/17/21	RANGE
<b>Salivary Steroids</b>				
Estradiol	 1.3	1.4	1.6	1.3-3.3 pg/mL Premenopausal (Luteal)
Progesterone	 38 <sup>(1)</sup> L	23 <sup>(1)</sup> L	126 <sup>(2)</sup>	<sup>(1)</sup> 75-270 pg/mL Premenopausal (Luteal) <sup>(2)</sup> 30-300 pg/mL Oral, Troche, SL Progesterone (100-300 mg)
Ratio: Pg/E2	 29 L	16 L	79 L	Optimal: 100-500 when E2 1.3-3.3 pg/mL
Testosterone	 56 H	30	41	16-55 pg/mL (Age Dependent)
DHEAS	 5.1		7.2	2-23 ng/mL (Age Dependent)
Cortisol	 10.1 H		8.9	3.7-9.5 ng/mL (morning)
Cortisol	 1.8		2.4	1.2-3.0 ng/mL (noon)
Cortisol	 0.5 L		0.7	0.6-1.9 ng/mL (evening)
Cortisol	 0.3 L		0.4	0.4-1.0 ng/mL (night)

<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

12/19/2022: None

03/28/2022: None Indicated

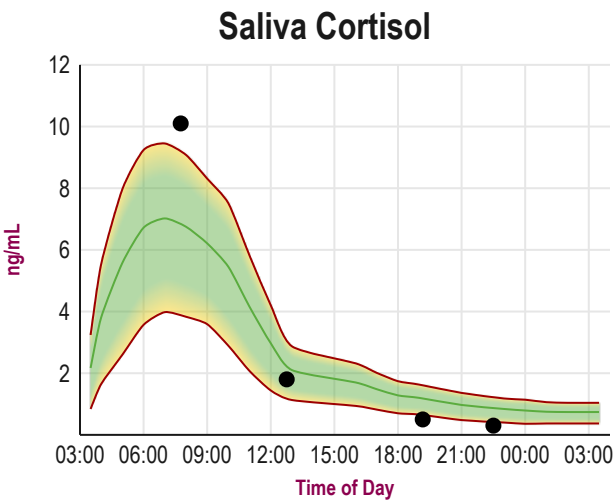
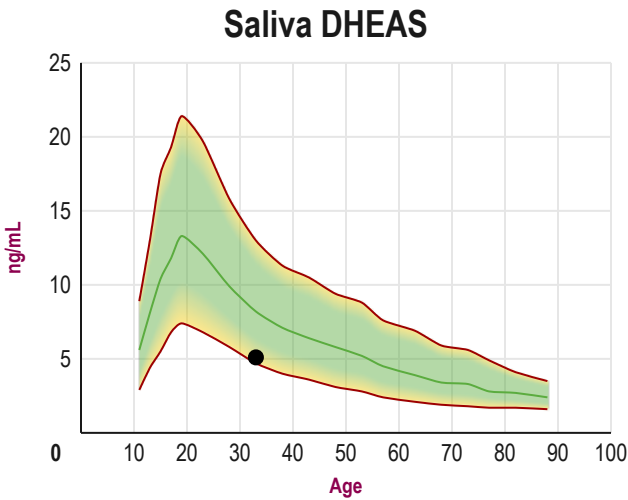
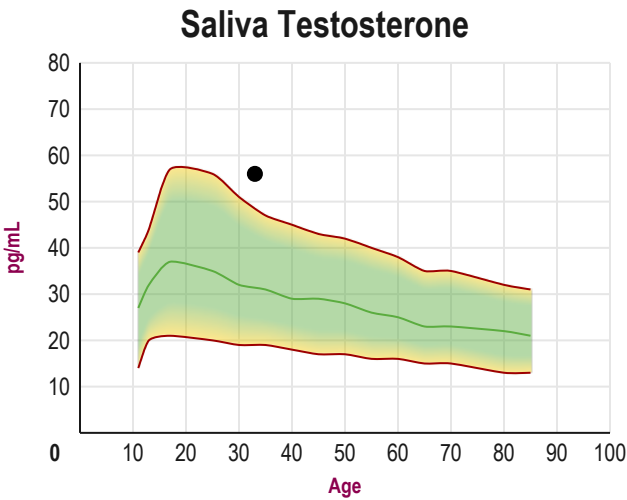
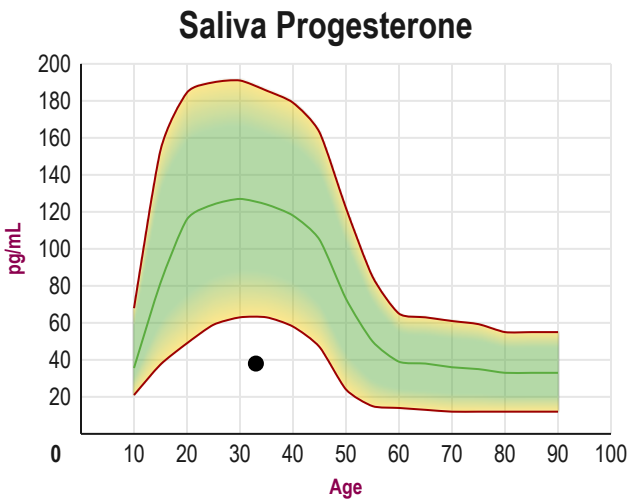
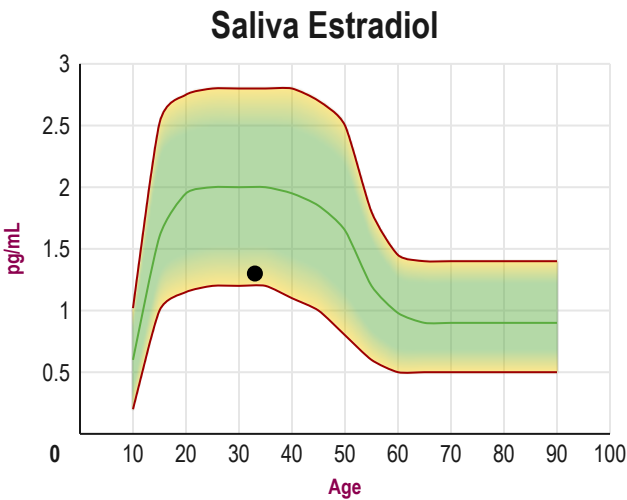
08/17/2021: oral Progesterone (compounded) (1 Days Last Used); topical Testosterone (compounded) (1 Days Last Used)

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



**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.zrtlab.com/reference-ranges](http://www.zrtlab.com/reference-ranges).

TEST NAME	WOMEN
Salivary Steroids	
Estradiol	0.5-1.7 pg/mL Postmenopausal (optimal 1.3-1.7); 1.3-3.3 pg/mL Premenopausal (Luteal); 0.8-12 pg/mL Estrogen Rplcmnt (optimal 1.3-3.3); 0.5-2.2 pg/mL (Synthetic HRT, BC); 0.9-2.5 pg/mL Premenopausal (Follicular); 1.1-4.8 Premeno-Ovulatory (2.0-4.8 optimal)
Progesterone	12-100 pg/mL Postmenopausal; 14-48 pg/mL Premenopausal (Follicular); 75-270 pg/mL Premenopausal (Luteal); 30-300 pg/mL Oral, Troche, SL Progesterone (100-300 mg); 200-3000 pg/mL Topical, Vag Pg (10-30mg); 10-53 pg/mL Synthetic Progestins (HRT, BC); 11-59 pg/ml Premeno-Ovulatory
Ratio: Pg/E2	Optimal: 100-500 when E2 1.3-3.3 pg/mL
Testosterone	16-55 pg/mL (Age Dependent)
DHEAS	2-23 ng/mL (Age Dependent)
Cortisol	3.7-9.5 ng/mL (morning); 1.2-3.0 ng/mL (noon); 0.6-1.9 ng/mL (evening); 0.4-1.0 ng/mL (night)

**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](http://www.zrtlab.com/patient-symptoms).

SYMPTOM CATEGORIES	RESULTS   12/19/22	03/28/22	08/17/21
Estrogen / Progesterone Deficiency	31% <div><div></div></div>	31% <div><div></div></div>	16% <div><div></div></div>
Estrogen Dominance / Progesterone Deficiency	32% <div><div></div></div>	17% <div><div></div></div>	21% <div><div></div></div>
Low Androgens (DHEA/Testosterone)	41% <div><div></div></div>	31% <div><div></div></div>	25% <div><div></div></div>
High Androgens (DHEA/Testosterone)	33% <div><div></div></div>	18% <div><div></div></div>	18% <div><div></div></div>
Low Cortisol	41% <div><div></div></div>	33% <div><div></div></div>	33% <div><div></div></div>
High Cortisol	33% <div><div></div></div>	22% <div><div></div></div>	21% <div><div></div></div>
Hypometabolism	28% <div><div></div></div>	20% <div><div></div></div>	20% <div><div></div></div>
Metabolic Syndrome	64% <div><div></div></div>	31% <div><div></div></div>	40% <div><div></div></div>

SYMPTOM CHECKLIST	1	2	3					
Aches and Pains	<div></div>				<div></div>			<div></div>
Acne	<div></div>				<div></div>			<div></div>
ADD/ADHD	<div></div>				<div></div>			<div></div>
Addictive Behaviors	<div></div>				<div></div>			<div></div>
Allergies	<div></div>				<div></div>			<div></div>
Anxious	<div></div>				<div></div>			<div></div>
Autism Spectrum Disorder	<div></div>				<div></div>			<div></div>
Bleeding Changes	<div></div>				<div></div>			<div></div>
Blood Pressure High	<div></div>				<div></div>			<div></div>
Blood Pressure Low	<div></div>				<div></div>			<div></div>
Blood Sugar Low	<div></div>				<div></div>			<div></div>
Body Temperature Cold	<div></div>				<div></div>			<div></div>
Bone Loss	<div></div>				<div></div>			<div></div>
Breast Cancer	<div></div>				<div></div>			<div></div>
Breasts - Fibrocystic	<div></div>				<div></div>			<div></div>
Breasts - Tender	<div></div>				<div></div>			<div></div>
Chemical Sensitivity	<div></div>				<div></div>			<div></div>
Cholesterol High	<div></div>				<div></div>			<div></div>
Constipation	<div></div>				<div></div>			<div></div>
Depressed	<div></div>				<div></div>			<div></div>
Developmental Delays	<div></div>				<div></div>			<div></div>
Eating Disorders	<div></div>				<div></div>			<div></div>
Fatigue - Evening	<div></div>				<div></div>			<div></div>
Fatigue - Morning	<div></div>				<div></div>			<div></div>
Fibromyalgia	<div></div>				<div></div>			<div></div>
Foggy Thinking	<div></div>				<div></div>			<div></div>
Goiter	<div></div>				<div></div>			<div></div>
Hair - Dry or Brittle	<div></div>				<div></div>			<div></div>
Hair - Increased Facial or Body	<div></div>				<div></div>			<div></div>
Hair - Scalp Loss	<div></div>				<div></div>			<div></div>
Headaches	<div></div>				<div></div>			<div></div>
Hearing Loss	<div></div>				<div></div>			<div></div>
Heart Palpitations	<div></div>				<div></div>			<div></div>
Hoarseness	<div></div>				<div></div>			<div></div>
Hot Flashes	<div></div>				<div></div>			<div></div>
Incontinence	<div></div>				<div></div>			<div></div>
Infertility	<div></div>				<div></div>			<div></div>
Irritable	<div></div>				<div></div>			<div></div>
Libido Decreased	<div></div>				<div></div>			<div></div>
Mania	<div></div>				<div></div>			<div></div>

SYMPTOM CHECKLIST	1	2	3						
Memory Lapse									
Mood Swings									
Muscle Size Decreased									
Nails Breaking or Brittle									
Nervous									
Night Sweats									
Numbness - Feet or Hands									
OCD									
Panic Attacks									
PreMenstrual Dysphoric Disorder									
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

Estradiol is within expected range for a premenopausal woman but symptoms suggest both estrogen dominance and deficiency. This is usually caused by estradiol fluctuating from low to high (common in women with excessive stressors and as they approach menopause) or by a low progesterone or a low ratio of progesterone/estradiol.

Progesterone is low, consistent with anovulatory cycles (no ovulation) and/or a luteal phase deficiency (ovulation with low progesterone production). Women with irregular cycles are commonly anovulatory. Low progesterone may contribute to symptoms of both estrogen excess (dominance) and estrogen deficiency, particularly if estradiol is fluctuating erratically as it does with irregular menstrual cycles. Bio-identical progesterone supplementation often helps stabilize symptoms of estrogen imbalance.

Testosterone is high. High testosterone, irregular menstrual cycles, low progesterone, and symptoms of androgen excess (loss of scalp hair, increased facial/body hair, and/or acne) strongly suggest cystic ovaries (PCOS). This condition is relatively common in women (estimated to range from 10-20% of the population). Cystic ovaries are thought to be caused, in part, by insulin resistance, obesity, excessive consumption of carbohydrates, sedentary lifestyle, smoking, lack of stress management (high cortisol), unbalanced hormone replacement (natural or synthetic), and genetic predisposition. Exercise, stress reduction, weight reduction, dietary modification, and creating a better hormonal balance with bio-identical hormone replacement therapy have been shown to be effective, natural ways of treating insulin resistance/PCOS. For more information, see: [www.ovarian-cysts-pcos.com/index.html](http://www.ovarian-cysts-pcos.com/index.html); [www.pcosupport.org](http://www.pcosupport.org) or "PCOS, the Hidden Epidemic" by Samuel Thatcher, MD.

DHEAS is within mid-normal 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.

Salivary cortisol is high in the morning, normal in the afternoon and then drops to lower levels the remainder of the day, indicating adrenal exhaustion. This is likely caused by adrenal stressors, a cortisol precursor deficiency (pregnenolone and progesterone), and/or nutritional deficiencies (low vitamins C and B5, low protein diet). The most common adrenal stressors include psychological stress (emotional), sleep deprivation, physical insults (surgery, injury, diseases), chemical exposure (environmental pollutants, excessive medications), and pathogenic infections (bacterial, viral, fungal). In a healthy individual the adrenal glands initially respond to stressors by increasing cortisol output. However, if the stressor persists the adrenal glands either continue to meet the demands of the stressor with high cortisol output, or become exhausted, wherein cortisol levels fall below normal, as seen in these test results. Depletion of cortisol by a chronic stressor often leads to symptoms such

as fatigue, allergies (immune dysfunction), chemical sensitivity, cold body temp, and sugar craving. Adrenal support is worthwhile considering, which includes adequate sleep, gentle exercise, naps, meditation, proper diet (adequate protein), natural progesterone, adrenal extracts, herbs, and nutritional supplements (vitamins C and B5). For additional information about strategies for adrenal support 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.