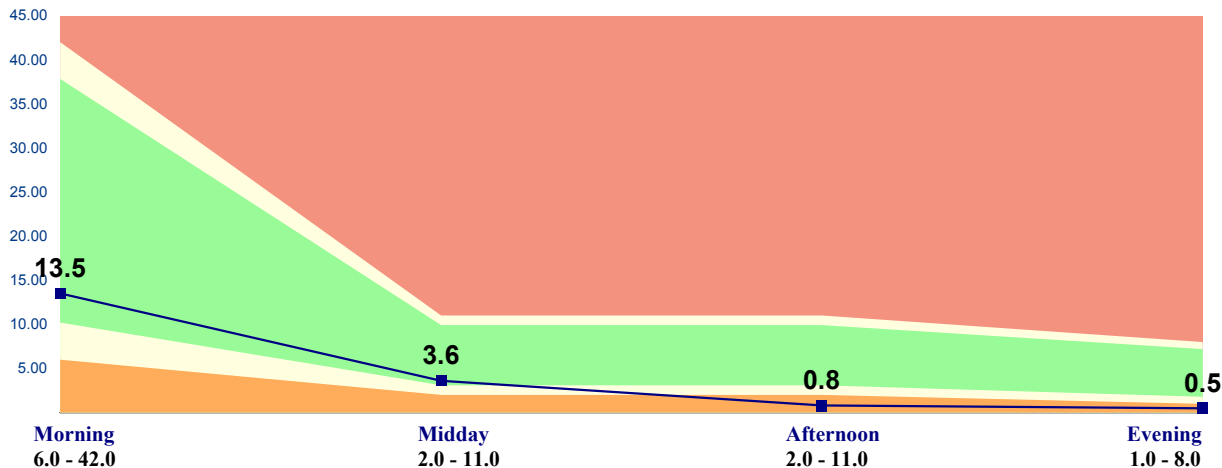




Date of Birth : 01
Sex : F
Collected : 07

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ADRENOCORTEX STRESS PROFILE



Colour Key Ranges :

Above	Borderline	Normal	Below

Cortisol Values	Result	Visual	Range
Cortisol Profile, Morning	13.5		6.0 - 42.0 nmol/L
Cortisol Profile, Midday	3.6		2.0 - 11.0 nmol/L
Cortisol Profile, Afternoon	0.8*L		2.0 - 11.0 nmol/L
Cortisol Profile, Evening	0.5*L		1.0 - 8.0 nmol/L
Cortisol Daily, Total	18.4		11.0 - 76.0 nmol/L
DHEAS Values	Result	Visual	Range
DHEAS Profile Morning	63.0*H		2.5 - 25.0 nmol/L
DHEAS/CORTISOL AM	4.67*H		0.20 - 0.60 RATIO



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Adrenocortex Stress Comments

LOW NORMAL MORNING SALIVA CORTISOL LEVEL:

Saliva morning cortisol level is below mean range and suggestive of adrenal insufficiency. This suggests a degree of adrenal hypofunction, maladaptation/abnormal pacing with abnormal HPA. If all four cortisol readings are also low, suspect adrenal fatigue. Suggest supplementation with DHEA and standard adrenal support.

Investigate melatonin and GABA levels.

LOW MIDDAY CORTISOL LEVEL:

Midday Cortisol level is below mean range and suggestive of adrenal insufficiency. This suggests suboptimal adrenal functioning, and if accompanied by low evening cortisol and low DHEA, suspect adrenal fatigue. Suggest supplementation with DHEA and standard adrenal support.

LOW LATE AFTERNOON CORTISOL LEVEL:

Late afternoon cortisol level is LOW and suggestive of adrenal insufficiency. This suggests suboptimal adrenal functioning, and if accompanied by low evening cortisol and low DHEA, suspect adrenal fatigue. Suggest supplementation with DHEA and standard adrenal support.

Consider further investigation of reactive hypoglycaemia (fasting insulin, glucose, insulin resistance (HOMA score), HbA1c).

LOW EVENING CORTISOL LEVEL:

Saliva evening cortisol levels should be lower than the mean of the range. If all 4 readings in the adrenal stress profile are low, suspect adrenal fatigue, otherwise maladaptation.

ELEVATED DHEAS LEVEL:

Saliva DHEAs level is elevated/supplemented. Review dose if adverse symptoms are noted.

Hyper response, inappropriate ACTH with imbalanced response from adrenals.

SALIVA DHEAS/CORTISOL RATIO - HIGH

An increase in DHEAs/Cortisol ratio, was found in patients suffering from panic disorders.

Suspect: An abnormal physiological response to stress, with shifting of the steroidogenic pathway to DHEA at the expense of cortisol.

Consider the following options:

Lifestyle changes:

Stress reduction: chronic stress can fatigue the adrenals Rest, exercise, prayer, meditation, relaxation exercises

Dietary changes:

Balance blood sugar: Lower calorie, high protein, high complex carbohydrate and high fiber diet

Nutritional supplements: High-grade multivitamin and mineral. Additional Vitamin C, Vitamin B5, Vitamin B6, and zinc, as indicated

Herbal Support*:

"Adaptogenic" herbs: American or Korean ginseng (Panax spp.), Siberian ginseng (Eleutherococcus senticosus), Withania (Withania somnifera)

Miscellaneous herbs:

Licorice (Glycyrrhiza glabra) to prolong the half-life of cortisol, Sarsaparilla (Smilax spp.) is a cortisol precursor

Glandular Support*:

Adrenal, pituitary, others as indicated

Hormone replacement therapy*:

Cortisol, DHEA, pregnenolone, as indicated

*For herbal, glandular & hormone replacement therapy, it is important to preserve or restore circadian rhythm by dosing in morning. May give 1/3 to 1/2 of morning



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dose at noon. Dosing later than noon is not advised.

Consider measuring testosterone and/or estradiol levels and intervene if necessary.

SALIVA DHEAS Ranges:

Premenopausal, no oral contraceptives:	2.5 - 25	nmol/L
Premenopausal, with oral contraceptives:	2.0 - 8.0	nmol/L
Postmenopausal:	< 6.5	nmol/L



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ENDOCRINOLOGY SALIVA

SALIVA	Result	Range	
Progesterone (P4)	361.0	318.0 - 1590.pmol/L	
Testosterone.	335.0 *H	25.0 - 190.0 pmol/L	
Salivary Estrogens			
Estradiol (E2)	57.0 *H	2.0 - 18.0 pmol/L	
Estrone (E1)	58.0 *H	9.6 - 20.0 pg/mL	
Estriol (E3)	39.0 *H	0.0 - 29.0 pg/mL	
E3/[E2+E1]	0.35 *L	> 1.00 RATIO	
P4/E2 Ratio (Saliva)	6.3	4.0 - 108.0 RATIO	



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Saliva Hormone Comments

SALIVARY HORMONE REFERENCE RANGES: (NOT ON HRT - BASELINE)

	E2	E1	E3	Progesterone	DHEAS
FEMALE					
Follicular	<18	9.6-20	15-29	<318	
Mid-Cycle	11-29	9.6-20	15-29	-	
Luteal	<18	9.6-20	15-29	318-1590	
Post Men.	<6	9.6-20	1-41	<159	<6.5
Premenopausal, no oral contraceptives					2.5-25.0
Premenopausal, with oral contraceptives					2.0-8.0
MALE					
	<6	9.6-20	16-25	<159	5.0-30.0

TARGET REFERENCE RANGES: (ON HRT - 24hr post last dose)

	E2	E1	E3	Progesterone	Testosterone Age Dpndt
Oral	7-73	-	69-139	318-1590	
Patch	4-18	-	-	-	
Cream/Gel	37-184	-	1040-1734	3180-31797	F: 277-867 M: 347-1734

SALIVA ESTRONE (E1) is produced primarily from androstenedione originating from the gonads or the adrenal cortex. In premenopausal women, more than 50% of the E1 is secreted by the ovaries. In prepubertal children, men and non-supplemented postmenopausal women, the major portion of E1 is derived from peripheral tissue conversion of androstenedione. Interconversion of E1 and E2 also occurs in peripheral tissue. Bioassay data indicate that the estrogenic action is much less than E2. E1 is a primary estrogenic component of several pharmaceutical preparations, including those containing conjugated and esterified estrogens. In premenopausal women E1 levels generally parallel those of E2. After menopause E1 levels increase, possibly due to increased conversion of androstenedione to E1.

ELEVATED ESTRONE (E1) LEVEL:

Saliva E1 level is elevated and suggestive of current supplementation. Review dosages and if on Triest consider switching to Biest. Elevated E1 levels should be interpreted relative to the Estrogen quotient. If this is <1 then suggest using Indole-3-carbinol/DIM and check serum TSH level.

SALIVA E2 levels for a non-menopausal female should be assessed relative to the day of cycle that the specimen was collected.

ELEVATED E2 LEVEL:

Saliva E2 levels are elevated and suggestive of current supplementation.

ELEVATED ESTRIOLE (E3) LEVEL:

Saliva E3 level is elevated for a non-menopausal female. If so, suggest checking estrogen metabolites and consider using indole-3-carbinol/DIM to lower E3 levels. Check serum TSH level. Improving BMI can also help lower estrogen metabolites/E3 levels.

The Estrogen Quotient is low and suggestive of an abnormal estrogen metabolism.

Suggest checking morning void urine for E1 metabolites 16OH, 4OH and 2OH metabolites



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and their ratios. Also check serum TSH and LFT. Use of Indole-3-Carbinol/DIM has been shown to improve estrogen metabolism to correct ratios.

SALIVA The Progesterone level is within range and suggestive of luteal phase. Aim for a ratio of E2:Prog of 1:200 (200 parts Progesterone to 1 part Estradiol) during this phase of cycle.

SALIVA FREE TESTOSTERONE level is suggestive of current supplementation. If not supplemented, then suggestive of Polycystic Ovarian Syndrome, insulin resistance or fibroids.