#### -.SHIREE WALKER



P: 1300 688 522 E: info@nutripath.com.au

A: PO Box 442 Ashburton VIC 3142

Date of Birth: 08-Oct-1972

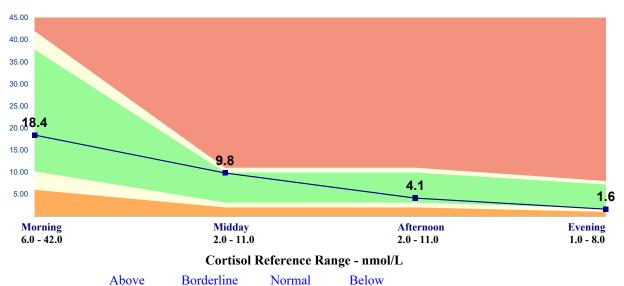
Sex : F

Collected: 13/Jun/2021 Received: 18-Jun-2021 25/46 MOONDINE DRIVE WEMBLEY WA 6014

Lab id: **3747798** UR#: 6091163

ADVANCED FUNCTIONAL MEDICINE 4 ANTONY ST PALMYRA WA 6157

# **ADRENOCORTEX STRESS PROFILE**



Above Colour Key Ranges:



Below

Cortisol Values	<u>Result</u>				<u>Range</u>	
Cortisor values	Kesuit				<u>italige</u>	
Cortisol Profile, Morning	18.4	Low	Reference	High	6.0 - 42.0	nmol/L
		Low	Reference	підіі		
Cortisol Profile, Midday	9.8			•	2.0 - 11.0	nmol/L
		Low	Reference	High		
Cortisol Profile, Afternoon	4.1		<b>•</b>		2.0 - 11.0	nmol/L
		Low	Reference	High		
Cortisol Profile, Evening	1.6		<b>*</b>		1.0 - 8.0	nmol/L
		Low	Reference	High		
Cortisol Daily, Total	33.9	Low	Reference	High	11.0 - 76.0	nmol/L
DUEAC Valara	Dogult	Low	Reference	High	Dange	
DHEAS Values	<u>Result</u>				<u>Range</u>	
DHEAS Profile Morning	9.0		<b>A</b>	W. I	2.5 - 25.0	nmol/L
		Low	Reference	High		
DHEAS/CORTISOL AM	0.49		P. S	W. I	0.20 - 0.60	RATIO
		Low	Reference	High		

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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,

maladaption/abnormal pacing with abnormal HPAA. If all four cortisol readings are also low, suspect adrenal fatigue. Suggest supplementation with DHEA and standard adrenal support.

Investigate melatonin and GABA levels.

#### MIDDAY CORTISOL LEVEL IS WITHIN RANGE:

Midday Cortisol level is adequate and within range.

#### LOW LATE AFTERNOON CORTISOL LEVEL:

Late afternoon 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 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 maladaption.

## LOW DHEAS LEVEL:

Saliva DHEAs level is below the mean range and suggestive of the need for supplementation with 15mg of DHEA.

Maladaption if consistently elevated cortisol. Adrenal fatigue if morning and evening cortisol only elevated, or if all markers low.

# 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

#### SALIVA DHEAS/CORTISOL RATIO - NORMAL

The ratio of DHEAs to cortisol is normal. This ratio indicates a relative balance of the adrenal output of androgens and cortisol. Both of the hormones are released in response to ACTH from the pituitary and a normal ratio indicates a balanced function of the hypothalamic-pituitary-adrenal axis.

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# **ENDOCRINOLOGY SALIVA**

SALIVA Progesterone (P4) Testosterone.	Result Range  146.2 *L 320.0 - 1998.pmol/L  98.1 25.0 - 190.0 pmol/L
Salivary Estrogens	
Estradiol (E2)	<b>10.9</b> 2.0 - 18.0 pmol/L
Estrone (E1)	<b>28.2</b> 9.5 - 40.0 pmol/L
Estriol (E3)	<b>25.8</b> 7.7 - 49.0 pmol/L
E3/[E2+E1]	0.66 *L > 1.00 RATIO
P4/E2 Ratio (Saliva)	<b>13.4</b> 4.0 - 108.0 RATIO

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#### **Saliva Hormone Comments**

TABLE 1: SALIVARY HORMONE REFERENCE RANGES: (NOT ON HRT - BASELINE)

	 I	E2	 I	 E1	 I	E3	Progesterone	DHEAS
FEMALE   Pre/menarche   Follicular   Mid-Cycle	   ea:   	 l <18 11-29	     	9.5-40 9.5-40	     	7.7-49	44-195   <320	       
Luteal   Post Men.   Premenopaus:		<18 <6 , no or	i ral	9.5-40 9.5-40 contrac	-	7.7-49   9.0-62   ives	320-1998   <213   	<6.5   2.5-25.0   2.0-8.0
	   	<6 	I	7.7- <b>4</b> 0	   	6.6-38	<213	   5.0-30.0 

TABLE 2: TARGET REFERENCE RANGES: (ON HRT - 24 to 48 hr post last dose)

   	   	E2	   	E1	   	E3	   	Progesterone	   	Testosterone Age Dpndt	   
   Oral	1	7-73	ı	_	1	69-139	ı	320-1998	ı		i
Patch	-	4-18	1	-	- 1	-	1	-	1		- 1
Cream/Gel	I	37-184	I	-	I	1040-1734	I	3180-15000	•	: 277-867 : 347-1734	l I

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.

SALIVA E1 is within range.

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

SALIVA E2 level is adequate and within range.

Saliva E3 level is within range and adequate.

The Estrogen Quotient is low and suggestive of an abnormal estrogen metabolism. Suggest checking morning void urine for E1 metabolites 160H, 40H and 20H metabolites 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, IF the specimen was collected through the follicular phase; otherwise it is low. Aim for a ratio of E2:Prog of 1:50 - 1:80 (50 to 80 parts Progesterone to 1 part estradiol) during this phase (Luteal) of the cycle.

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If confirmed that the specimen was collected during the Luteal phase, then the level is relatively low, suggest 200 mg Oral Progesterone supplementation at nights or 2% transdermal cream 1g daily.

SALIVA FREE TESTOSTERONE level is within range and adequate.

Tests ordered: SADREN,5Horm FINAL REPORT on 23 Jun 2021