














3836129

## ENDOCRINOLOGY SALIVA

SALIVA	Result	Range	Units	
<b>Cortisol Morning</b>	<b>23.80</b>	12.00 - 48.00	nmol/L	
<b>Female Hormone Profile-Extensive</b>				
<b>Progesterone (P4)</b>	<b>95.7 *L</b>	276.0 - 1725.0	pmol/L	
<b>DHEAS.</b>	<b>7.8</b>	2.5 - 27.0	nmol/L	
<b>Androstenedione...</b>	<b>0.82</b>	0.70 - 5.60	nmol/L	
<b>Testosterone.</b>	<b>68.0</b>	60.0 - 191.0	pmol/L	
<b>Estradiol (E2)</b>	<b>3.7</b>	3.7 - 18.0	pmol/L	
<b>Estrone (E1)</b>	<b>9.7</b>	9.5 - 71.0	pmol/L	
<b>Estriol (E3)</b>	<b>16.0</b>	7.7 - 49.0	pmol/L	
<b>E3/[E2+E1]</b>	<b>1.19</b>	> 1.00	RATIO	
<b>P4/E2 Ratio (Saliva)</b>	<b>25.9</b>	4.0 - 108.0	RATIO	
<b>Androstenedione/E1 Ratio</b>	<b>0.08</b>	0.04 - 1.10	RATIO	

(\*) Result outside normal reference range

(L) Result is below lower limit of reference range

-KIRSTY LAKSTINS-ADAMS  
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28 GEOGRAPHE WAY  
THORNIE WA 6108

**SRUTI PANDA**  
**17-Aug-1994**

**Female**

85 GOODWOOD WAY  
CANNING VALE WA 6155

LAB ID : 3836129  
UR NO. : 6150060  
Collection Date : 18-Aug-2022  
Received Date:24-Aug-2022



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### Saliva Hormone Comments

\*\* PLEASE NOTE NEW REFERENCE RANGES AS OF 20.08.2021 \*\*

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

FEMALE	Progesterone	DHEAS	E2	E1	E3
Pre/menarcheal	90-390		3.1-13	9.5-71	7.7-49
Follicular	90-480		3.1-17	9.5-71	7.7-49
Mid-Cycle	85-590		5.0-22	9.5-71	7.7-49
Luteal	276-1725		3.7-18	9.5-71	7.7-49
Post Menop.	80-820	1.8-18.5	3.7-16	9.0-65	9.0-62
Premenopausal, No OC's		2.5-27.0			
Premenopausal, with OC's		2.0-8.0			
MALE	<230	5.0-32.0	2.7-11	7.7-50	6.6-38

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

	Progesterone	Testosterone	E2	E1	E3
Oral	320-1998		7-73		69-139
Patch	-		4-18	-	-
Cream/Gel	3180-15000	F: 277-867 M: 347-1734	37-184	-	1040-1734

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.

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.

#### LOW NORMAL E2 LEVEL:

Saliva E2 level is low normal and suggestive of the need for supplementation with 0.5mg of E2 or 1mg Biest.

Saliva E3 level is within range and adequate.

The Estrogen Quotient is within range. Suggestive of a normal estrogen metabolism.

(\*) Result outside normal reference range

(L) Result is below lower limit of reference range

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**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.

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.

**LOW/LOW NORMAL MORNING SALIVA CORTISOL LEVEL:**

Saliva cortisol level is below the mean range and suggests possible adrenal insufficiency. This also suggests a degree of adrenal hypofunction, maladaptation/abnormal pacing with abnormal HPAA. If all four cortisol readings are also low, suspect adrenal fatigue. Suggest supplementation with DHEA and standard adrenal support. In this instance if the Cortisol level does not improve, suggest using Cortisol Acetate/Hydrocortisone supplementation for short interval. Cortisone acetate has a half life of only 4-6 hours. Suggest doses of 20mg in the AM, 10mg midday and 10mg afternoon for a period of up to 3 months and then review levels.

**LOW NORMAL DHEAS LEVEL:**

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

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

**ANDROSTENEDIONE COMMENT:**

Androstenedione is secreted by the adrenal cortex, testis and ovary and is a synthesised precursor of testosterone and oestradiol. It is a weak androgen, with anabolic activity about 10-20 % that of testosterone.

**LOW TESTOSTERONE LEVEL:**

Saliva Free testosterone level is low and suggestive of the need for supplementation with 1% transdermal testosterone.