



NUTRITIONAL LAB
SERVICES

PO BOX 4233
BURWOOD EAST VIC

Lab id : **12345678**

Test Multi 7

Date of Birth : December 26, 1972

Sex : F

Collected : October 27, 2008

www.nlabs.com.au

Ph: (03) 9803 5335 Fax: (03) 9888 5811

ENDOCRINOLOGY SALIVA

SALIVA

	Result	Range		
Salivary Estrogens				
Estrone (E1)	5.5 *l	9.6 - 20.0	pmol/L	
Estradiol (E2)	19.8		pmol/L	
Estriol (E3)	23.2	15.0 - 29.0	pmol/L	
E1 % total Estrogens	11.3		%	
E2 % total Estrogens	40.8		%	
E3 % total Estrogens	47.8		%	
E3/[E2+E1]	0.92 *l	> 1.00	RATIO	
Progesterone (P4)	192.1		pmol/L	
P4/E2 Ratio (Saliva)	9.7		RATIO	
Testosterone.	224.2 *h	25.0 - 190.0	pmol/L	
Cortisol Morning	70.90 *h	6.00 - 42.00	nmol/L	
DHEAS.	15.4	2.5 - 25.0	nmol/L	

(*) Outside reference range.

(h) Above reference range.

(l) Below reference range.



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 E1 (Estrone) 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 & 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 level is below reference range. E1 result should be interpreted relative to the total estrogens. A low E1 is preferable.

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

SALIVA E2 levels for a non-menopausal female should be assessed relative to the day of cycle that the specimen was collected. The E2 level is suggestive of a midcycle level or suggestive of supplementation or oestrogen dominance.

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 16OH, 4OH and 2OH 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 and suggestive of follicular phase. Aim

(*) Outside reference range.

(h) Above reference range.

(l) Below reference range.



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for a ratio of E2:Prog of 1:50 - 1:80 during this phase of the cycle. If it was collected during the luteal phase the level is relatively low, suggest 200 mg Oral Progesterone supplementation at nights or 2% transdermal cream 1g daily.

SALIVA - AM Cortisol level is elevated. Is this due to supplementation, adrenal stress, inflammation, medication or fasting?

Morning Cortisol is a good indicator of peak adrenal gland function, since it represents peak cyclic activity. High Cortisol reflects HPAA imbalance and morning hypoglycaemia or stress.

SALIVA DHEAs level is adequate and within range.

SALIVA Free testosterone level is at the upper end of normal range and suggestive of current supplementation with androgen precursors such as testosterone, DHEA or Pregnenolone. If not supplemented then suggestive of Polycystic Ovarian Syndrome, Insulin Resistance, fibroids or endometriosis.

NLS Comment

If indicated, suggest seeking advise from a qualified health care provider.