# **TEST PATIENT**

# **TEST PHYSICIAN**

DR JOHN DOE



GUa d'Y HYgh BUa Y Sex::

111 CLINIC STF 99H DUNY Collected: 00-00-0000 7@B = 7 GI 6I F 6 J = 7 ' \$\$\$

111 H9GH ROAD TEST SUBURB **@AB =8: 00000000** UR#:0000000

P: 1300 688 522

E: info@nutripath.com.au A: PO Box 442 Ashburton VIC 3142

ENDOCRINOLOGY SALIVA										
SALIVA	Result	Range	Units							
Female Hormone Profile-Extensive										
Progesterone (P4)	888.0		pmol/L							
DHEAS.	21.1	2.5 - 25.0	nmol/L							
Androstenedione	8.0	0.7 - 10.6	nmol/L							
Testosterone.	261.0 *H	25.0 - 190.0	pmol/L							
Estradiol (E2)	32.0		pmol/L							
Estrone (E1)	26.0 *H	9.6 - 20.0	pg/mL							
Estriol (E3)	49.0 *H	0.0 - 29.0	pg/mL							
E3/[E2+E1]	0.84 *L	> 1.00	RATIO							
P4/E2 Ratio (Saliva)	27.8	4.0 - 108.0	RATIO							
Androstenedione/E1 Ratio	0.31	0.04 - 1.10	RATIO							

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#### **Saliva Hormone Comments**

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

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

TARGET	REFERENCE	RANGES:	(ON HRT	- 24hr	post	last	dose)	
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	   	E2	   	E1	   	E3	1	Progesterone	   	Testosterone Age Dpndt	I
Oral   Patch   Cream/Gel	i	7-73 4-18 37-184	i	- - -	 	-	i	318-1590 - 3180-31797		: 277-867 : 347-1734	1

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 is elevated above reference range. This level is suggestive of supplementation or abnormal estrogen metabolism. Assess the Estrogen quotient (E3/[E2+E1]). If this is <1 then suggest the use of indole-3-carbinol and check serum TSH levels. Also suggest checking morning void urine for 160H, 40H and 20H E1

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 ESTRIOL (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.

(\*) Result outside normal reference range

(H) Result is above upper limit of reference rang (L) Result is below lower limit of reference range

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DUM Collected: 00-00-0000

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### ELEVATED ESTRIOL (E3) LEVEL:

Saliva E3 levels are elevated and suggestive of current supplementation, estrogen metabolism or xenoestrogens.

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 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 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.

Tests ordered: 1006