

## ComprehensivePLUS Hormone Profile w/ Melatonin

<b>Doctor ID</b> 6055		<b>Patient Name</b> Jane Doe HOLD		
<b>Age</b> 46	<b>Sex</b> F	<b>Date of Birth</b> 10/16/1963	<b>Accession #</b> 1500	<b>Test Code</b> 4090
<b>Date Collected</b> 6/15/2012	<b>Date Received</b> 6/17/2012	<b>Date Reported</b> 6/18/2012	<b>Tech</b> XX	
<b>Comments</b> Sample Report		External ID: A12365		

**Doctor Name and Address:**

Sample Reports

Fax:

Phone:

		Amount Excreted in 24hrs	Adult Reference Range		
<b>CREATININE</b>		0.8 gm/24hr	0.5-2.0 gm/24hr		
<b>TOTAL VOLUME</b>		2100 mL			
<b>STEROID</b>	Amount Excreted in µg/24hr	Phase	Day	Female µg/24hr	
<b>ESTRONE</b>	26.1	Luteal	17-26	3.3 - 44.6 *	
		Follicular	27-11	2.0 - 39	
		Mid-Cycle	12-16	11.0 - 46	
		Post Menopausal		1.0 - 7.0	
<b>ESTRADIOL</b>	5.3	Luteal	17-26	1.4 - 12.2 *	
		Follicular	27-11	1.0 - 23	
		Mid-Cycle	12-16	4.0 - 45	
		Post Menopausal		0 - 4	
<b>ESTRIOL</b>	8.7	Luteal	17-26	6.1 - 32.4 *	
		Follicular	27-11	3.0 - 48	
		Mid-Cycle	12-16	20 - 130	
		Post Menopausal		0 - 30	
<b>Total Estrogens</b>		40.1	Luteal	17-26	10.8 - 89.2 *
			Follicular	27-11	7.0 - 110
			Mid-Cycle	12-16	38 - 221
			Post Menopausal		0 - 41
<b>Estrogen Quotient</b>		0.3	Estriol / (estrone + estradiol)		>1.0
<b>2-OH ESTRONE</b>	< 0.25	<b>LOW</b>	Luteal	17-26	3.8 - 38.1 *
			Post Menopausal		0.2 - 5.4 *
<b>16α-OH ESTRONE</b>	Below Detection Limit		Luteal	17-26	2.1 - 7.9 *
			Post Menopausal		0.15 - 3.5 *
<b>2 / 16α Ratio</b>		Not Calculated	Luteal	17-26	1.8 - 5.5 *
			Post Menopausal		0.6 - 5.0 *
<b>4-OH ESTRONE</b>	< 0.25		Luteal	17-26	0.8 - 5.9
			Post Menopausal		0.05 - 1.1
<b>2-METHOXYESTRONE</b>	< 0.25	<b>LOW</b>	Luteal	17-26	2.2 - 14.4 *
			Post Menopausal		0.3 - 4.1
<b>2-METHOXYESTRADIOL</b>	< 0.1		Luteal	17-26	0.1 - 2.2 *
			Post Menopausal		0.03 - 0.54

# ComprehensivePLUS Hormone Profile

Patient Name: Jane Doe HOLD

Accession #: 1500 Test ID 414502 Test Code: 4090

Adult Reference Range

Female

µg/24hr

STEROID	Amount Excreted in µg/24hr		Adult Reference Range Female µg/24hr
PREGNANEDIOL (progesterone metabolite)	688	Luteal Follicular Post Menopausal	1450 - 6140 * 0 - 2500 200 - 1000
DHEA	216		100 - 2000
TESTOSTERONE	8.7		5.0 - 35.0
5α-ANDROSTANEDIOL	105.0	HIGH	3.0 - 35.0
5β-ANDROSTANEDIOL	157.5		13.0 - 180.0
ANDROSTERONE	1804		500 - 3200
ETIOCHOLANOLONE	1740		500 - 5000
PREGNANETRIOL	658		100 -1500
CORTISONE (E)	108		31-209
CORTISOL (F)	58		30-170
TETRAHYDROCORTISONE (THE)	2022		1700-4200
ALLO-TETRAHYDROCORTISOL (5α-THF)	601		400-2100
TETRAHYDROCORTISOL (THF)	812	LOW	900-2600
11β-HYDROXYANDROSTERONE	368	LOW	398-1471
11β-HYDROXYETIOCHOLANOLONE	420		153-827
ALDOSTERONE	15.0		Normal Diet: 6.0-25.0 Low Salt: 17.0-44.0 High Salt: 0.0-6.0
ALLO-TETRAHYDROCORTICOSTERONE (5α-THB)	315		130-600
TETRAHYDROCORTICOSTERONE (THB)	120		30-240
11-DEHYDROTETRAHYDROCORTICOSTERONE (THA)	37	LOW	62-293

\* Reference range revised based on recent reference range study (September 28, 2006)

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Urinary Melatonin	Amount Excreted		Adult Reference Range
Melatonin	38.6		9.1 - 57.3 ng/24hr
6-Sulfatoxymelatonin	6.7	Low	8.3 - 39.7 µg/24hr

Urinary Thyroid	Amount Excreted in ng/24hr		Adult Reference Range ng/24hr
Free T3	462	Low	470 - 1750
Free T4	612		430 - 3200

Urinary Mineral	Amount Excreted in mmol/24h		Adult Reference Range mmol/24hr
Sodium	101		40 - 220
Potassium	48		25 - 150
Sodium/Potassium Ratio	2.1		1.2 - 4.8

*Patient Name:* Jane Doe HOLD

*Accession #:* 1500     *Test ID* 414502   *Test Code:* 4090

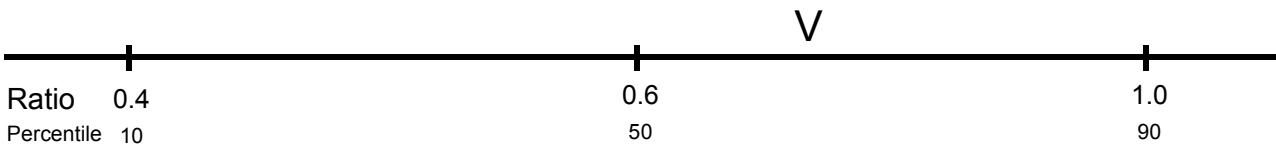
## ENZYME ACTIVITY PHENOTYPE ASSESSMENT

### 5- $\alpha$ -REDUCTASE

**Androsterone/Etiocholanolone Ratio: 1.04**



**Allo-tetrahydrocortisol/tetrahydrocortisol Ratio: 0.74**



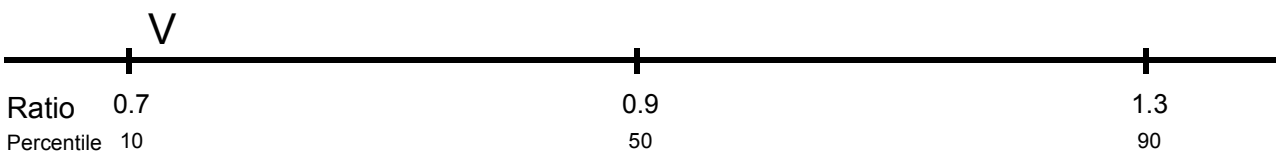
Elevated 5- $\alpha$ -reductase activity is associated with polycystic ovary syndrome and hirsutism in women, benign prostate hypertrophy and premature baldness in men, and obesity and insulin resistance in both genders. Low 5- $\alpha$ -reductase activity may result in reduced conversion of testosterone to DHT and undervirilization in males.

### 11- $\beta$ -hydroxysteroid dehydrogenase I &II

**Cortisol/Cortisone Ratio: 0.54**



**Tetrahydrocortisol+allo-tetrahydrocortisol/Tetrahydrocortisone Ratio: 0.70**



Low ratios are associated with obesity and insulin resistance

Elevated ratios are associated with low-renin hypertension, high dose licorice, and cortisol administration.