MALE :24-Hr Comp Urine Profile + Metabolites

Patient Information	Clinician/Order Information	Sample Information
2023 Test Male 1	**Phyl Test Practitioner**	**Accession# T-0924-0000027**
	Test Facility No Shipping	Collected: 9/9/2024
DOB: 1/1/1970 **Age: 54**	8773265969	Received: 9/13/2024
Gender: Male	Order date: 9/13/2024	Reported: 9/20/2024 10:05:05 AM
Phone: +1 877-316-8686		Collection time: 1st 10:10 AM, 2nd 2:10 PM, 3rd 6:11 PM, 4th 10:11 PM, 5th 6:11 AM
Patient ID: faeac400		

Results Dashboard

Analyte	Observation	Result	Reference Range
Progesterone Markers			
Alpha-Pregnanediol	High	110.2	14.0 - 97.4
Beta-Pregnanediol	High	921.7	90.3 - 534.4
Estrogen Markers			
Total Estrogen Load	High	52.2	13.3 - 47.6
Estrone (E1)		4.1	0.9 - 4.8
Estradiol (E2)	High	2.3	0.5 - 2.0
Estriol (E3)		3.9	0.8 - 4.9
2-Hydroxyestrone (2-OHE1)	High	9.6	0.8 - 3.8
16a-Hydroxyestrone (16a-OHE1)	Below Detection Limit	-	<=0.8
4-Hydroxyestrone (4-OHE1)	High	1.0	0.1 - 0.7
Methylation Ratio	Low	17.6	>=75.9
Androgen Markers			
Testosterone		23.9	4.8 - 44.3
Dihydrotestosterone (5a-DHT)	High	7.0	1.1 - 5.8
Androsterone		271.9	134.4 - 559.5
Etiocholanolone	High	939	80.7 - 491.8
Testosterone/Metabolite Ratio		0.9	0.5 - 2.2
5α-Reductase Activity (5aR)	Low	0.2	0.4 - 2.3
Glucocorticoid Markers			

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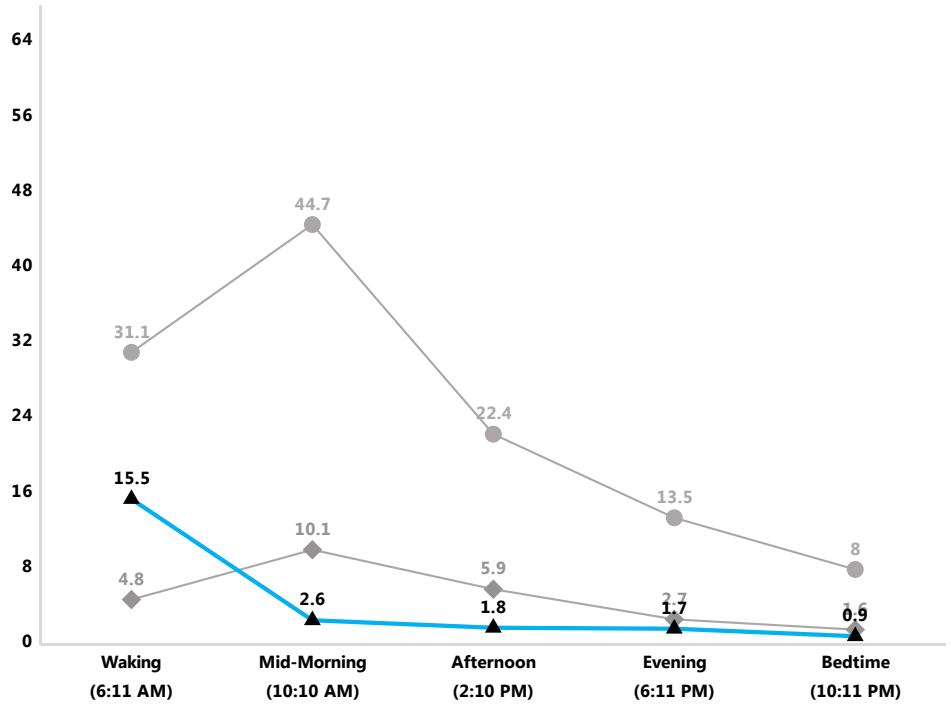
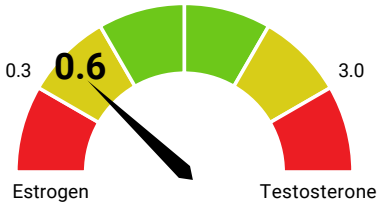
2023 Test Male 1 **Accession# T-0924-0000027**

Analyte	Observation	Result	Reference Range
DHEA-S	Low	24.2	25.5 - 595.7
Cortisol		48.9	19.1 - 57.7
Cortisol Metabolites		1500.9	576.0 - 1579.8
Cortisol: Metabolite Ratio		1.6	1.0 - 3.1
Anabolic/Catabolic Ratio		1.1	0.6 - 1.9

CORTISOL



Testosterone/Estrogen Ratio



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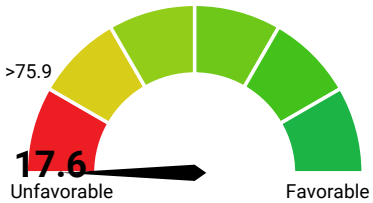
Estrogen Markers

	Units	Observation	Target Ranges
Total Estrogen Load	ng/mg CR	High	13.3 – 47.6 – 52.2
Estrone (E1)	ng/mg CR		0.9 – 4.8 – 4.1
Estradiol (E2)	ng/mg CR	High	0.5 – 2.0 – 2.3
Estriol (E3)	ng/mg CR		0.8 – 4.9 – 3.9
2-Hydroxyestrone (2-OHE1)	ng/mg CR	High	0.8 – 3.8 – 9.6
16a-Hydroxyestrone (16a-OHE1)	ng/mg CR	Below Detection Limit	< 0.8
4-Hydroxyestrone (4-OHE1)	ng/mg CR	High	0.1 – 0.7 – 1.0
2-Methoxyestrone (2-oMeE1)	ng/mg CR		1.5 – 13.6 – 1.7

Methylation Ratio



The methylation ratio is low indicating methylation support is needed. When 2-OHE1 is very low (under 0.9), this ratio has limited interpretive value and can be ignored. Low methylation can be caused by low levels of donor methyl groups or genetic mutations in the COMT, MTHFR and other methylation markers. Phase II support, including methyl-donor supplements and dietary considerations (paleo-like), can increase methylation. If the patient is taking methyl donor supplements, make certain B-vitamins are included, when increasing methylation, to help eliminate excess methyl groups and prevent methyl trapping (most often seen in patients with compromised COMT activity).

Androgen Markers

	Units	Observation	Target Ranges
Testosterone	ng/mg CR		4.8 – 44.3 – 23.9

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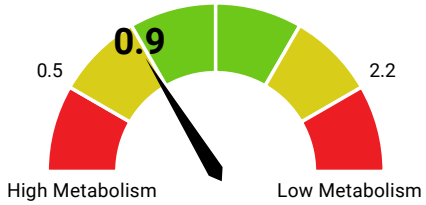
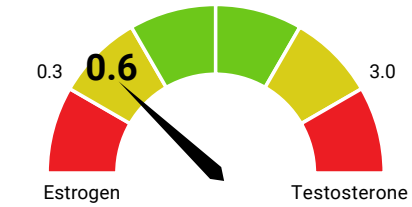
Dihydrotestosterone (5a-DHT)	ng/mg CR	High	1.1 – 5.8 – 7.0
Testosterone Metabolites	ng/mg CR		30.0 – 103.1 – 142.2
DHEA-S	ng/mg CR	Low	25.5 – 24.2 – 595.7
Etiocholanolone	ng/mg CR	High	80.7 – 939 – 491.8
Androsterone	ng/mg CR		134.4 – 271.9 – 559.5

Testosterone/Metabolite Ratio



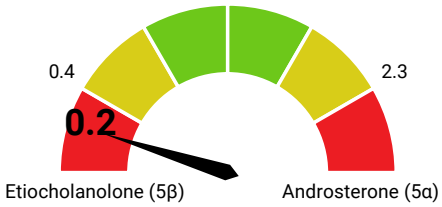
This ratio indicates that the levels of expected testosterone metabolites are normal in relative ratio to testosterone. The most optimal ratio is 1 (center green). Patients at the high or low ends of normal (yellow) are approaching an imbalance.

Testosterone/Estrogen Ratio



Relative to testosterone levels, this patient's estrogen level is balanced with testosterone. Achieving balance between estrogen and testosterone in men (with ratios greater than 1) produces optimal clinical outcomes. Although this ratio is normal, confirm that both Testosterone and Estrogen are not higher than expected by reviewing the Total Estrogen Load and Testosterone results individually.

5α-Reductase Activity



5-alpha-reductase (5aR) activity appears low but may not be clinically relevant if other 5a levels are higher than 5b levels. Confirm this value by comparing 5a-pregnanediol to 5b-pregnanediol, testosterone to 5a-DHT, and cortisol to a-THFs in this report. Low 5aR activity can be an indicator of backdoor metabolism of androgens, higher levels of aromatase activity, lower 5a-Pregnanediol or lower levels of the downstream metabolites of testosterone and cortisol. Patients who have lower 5aR activity (5aR ratio < = 0.5) may need a higher dose of testosterone during therapy, if testosterone metabolites are also low. Optimal balance exists when the ratio is nearest 1 (center).

HPA-Axis Markers

	Units	Observation	Target Ranges

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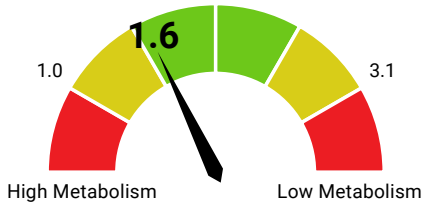
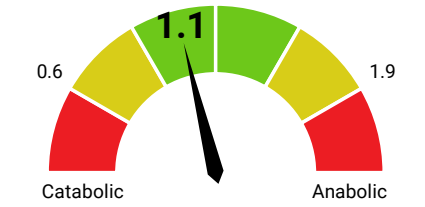
Cortisol	ng/mg 24hr CR		19.1 – 57.7, 48.9
Cortisone	ng/mg 24hr CR	High	28.6 – 80.0, 103.5
Cortisol Metabolites	ng/mg CR		576.0 – 1579.8, 1500.9
Total 17-Hydroxysteroids	ng/mg CR	High	772.7 – 1946.6, 2701.8
DHEA	ng/mg CR		3.0 – 31.7, 12.0
Total 17-Ketosteroids	ng/mg CR	High	364.6 – 1127.7, 1739.8

Cortisol/Metabolite Ratio



The Cortisol:Metabolite Ratio is normal. This means that the levels of free cortisol can be taken at face value because the rate of cortisol metabolism is balanced with the amount of free-cortisol. (see the cortisol curve to assess adrenal function). Certain 17-Hydroxystroids are also cortisol metabolites, and as such, should be in balance with 17-Ketosteroids for optimal function (see Anabolic/Catabolic ratio)

Anabolic/Catabolic Ratio



This patient is balanced between anabolic steroids and catabolic steroids, creating a bio-environment for cell proliferation and tissue health to perform at optimal levels while still allowing for detoxification and responses to stress. The optimal ratio is 1 (center). When results near the low end(more catabolic - left yellow zone) or the high end (more anabolic - right yellow zone) of the normal range, the anaboblic/catabolic ratio is approaching an imbalance.

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Patient Result History

Please Note: Effective 4/15/24 Cortisol and Cortisone have new reference ranges

Analyte	Unit	8/29/2024 | (S-0824-0000023)			9/20/2024 | (T-0924-0000027)		
		Observation	Results	Reference Range	Observation	Results	Reference Range
Creatinine	mg/dL		82.8	30.00 - 300.00		139.2	30.0 - 300.0
Estrogen and Progesterone Markers							
Alpha-Pregnanediol	ng/mg CR	High	1605.0	14.0 - 97.4	High	110.2	14.0 - 97.4
Beta-Pregnanediol	ng/mg CR	High	10333.3	90.4 - 535.0	High	921.7	90.3 - 534.4
Alpha-Pregnanediol / Beta-Pregnanediol Ratio	Ratio		0.9	.50 - 1.50		0.7	0.6 - 2.3
Total Estrogen Load	ng/mg CR	High	160.6	20.00 - 46.00	High	52.2	13.3 - 47.6
Estrone	ng/mg CR	High	13.2	.9 - 4.8		4.1	0.9 - 4.8
Estradiol	ng/mg CR	High	8.7	.5 - 2.0	High	2.3	0.5 - 2.0
Estriol	ng/mg CR	High	14.3	.8 - 4.9		3.9	0.8 - 4.9
2-Hydroxyestrone	ng/mg CR	High	6.5	.8 - 3.8	High	9.6	0.8 - 3.8
16a-Hydroxyestrone	ng/mg CR	Below Detection Limit	-	<=.8	Below Detection Limit	-	<=0.8
4-Hydroxyestrone	ng/mg CR	Below Detection Limit	-	.1 - .7	High	1.0	0.1 - 0.7
E Quotient	Ratio	Low	0.6	>=1.00		0.6	>=0.3
2-Methoxyestrone	ng/mg CR		7.4	1.5 - 13.6		1.7	1.5 - 13.6
2:16 Ratio (2-OHE1/16α-OHE1)	Ratio	Unable to Calculate	-	>=4.00	Unable to Calculate	-	>=0.8
Methylation Ratio	Ratio		113.8	>=60.00	Low	17.6	>=75.9
Androgen Markers							
Testosterone	ng/mg CR		28.2	4.8 - 44.2		23.9	4.8 - 44.3
Dihydrotestosterone	ng/mg CR	High	16.7	1.1 - 5.8	High	7.0	1.1 - 5.8
Testosterone Metabolites	ng/mg CR	High	276.2	47.60 - 159.60		103.1	30.0 - 142.2
Testosterone/Metabolite Ratio	Ratio	Low	0.4	.50 - 1.50		0.9	0.5 - 2.2
Androsterone	ng/mg CR		204.5	134.2 - 556.9		271.9	134.4 - 559.5
Etiocholanolone	ng/mg CR	High	1424	80.8 - 491.3	High	939	80.7 - 491.8
5-alpha-Androstanediol	ng/mg CR	Below Detection Limit	-	11.3 - 68.7		20.1	11.3 - 68.6
5-beta-Androstanediol	ng/mg CR	High	257.7	17.3 - 106.4		75.3	17.3 - 105.8
DHEA	ng/mg CR	Low	2.9	3.0 - 31.7		12.0	3.0 - 31.7
DHEA-S	ng/mg CR		103.6	38.00 - 507.00	Low	24.2	25.5 - 595.7
5α-Reductase Activity	Ratio	Low	0.1	.50 - 1.50	Low	0.2	0.4 - 2.3
Androstenedione	ng/mg CR		0.7	.4 - 1.4		0.6	0.4 - 1.4
Testosterone: Estrogen Ratio	Ratio	Low	0.2	.50 - 1.50		0.6	0.3 - 3.0
HPA - Axis Markers							
Waking Cortisol	ng/mg CR		8.9	4.80 - 31.10		15.5	4.8 - 31.1
Mid-morning Cortisol	ng/mg CR		13.0	10.10 - 44.70	Low	2.6	10.1 - 44.7
Afternoon Cortisol	ng/mg CR		6.0	5.90 - 22.40	Low	1.8	5.9 - 22.4
Evening Cortisol	ng/mg CR		7.4	2.70 - 13.50	Low	1.7	2.7 - 13.5
Bedtime Cortisol	ng/mg CR	High	9.4	1.60 - 8.00	Low	0.9	1.6 - 8.0
Waking Cortisone	ng/mg CR		36.7	17.70 - 64.10		54.7	17.7 - 64.1
Mid-morning Cortisone	ng/mg CR		55.8	32.50 - 102.80	Low	25.2	32.5 - 102.8
Afternoon Cortisone	ng/mg CR		30.1	20.90 - 80.20	Low	17.0	20.9 - 80.2
Evening Cortisone	ng/mg CR		31.8	13.50 - 48.80		15.4	13.5 - 48.8
Bedtime Cortisone	ng/mg CR		18.1	7.40 - 30.20	Low	5.4	7.4 - 30.2
Cortisol	ng/mg 24hr CR		24.5	19.1 - 57.8		48.9	19.1 - 57.7
Cortisone	ng/mg 24hr CR		53.0	28.6 - 80.0	High	103.5	28.6 - 80.0
Pregnanetriol	ng/mg CR		430.9	75.2 - 436.9	High	1134.6	75.1 - 436.6
Allo-Tetrahydrocortisol	ng/mg CR	Low	48.1	53.1 - 281.6		198.8	53.2 - 281.7
Tetrahydrodeoxycortisol	ng/mg CR		30.2	19.2 - 67.0		66.4	19.2 - 67.0
Tetrahydrocortisone	ng/mg CR		694.9	364.8 - 1094.9		727.5	364.6 - 1093.6
Tetrahydrocortisol	ng/mg CR		344.5	191.7 - 600.3		574.6	191.5 - 601.2
11-Keto (Androsterone + Etiocholanolone)	ng/mg CR		83.7	29.6 - 169.5		133.7	29.6 - 169.1

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Analyte	Unit	8/29/2024 | (S-0824-0000023)			9/20/2024 | (T-0924-0000027)		
		Observation	Results	Reference Range	Observation	Results	Reference Range
11b-Hydroxyandrosterone	ng/mg CR	Low	22.4	25.4 - 136.1	High	142.4	25.5 - 136.0
11b-Hydroxyetiocholanolone	ng/mg CR		192.2	26.6 - 203.2	High	240.5	26.5 - 201.9
Cortisol Metabolites	ng/mg CR		1087.5	1082.00 - 1980.00		1500.9	576.0 - 1579.8
Cortisol: Metabolite Ratio	Ratio		1.1	.50 - 1.50		1.6	1.0 - 3.1
Total 17-Ketosteroids	ng/mg CR	High	1930.8	702.00 - 1379.00	High	1739.8	364.6 - 1127.7
Total 17-Hydroxysteroids	ng/mg CR		1548.5	1328.00 - 2333.00	High	2701.8	772.7 - 1946.6
Anabolic/Catabolic Ratio	Ratio	High	2.2	.50 - 1.50		1.1	0.6 - 1.9
Cortisol/Cortione 11B-HSD II	Ratio		0.9	.40 - 1.20	Low	0.9	1.0 - 2.1

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