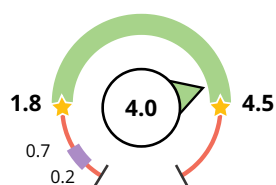


Ordering Provider:

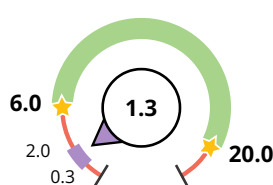
Precision Analytical

Hormone Testing Summary

ESTROGEN & PROGESTERONE



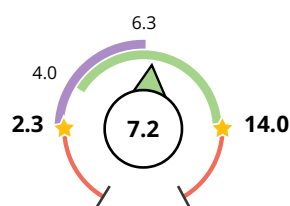
Estradiol (E2)



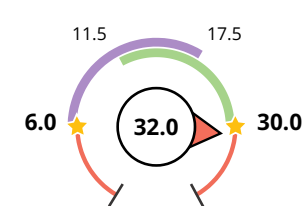
Progesterone

Serum Equivalent*, ng/mL

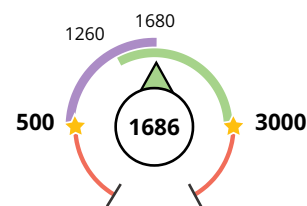
ANDROGENS



Testosterone



5a-Androstenediol

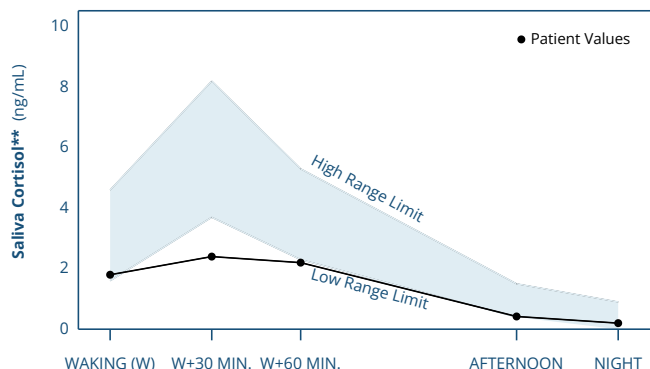


Total DHEA Production

DHEA-S + Etiocholanolone + Androsterone

CORTISOL

Saliva Free Cortisol Pattern



Cortisol Clearance Rate

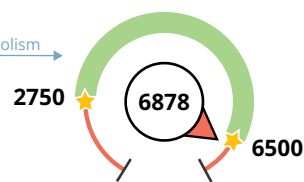
THF + THE / Cortisol + Cortisone



Saliva Cortisol Total

Sum of 5 values

Cortisol Metabolism



Metabolized Cortisol

Total Cortisol Production (THF + THE)

Optimal Luteal Range Postmenopausal Range Out of Range Edge of Range

*Progesterone Serum Equivalent is a calculated value based on urine pregnanediol.

**Free cortisol best reflects tissue levels. Metabolized cortisol best reflects total cortisol production.

**Accession # 01035994**Female Sample Report
123 A Street
Sometown, CA 90266**DOB:** 1976-01-01**Age:** 46**Sex:** Female**Last Menstrual Period:****Collection Times:**2022-06-13 04:00AM (S)
2022-06-13 04:30AM (S)
2022-06-13 05:00AM (S)
2022-06-13 03:00PM (S)
2022-06-13 08:00PM (S)

2022-06-13 04:00AM (U)
2022-06-13 06:00AM (U)
2022-06-13 03:00PM (U)
2022-06-13 08:00PM (U)**Ordering Provider:**

Precision Analytical

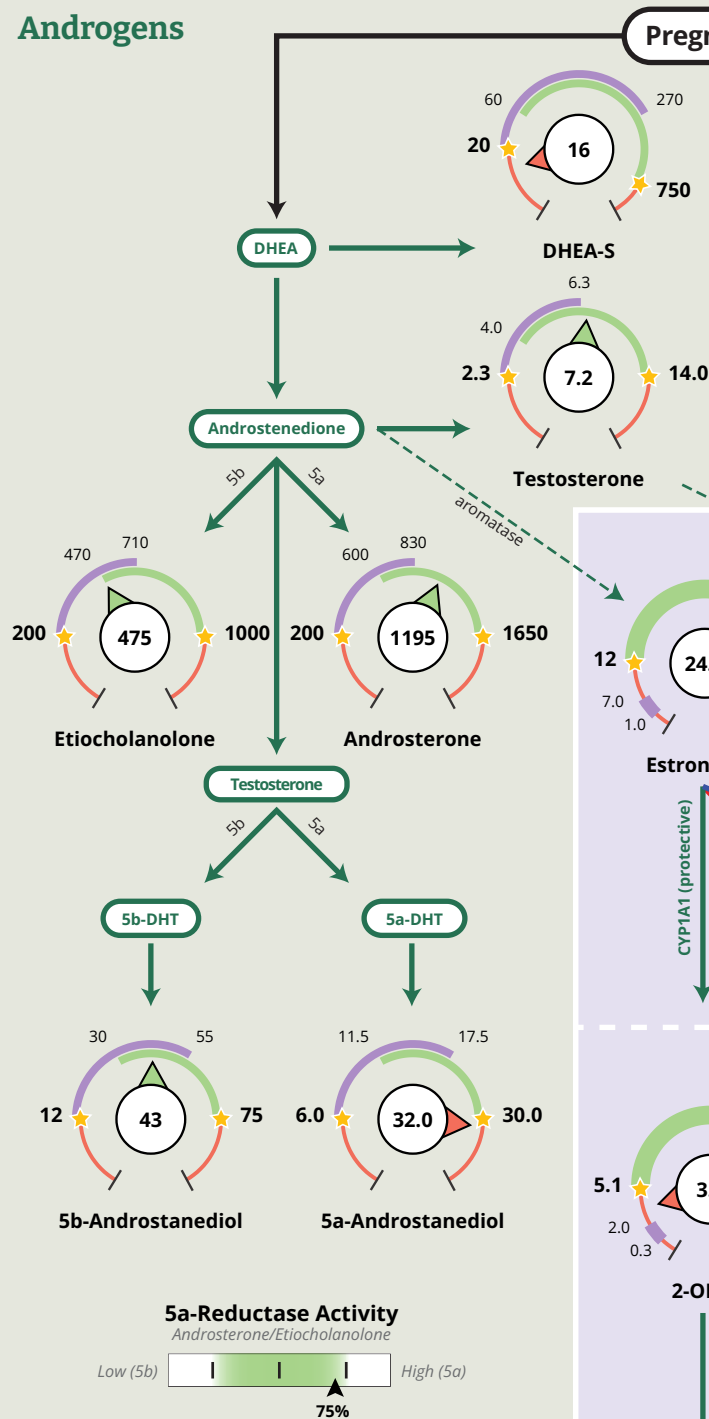
Sex Hormones & Metabolites

TEST		RESULT	UNITS	LUTEAL*	POSTMENOPAUSAL
Progesterone Metabolites (Urine)					
b-Pregnanediol	Below luteal range	100.0	ng/mg	600 - 2000	60 - 200
a-Pregnanediol	Below luteal range	49.0	ng/mg	200 - 740	15 - 50
Estrogens and Metabolites (Urine)					
Estrone (E1)	High end of luteal range	24.01	ng/mg	12 - 26	1.0 - 7.0
Estradiol (E2)	High end of luteal range	4.00	ng/mg	1.8 - 4.5	0.2 - 0.7
Estriol (E3)	High end of luteal range	16.0	ng/mg	5 - 18	0.6 - 4.0
2-OH-E1	Below luteal range	3.58	ng/mg	5.1 - 13.1	0.3 - 2.0
4-OH-E1	Within luteal range	1.20	ng/mg	0 - 1.8	0 - 0.3
16-OH-E1	Above luteal range	2.80	ng/mg	0.7 - 2.6	0.2 - 0.6
2-Methoxy-E1	Below luteal range	1.35	ng/mg	2.5 - 6.5	0.3 - 1.4
2-OH-E2	Within luteal range	0.74	ng/mg	0 - 3.1	0 - 0.52
4-OH-E2	Within luteal range	0.41	ng/mg	0 - 0.52	0 - 0.12
Total Estrogen	Within range	54.1	ng/mg	35 - 70	3.5 - 15
Metabolite Ratios (Urine)					
2-OH / 16-OH-E1 Balance	Below range	1.28	ratio	2.69 - 11.83	
2-OH / 4-OH-E1 Balance	Below range	2.98	ratio	5.4 - 12.62	
2-Methoxy / 2-OH Balance	Below range	0.38	ratio	0.39 - 0.67	
Androgens and Metabolites (Urine)				Range	
DHEA-S	Below range	16.0	ng/mg	20 - 750	
Androsterone	Within range	1195.0	ng/mg	200 - 1650	
Etiuchanolone	Within range	474.6	ng/mg	200 - 1000	
Testosterone	Within range	7.16	ng/mg	2.3 - 14	
5a-DHT	High end of range	6.2	ng/mg	0 - 6.6	
5a-Androstanediol	Above range	32.0	ng/mg	6 - 30	
5b-Androstanediol	Within range	42.6	ng/mg	12 - 75	
Epi-Testosterone	Within range	8.6	ng/mg	2.3 - 14	

* The Luteal Range represents the expected premenopausal luteal range, collected menstrual cycle days 19-22 of a 28-day cycle. If your patient noted taking oral progesterone, the reference range represents the expected range on 100 - 200 mg of oral micronized progesterone (OMP). The ranges in the table below represent ranges in other times of the cycle your patient may have collected, such as follicular or ovulatory phases.

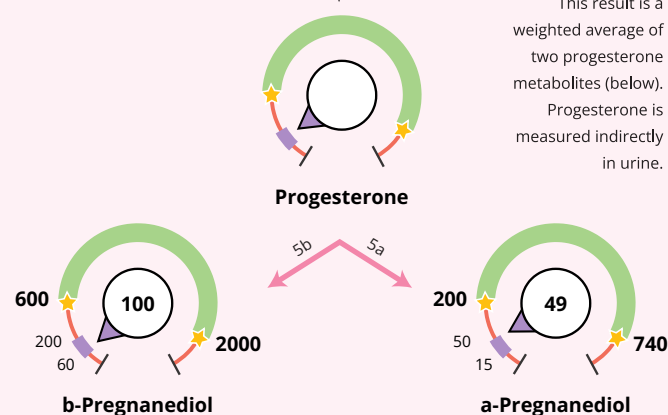
ADDITIONAL NORMAL RANGES	FOLLICULAR	OVULATORY	ON ORAL PG
b-Pregnanediol	100 - 300	100 - 300	2000 - 9000
a-Pregnanediol	25 - 100	25 - 100	580 - 3000
Estrone (E1)	4.0 - 12.0	22 - 68	N/A
Estradiol (E2)	1.0 - 2.0	4.0 - 12.0	N/A

Androgens

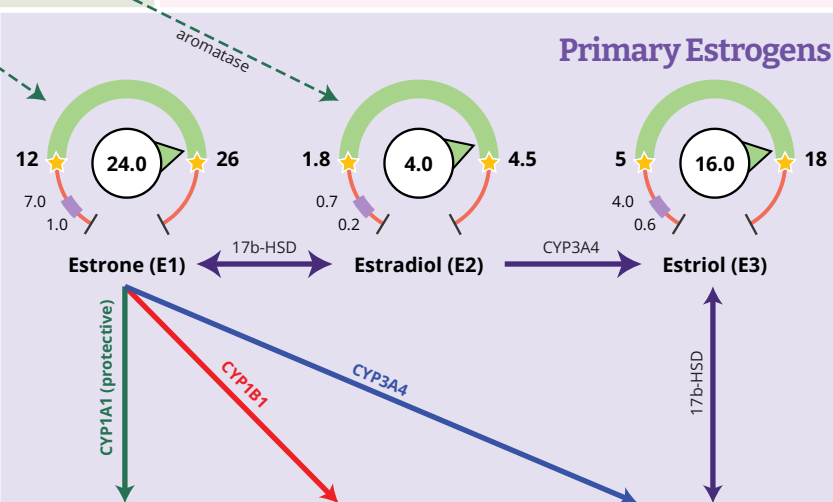


Progesterone

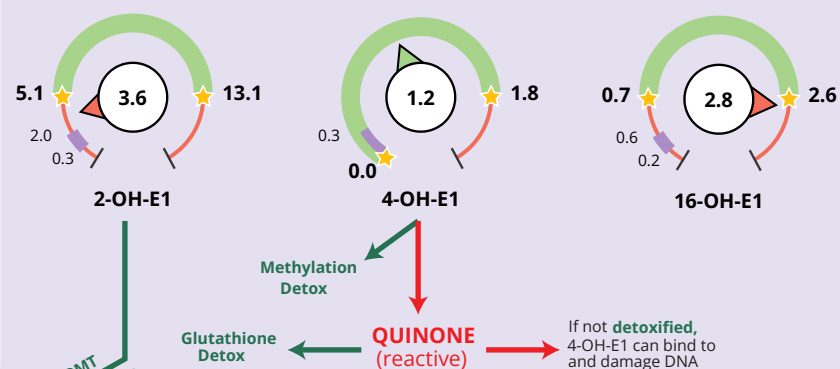
This result is a weighted average of two progesterone metabolites (below). Progesterone is measured indirectly in urine.



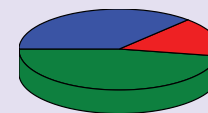
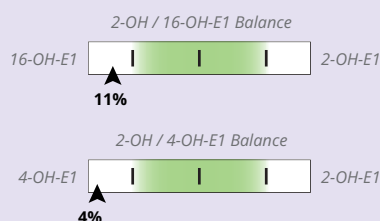
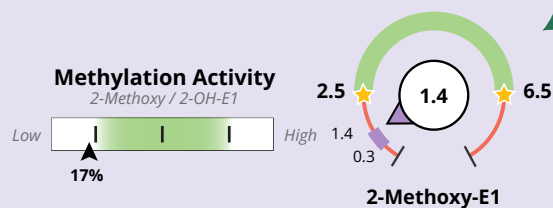
Primary Estrogens



Phase 1 Estrogen Metabolism



Phase 2 Estrogen Metabolism



Patient Percentages	47.2%	15.8%	36.9%
Expected Percentages	60-80% (2-OH)	7.5-11% (4-OH)	13-30% (16-OH)

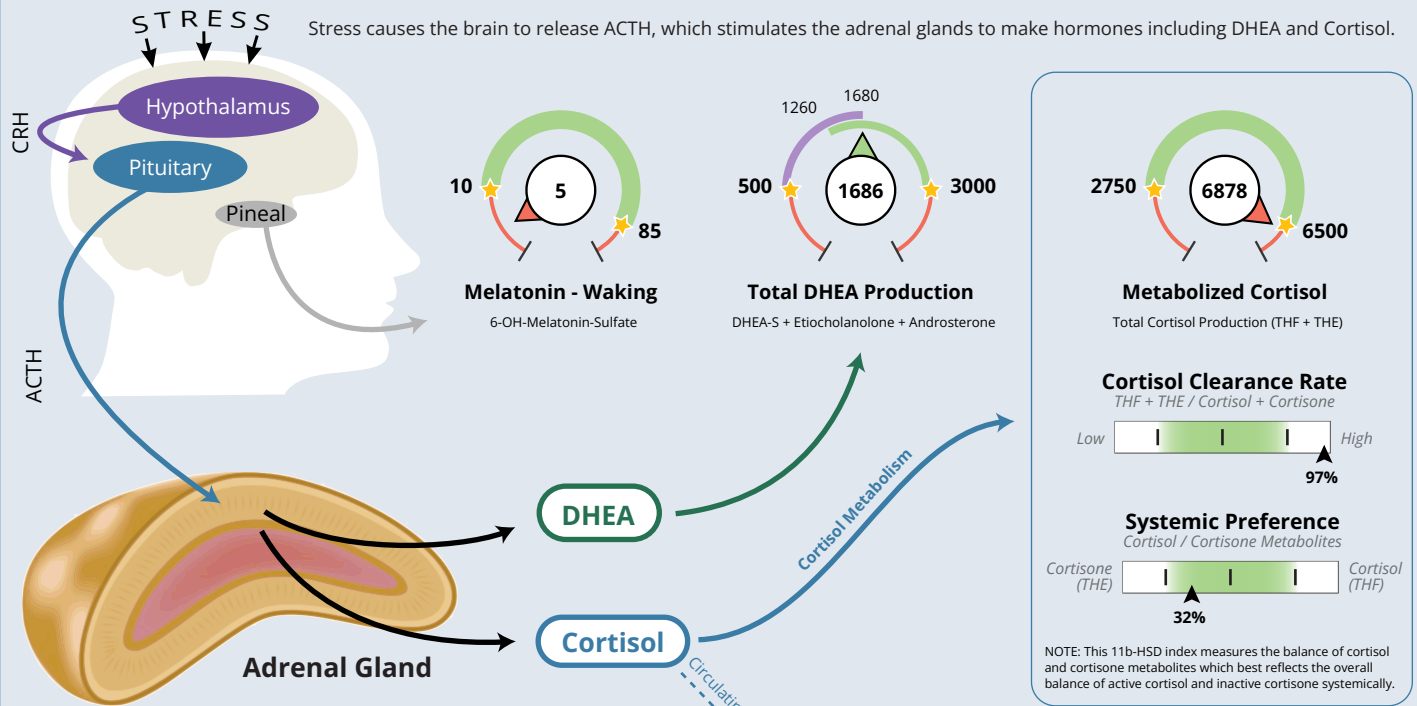
**Accession # 01035994**Female Sample Report
123 A Street
Sometown, CA 90266**DOB:** 1976-01-01**Age:** 46**Sex:** Female**Last Menstrual Period:****Collection Times:**2022-06-13 04:00AM (S)
2022-06-13 04:30AM (S)
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2022-06-13 01:00AM (S*)
2022-06-13 04:00AM (U)
2022-06-13 06:00AM (U)
2022-06-13 03:00PM (U)
2022-06-13 08:00PM (U)**Ordering Provider:**

Precision Analytical

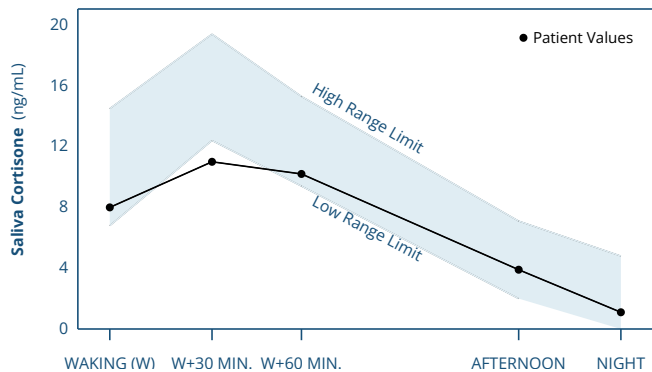
Adrenal Hormones & Metabolites

TEST		RESULT	UNITS	NORMAL RANGE
Free Cortisol and Cortisone (Saliva)				
Saliva Cortisol - Waking (W)	Low end of range	1.80	ng/mL	1.6 - 4.6
Saliva Cortisol - W+30 min.	Below range	2.40	ng/mL	3.7 - 8.2
Saliva Cortisol - W+60 min.	Below range	2.20	ng/mL	2.3 - 5.3
Saliva Cortisol - Afternoon	Low end of range	0.42	ng/mL	0.4 - 1.5
Saliva Cortisol - Night	Within range	0.20	ng/mL	0 - 0.9
Saliva Cortisone - Waking (W)	Low end of range	8.00	ng/mL	6.8 - 14.5
Saliva Cortisone - W+30 min.	Below range	11.00	ng/mL	12.4 - 19.4
Saliva Cortisone - W+60 min.	Low end of range	10.20	ng/mL	9.4 - 15.3
Saliva Cortisone - Afternoon	Within range	3.90	ng/mL	2 - 7.1
Saliva Cortisone - Night	Within range	1.10	ng/mL	0 - 4.8
Saliva Cortisol Total	Below range	7.02	ng/mL	9.6 - 19.3
Saliva Cortisone Total	Below range	34.20	ng/mL	36 - 55
Creatinine (Urine)				
Creatinine A - Waking	Within range	0.50	mg/ml	0.2 - 2
Creatinine B - Morning	Within range	0.72	mg/ml	0.2 - 2
Creatinine C - Afternoon	Within range	0.48	mg/ml	0.2 - 2
Creatinine D - Night	Within range	0.34	mg/ml	0.2 - 2
Cortisol Metabolites and DHEA-S (Urine)				
a-Tetrahydrocortisol (a-THF)	Above range	464.0	ng/mg	75 - 370
b-Tetrahydrocortisol (b-THF)	Within range	2318.9	ng/mg	1050 - 2500
b-Tetrahydrocortisone (b-THE)	Above range	4095.1	ng/mg	1550 - 3800
Metabolized Cortisol (THF + THE)	Above range	6878.0	ng/mg	2750 - 6500
DHEA-S	Below range	16.0	ng/mg	20 - 750
Cortisol Clearance Rate (CCR)	Above range	166.9		45 - 95
Additional Cortisol and Cortisone (Saliva)				
* Saliva Cortisol - Insomnia	Above range	1.10	ng/mL	0 - 0.9
* Saliva Cortisone - Insomnia	Above range	5.43	ng/mL	0 - 4.8

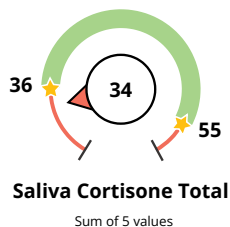
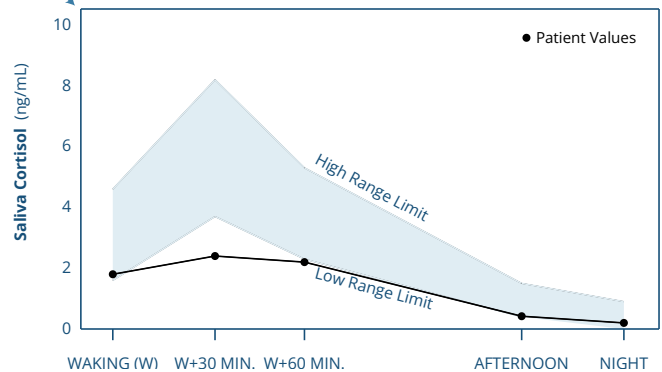
ADRENAL HORMONES & METABOLITES



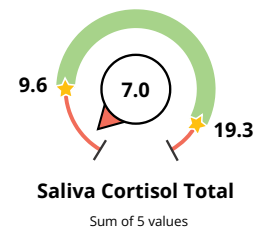
Saliva Free Cortisone Pattern



Saliva Free Cortisol Pattern



Cortisol and Cortisone interconvert (11b-HSD)



- The patient submitted an Insomnia salivary sample. The cortisol result for this sample was 1.10ng/mL (expected range 0-0.9) The cortisone result for this sample was 5.4 ng/mL (expected range 0-4.8)

The Cortisol Awakening Response (CAR) is the rise in salivary cortisol between the waking sample and the sample collected 30 minutes later. **This patient shows a waking cortisol of 1.80 and an increase to 2.40 after 30.0 minutes. This is an increase of 0.60ng/mL or 33.3%.** Preliminary research shows that 50-160% or 1.5-4.0ng/mL increases are common with samples collected 30 minutes after waking. These guidelines are considered research only.

This patient shows a salivary cortisol of 2.20 measured 60 minutes after waking. This is an increase of 0.40ng/mL or 22.2% compared to the waking sample. To date, data suggests that expected results may be 0-70%, and this guideline is considered for research only.

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2022-06-13 08:00PM (U)**Ordering Provider:**

Precision Analytical

Organic Acid Tests (OATs)

TEST		RESULT	UNITS	NORMAL RANGE
Nutritional Organic Acids (Urine)				
Vitamin B12 Marker - May be deficient if high				
Methylmalonate (MMA)	Above range	4.9	ug/mg	0 - 2.5
Vitamin B6 Markers - May be deficient if high				
Xanthurenate	Above range	1.23	ug/mg	0.12 - 1.2
Kynurenate	Above range	5.4	ug/mg	0.8 - 4.5
Biotin Marker - May be deficient if high				
b-Hydroxyisovalerate	Within range	7.9	ug/mg	0 - 12.5
Glutathione Marker - May be deficient if low or high				
Pyroglutamate	Within range	42.0	ug/mg	28 - 58
Gut Marker - Potential gut putrefaction or dysbiosis if high				
Indican	Above range	114.0	ug/mg	0 - 100
Neuro-Related Markers (Urine)				
Dopamine Metabolite				
Homovanillate (HVA)	Within range	4.4	ug/mg	3 - 11
Norepinephrine/Epinephrine Metabolite				
Vanilmandelate (VMA)	Within range	4.3	ug/mg	2.2 - 5.5
Neuroinflammation Marker				
Quinolinat	Above range	13.2	ug/mg	0 - 9.6
Additional Markers (Urine)				
Melatonin - Waking				
6-OH-Melatonin-Sulfate	Below range	5.3	ng/mg	10 - 85
Oxidative Stress / DNA Damage				
8-Hydroxy-2-deoxyguanosine (8-OHdG)	Within range	2.6	ng/mg	0 - 5.2