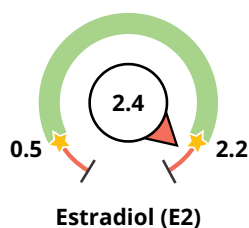


Ordering Provider:

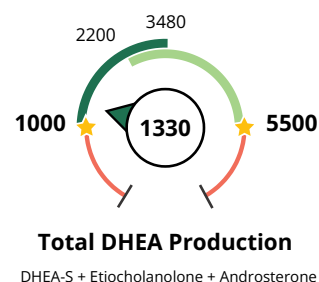
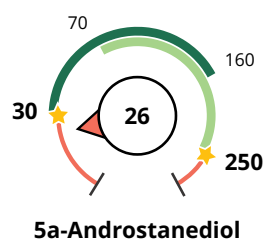
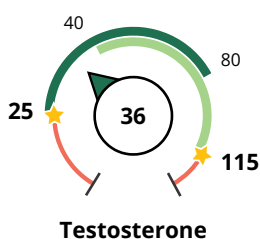
Precision Analytical

Hormone Testing Summary

ESTROGEN

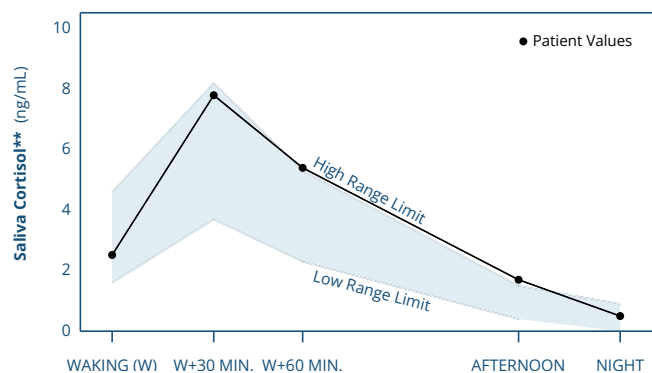


ANDROGENS

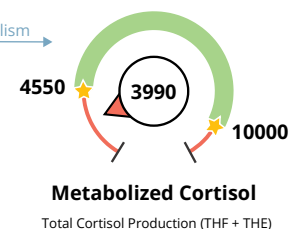
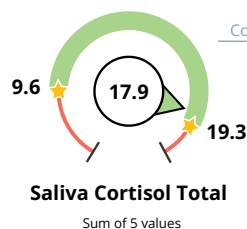
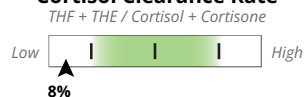


CORTISOL

Saliva Free Cortisol Pattern



Cortisol Clearance Rate



Normal

Out of Range ★ Edge of Range

Age 18 - 40 (Androgens)

Age 41 - 60+ (Androgens)

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

**Accession # 01035995**Male Sample Report
123 A Street
Sometown, CA 90266**DOB:** 1976-01-01**Age:** 46**Sex:** Male**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

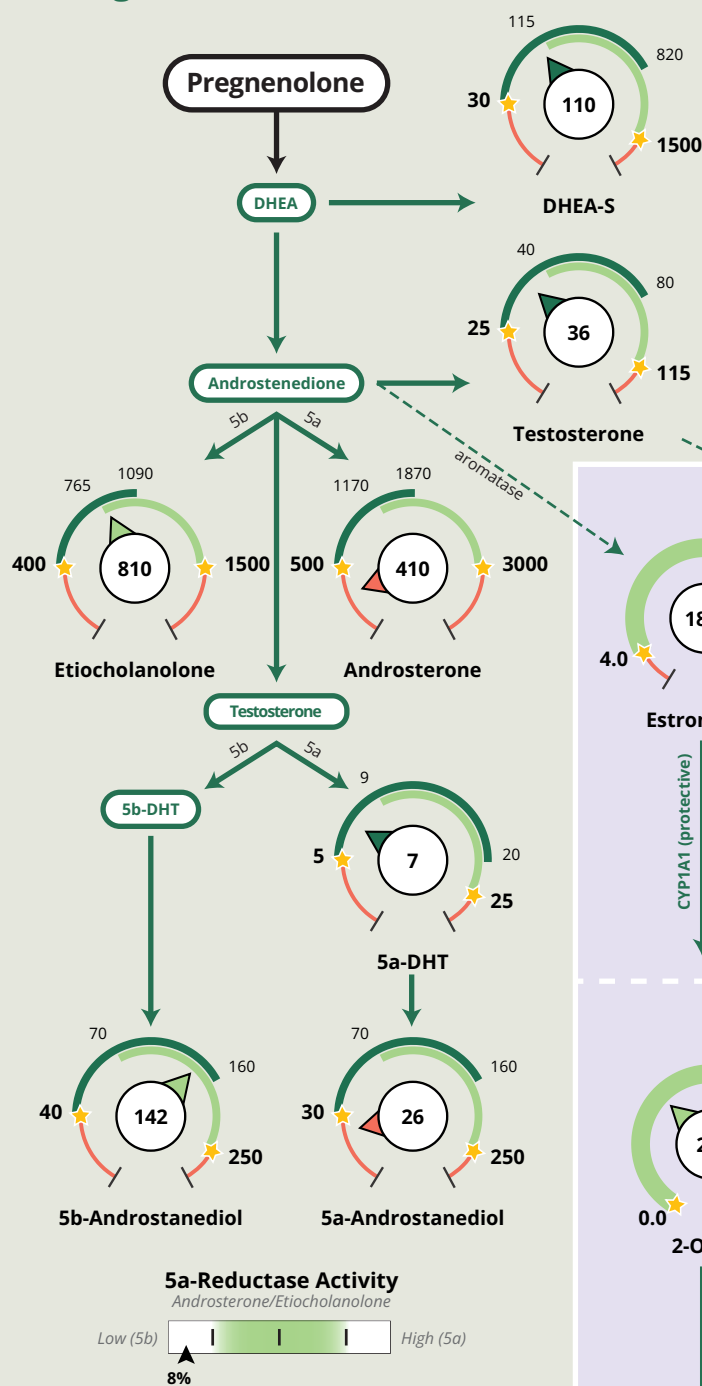
TEST		RESULT	UNITS	NORMAL RANGE
Progesterone Metabolites (Urine)				
b-Pregnanediol	Within range	175.7	ng/mg	75 - 400
a-Pregnanediol	Low end of range	24.0	ng/mg	20 - 130
Estrogens and Metabolites (Urine)				
Estrone (E1)	Above range	17.96	ng/mg	4 - 16
Estradiol (E2)	Above range	2.42	ng/mg	0.5 - 2.2
Estriol (E3)	Within range	5.6	ng/mg	2 - 8
2-OH-E1	Within range	2.08	ng/mg	0 - 5.9
4-OH-E1	Within range	0.60	ng/mg	0 - 0.8
16-OH-E1	Within range	1.00	ng/mg	0 - 1.2
2-Methoxy-E1	Within range	1.25	ng/mg	0 - 2.8
2-OH-E2	Within range	0.31	ng/mg	0 - 1.2
4-OH-E2	Within range	0.21	ng/mg	0 - 0.25
Total Estrogen	Within range	31.4	ng/mg	10 - 34
Metabolite Ratios (Urine)				
2-OH / 16-OH-E1 Balance	Below range	2.06	ratio	2.85 - 9.88
2-OH / 4-OH-E1 Balance	Below range	3.43	ratio	6.44 - 12.6
2-Methoxy / 2-OH Balance	Within range	0.61	ratio	0.4 - 0.7
Androgens and Metabolites (Urine)				
DHEA-S	Low end of range	110.0	ng/mg	30 - 1500
Androsterone	Below range	410.0	ng/mg	500 - 3000
Etiocholanolone	Within range	809.7	ng/mg	400 - 1500
Testosterone	Low end of range	36.03	ng/mg	25 - 115
5a-DHT	Low end of range	7.0	ng/mg	5 - 25
5a-Androstanediol	Below range	26.0	ng/mg	30 - 250
5b-Androstanediol	Within range	142.0	ng/mg	40 - 250
Epi-Testosterone	Low end of range	41.2	ng/mg	25 - 115

"Normal" range shown above is the overall normal range across all ages (shown as between the stars on the dials). Age-dependent reference ranges are now included with the DUTCH dials on the next page.

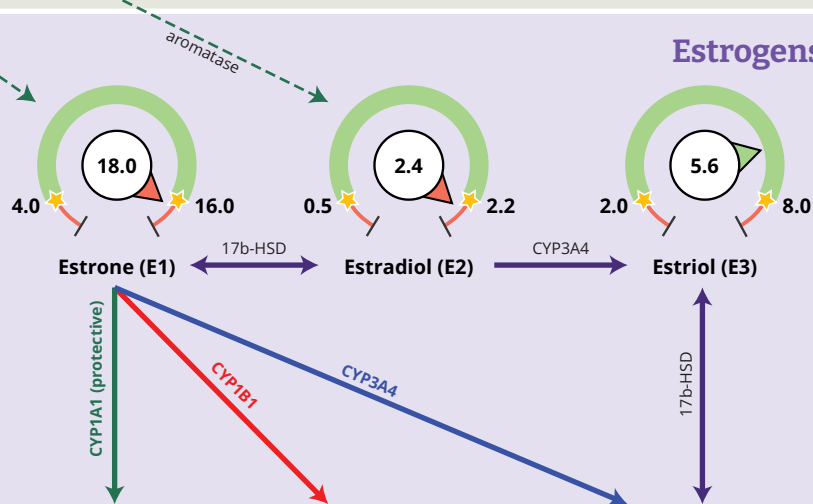
SEX HORMONES & METABOLITES

Androgens

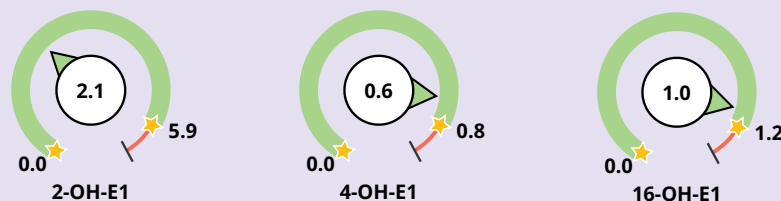
■ Normal
■ Out of Range ★ Edge of Range
■ Age 18 - 40 (Androgens)
■ Age 41 - 60+ (Androgens)



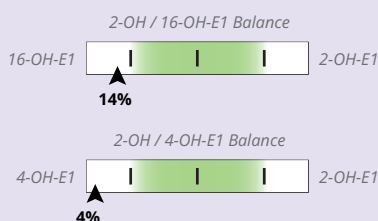
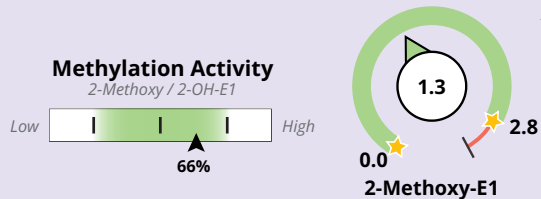
Estrogens



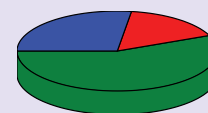
Phase 1 Estrogen Metabolism



Phase 2 Estrogen Metabolism



QUINONE (reactive)
 If not detoxified, 4-OH-E1 can bind to and damage DNA



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

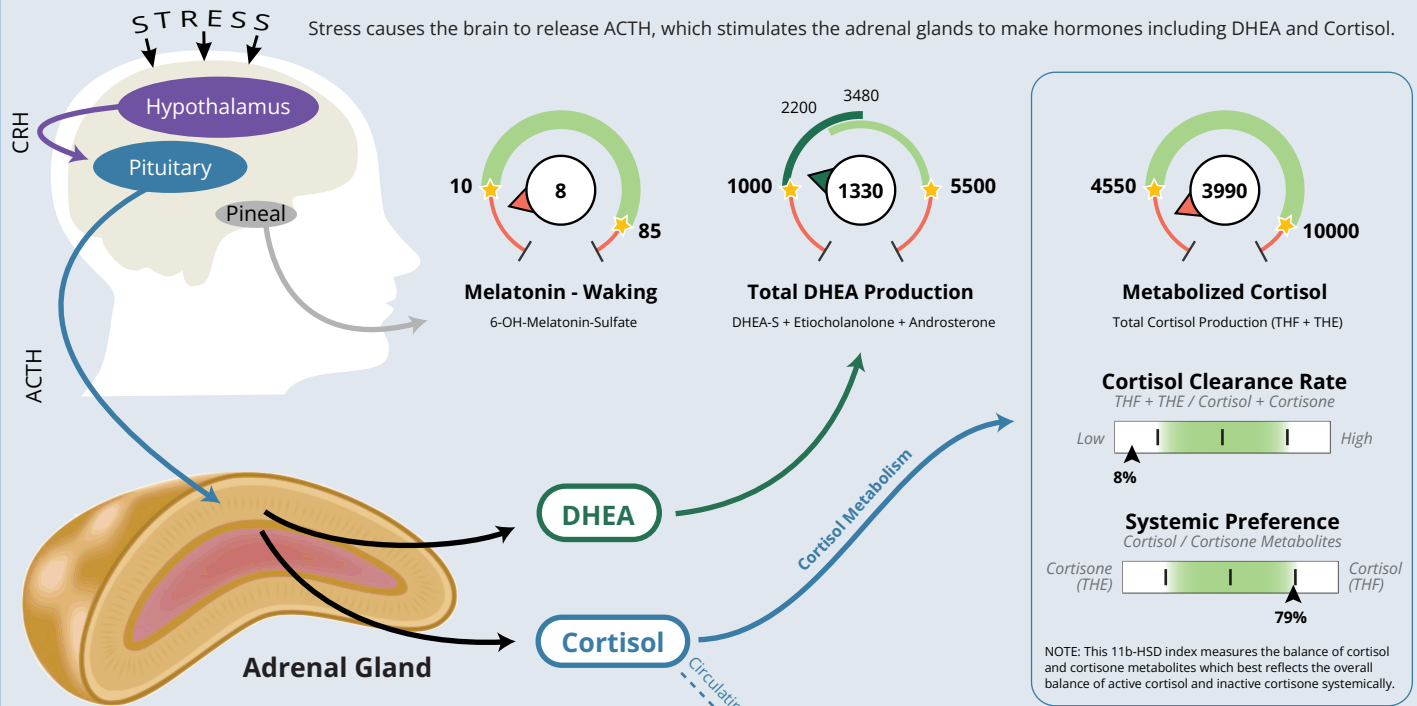
**Accession # 01035995**Male Sample Report
123 A Street
Sometown, CA 90266**DOB:** 1976-01-01**Age:** 46**Sex:** Male**Collection Times:**2022-06-13 04:00AM (S)
2022-06-13 04:30AM (S)
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2022-06-13 08:00PM (S)
2022-06-14 01:12AM (S*)
2022-06-13 04:00AM (U)
2022-06-13 06:00AM (U)
2022-06-13 03:00PM (U)
2022-06-13 08:00PM (U)**Ordering Provider:**

Precision Analytical

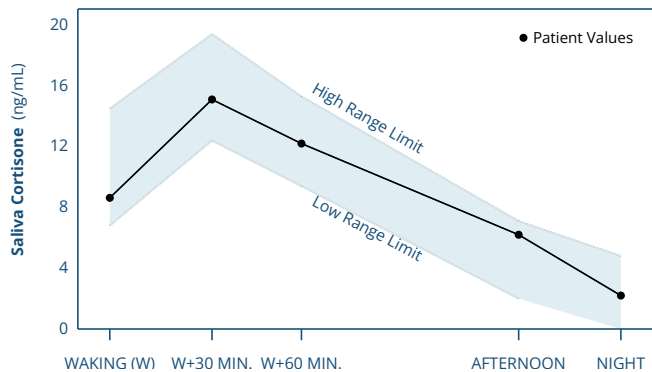
Adrenal Hormones & Metabolites

TEST		RESULT	UNITS	NORMAL RANGE
Free Cortisol and Cortisone (Saliva)				
Saliva Cortisol - Waking (W)	Within range	2.52	ng/mL	1.6 - 4.6
Saliva Cortisol - W+30 min.	High end of range	7.80	ng/mL	3.7 - 8.2
Saliva Cortisol - W+60 min.	Above range	5.40	ng/mL	2.3 - 5.3
Saliva Cortisol - Afternoon	Above range	1.70	ng/mL	0.4 - 1.5
Saliva Cortisol - Night	Within range	0.50	ng/mL	0 - 0.9
Saliva Cortisone - Waking (W)	Within range	8.63	ng/mL	6.8 - 14.5
Saliva Cortisone - W+30 min.	Within range	15.10	ng/mL	12.4 - 19.4
Saliva Cortisone - W+60 min.	Within range	12.20	ng/mL	9.4 - 15.3
Saliva Cortisone - Afternoon	Within range	6.20	ng/mL	2 - 7.1
Saliva Cortisone - Night	Within range	2.20	ng/mL	0 - 4.8
Saliva Cortisol Total	High end of range	17.92	ng/mL	9.6 - 19.3
Saliva Cortisone Total	Within range	44.33	ng/mL	36 - 55
Creatinine (Urine)				
Creatinine A - Waking	Within range	0.50	mg/ml	0.3 - 3
Creatinine B - Morning	Within range	0.72	mg/ml	0.3 - 3
Creatinine C - Afternoon	Within range	0.48	mg/ml	0.3 - 3
Creatinine D - Night	Within range	0.34	mg/ml	0.3 - 3
Cortisol Metabolites and DHEA-S (Urine)				
a-Tetrahydrocortisol (a-THF)	Below range	140.0	ng/mg	175 - 700
b-Tetrahydrocortisol (b-THF)	Low end of range	1900.0	ng/mg	1750 - 4000
b-Tetrahydrocortisone (b-THE)	Below range	1950.0	ng/mg	2350 - 5800
Metabolized Cortisol (THF + THE)	Below range	3990.0	ng/mg	4550 - 10000
DHEA-S	Low end of range	110.0	ng/mg	30 - 1500
Cortisol Clearance Rate (CCR)	Below range	64.1		80 - 160
Additional Cortisol and Cortisone (Saliva)				
* Saliva Cortisol - Insomnia	Within range	0.42	ng/mL	0 - 0.9
* Saliva Cortisone - Insomnia	Within range	2.10	ng/mL	0 - 4.8

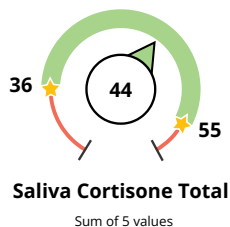
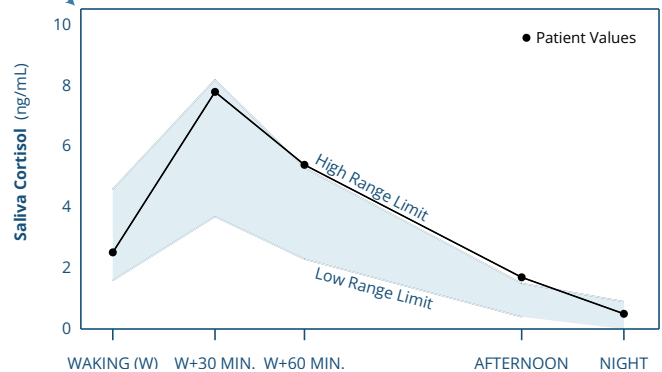
ADRENAL HORMONES & METABOLITES



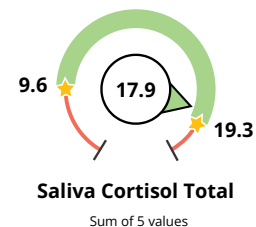
Saliva Free Cortisone Pattern



Saliva Free Cortisol Pattern



Cortisol and Cortisone interconvert (11β-HSD)



- The patient submitted an Insomnia salivary sample. The cortisol result for this sample was 0.42ng/mL (expected range 0-0.9) The cortisone result for this sample was 2.10 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 2.52 and an increase to 7.8 after 30.0 minutes. This is an increase of 5.3ng/mL or 210%.** 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 5.4 measured 60 minutes after waking. This is an increase of 2.88ng/mL or 114% compared to the waking sample. To date, data suggests that expected results may be 0-70%, and this guideline is considered for research only.



Accession # 01035995

Male Sample Report
123 A Street
Sometown, CA 90266

DOB: 1976-01-01

Age: 46

Sex: Male

Collection Times:

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2022-06-13 06:00AM (U)
2022-06-13 03:00PM (U)
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)	Within range	2.9	ug/mg 0 - 3.5
Vitamin B6 Markers - May be deficient if high			
Xanthurenate	Above range	2.20	ug/mg 0.2 - 1.9
Kynurenate	High end of range	6.4	ug/mg 1 - 6.6
Biotin Marker - May be deficient if high			
b-Hydroxyisovalerate	Above range	23.0	ug/mg 0 - 18
Glutathione Marker - May be deficient if low or high			
Pyroglutamate	Within range	62.0	ug/mg 38 - 83
Gut Marker - Potential gut putrefaction or dysbiosis if high			
Indican	Within range	90.4	ug/mg 0 - 131
Neuro-Related Markers (Urine)			
Dopamine Metabolite			
Homovanillate (HVA)	Low end of range	4.4	ug/mg 4 - 16
Norepinephrine/Epinephrine Metabolite			
Vanilmandelate (VMA)	High end of range	7.3	ug/mg 2.5 - 7.5
Neuroinflammation Marker			
Quinolate	Within range	9.1	ug/mg 0 - 12.5
Additional Markers (Urine)			
Melatonin - Waking			
6-OH-Melatonin-Sulfate	Below range	7.8	ng/mg 10 - 85
Oxidative Stress / DNA Damage			
8-Hydroxy-2-deoxyguanosine (8-OHdG)	Within range	3.7	ng/mg 0 - 8.8