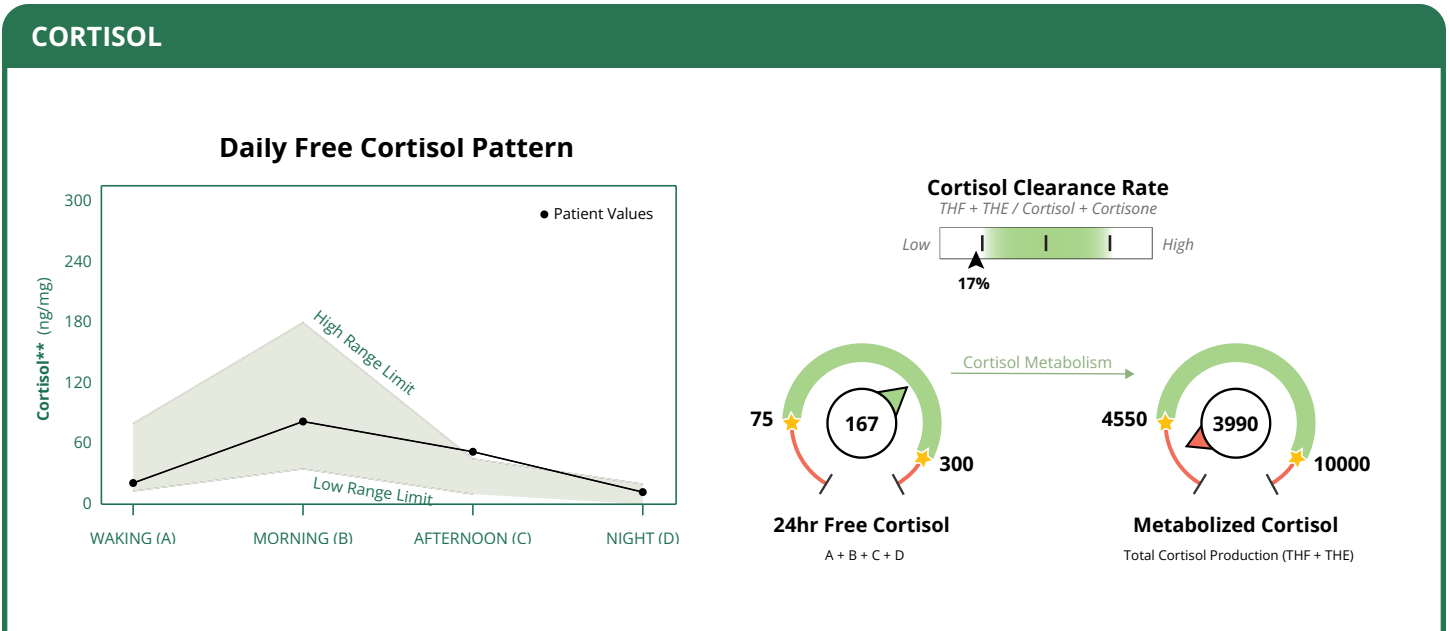
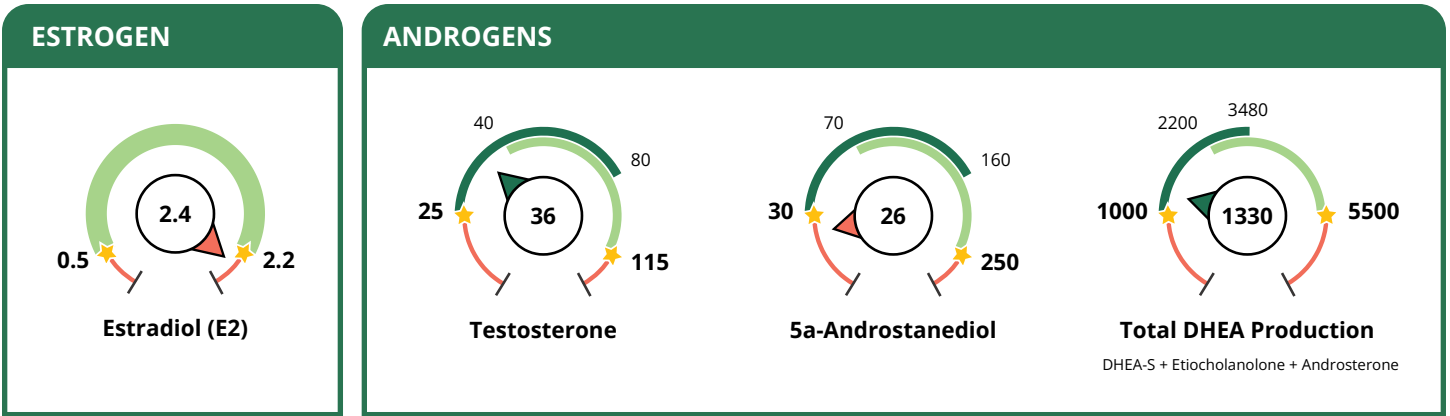


Ordering Provider:
Precision Analytical

Hormone Testing Summary



■ 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 # 01036002

Collection Times:

Male Sample Report
123 A Street
Sometown, CA 90266

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

DOB: 1976-01-01
Age: 46
Sex: Male

Ordering Provider:
Precision Analytical

Sex Hormones & Metabolites

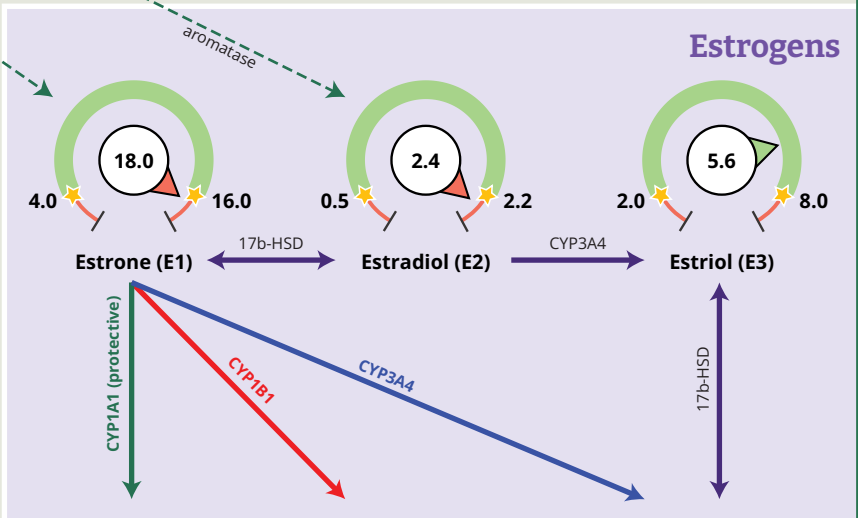
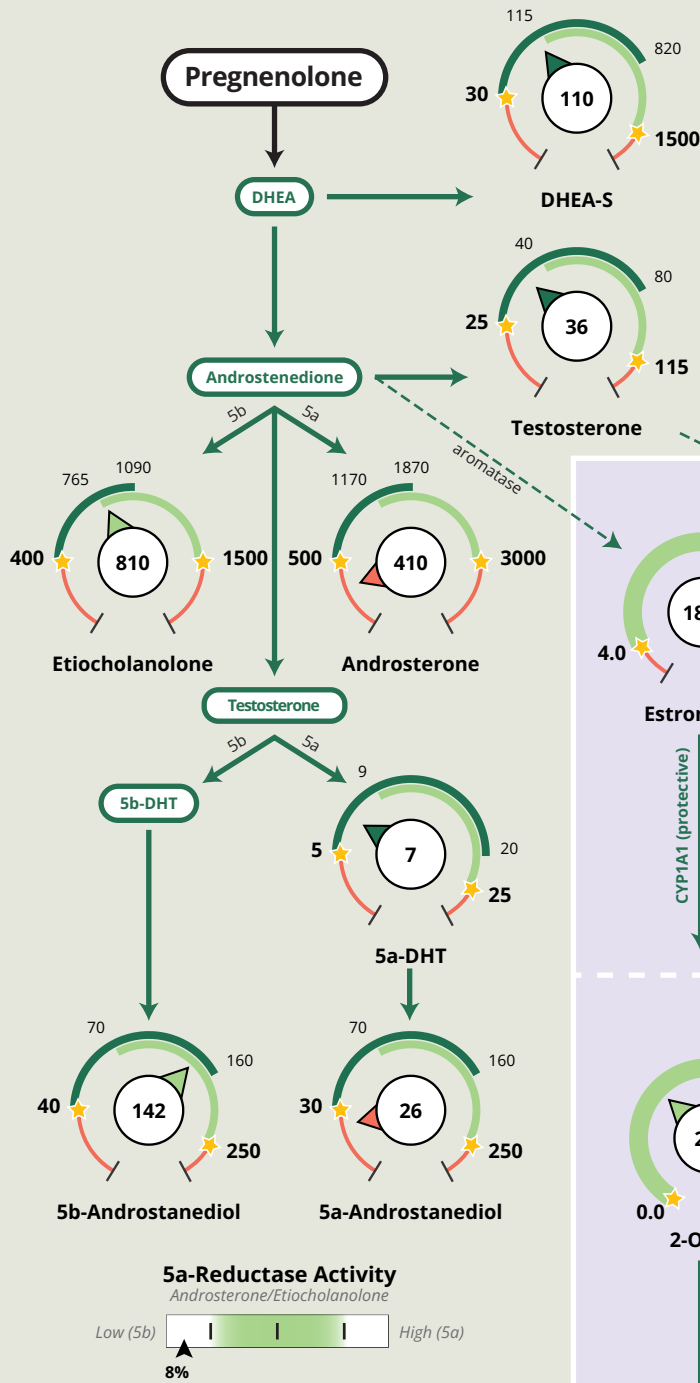
TEST	RESULT	UNITS	NORMAL RANGE
Progesterone Metabolites (Urine)			
b-Pregnanediol	Within range	175.7	ng/mg 75 - 400
a-Pregnanediol	Low end of range	24.0	ng/mg 20 - 130
Estrogens and Metabolites (Urine)			
Estrone (E1)	Above range	17.96	ng/mg 4 - 16
Estradiol (E2)	Above range	2.42	ng/mg 0.5 - 2.2
Estriol (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.

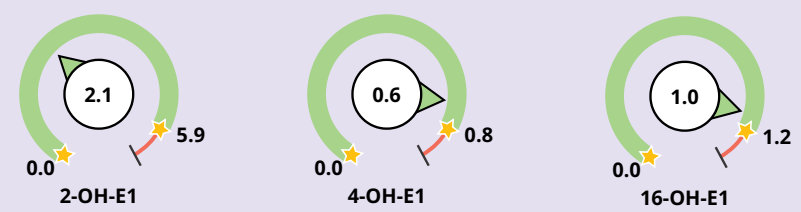
SEX HORMONES & METABOLITES

Androgens

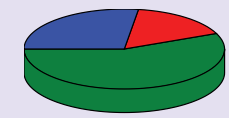
■ Normal ■ Age 18 - 40 (Androgens)
■ Out of Range ★ Edge of Range ■ Age 41 - 60+ (Androgens)



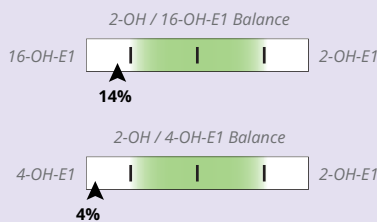
Phase 1 Estrogen Metabolism



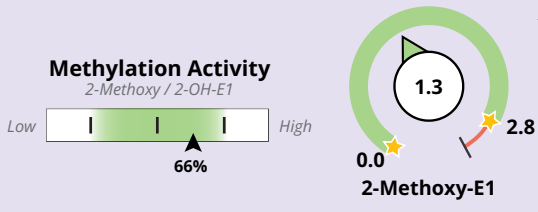
QUINONE (reactive)
 Methylation Detox → COMT Methylation
 Glutathione Detox → COMT Methylation
 If not detoxified, 4-OH-E1 can bind to and damage DNA



Patient Percentages	Expected Percentages
2-OH: 56.3%	60-80% (2-OH)
4-OH: 16.4%	7.5-11% (4-OH)
16-OH: 27.3%	13-30% (16-OH)



Phase 2 Estrogen Metabolism





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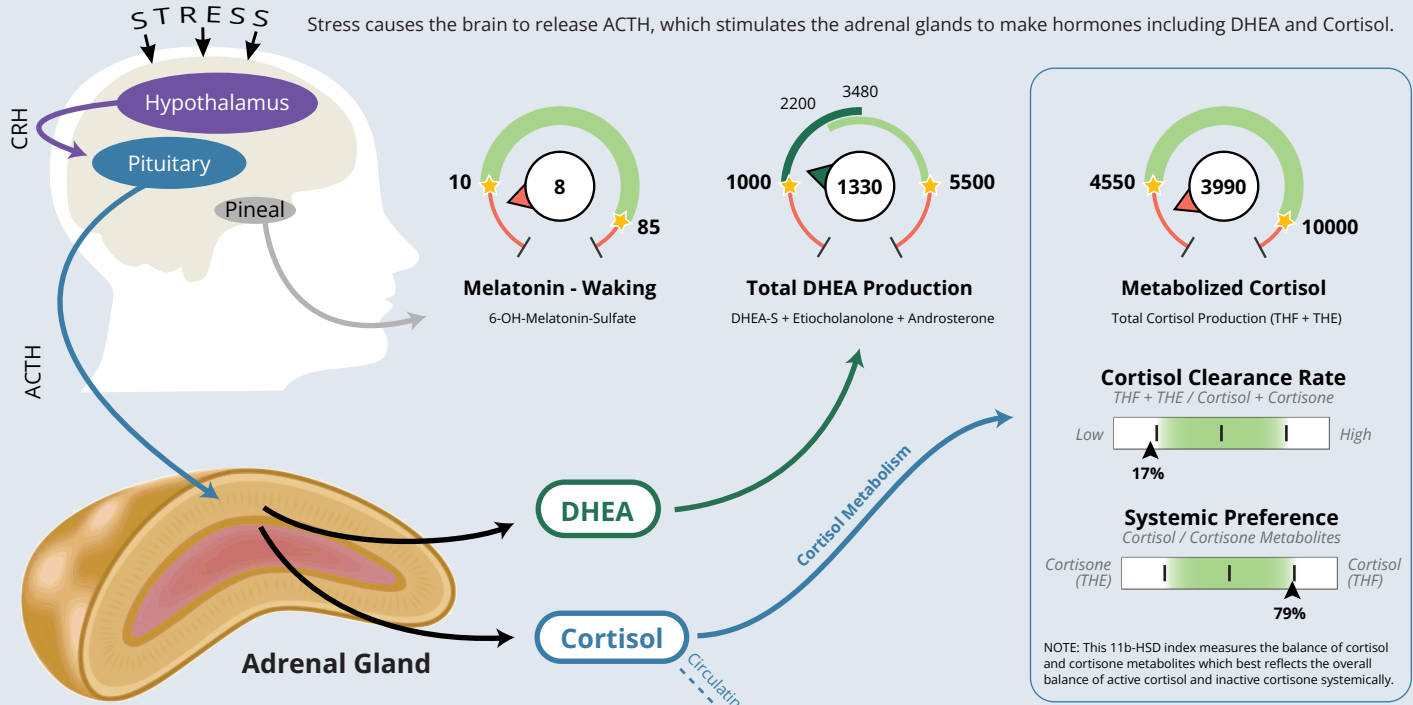
DOB: 1976-01-01
Age: 46
Sex: Male

Ordering Provider:
Precision Analytical

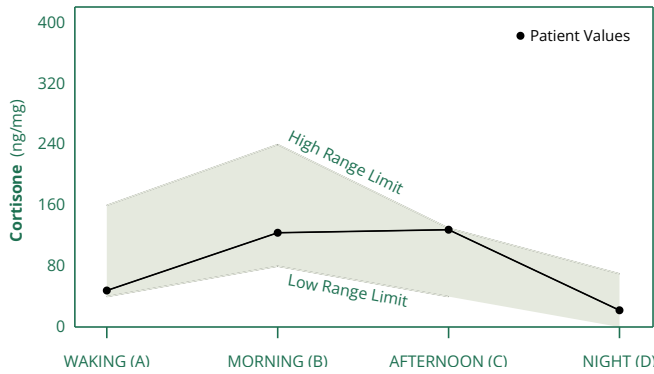
Adrenal Hormones & Metabolites

TEST		RESULT	UNITS	NORMAL RANGE
Daily Free Cortisol and Cortisone (Urine)				
Cortisol A - Waking	Low end of range	21.0	ng/mg	13 - 80
Cortisol B - Morning	Within range	82.0	ng/mg	35 - 180
Cortisol C - Afternoon	Above range	52.0	ng/mg	10 - 45
Cortisol D - Night	Within range	12.0	ng/mg	0 - 20
Cortisone A - Waking	Low end of range	48.0	ng/mg	40 - 160
Cortisone B - Morning	Within range	124.0	ng/mg	80 - 240
Cortisone C - Afternoon	High end of range	128.0	ng/mg	40 - 130
Cortisone D - Night	Within range	22.0	ng/mg	0 - 70
24hr Free Cortisol	Within range	167.0	ng/mg	75 - 300
24hr Free Cortisone	Within range	322.0	ng/mg	220 - 550
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	8.2		8.5 - 17.5

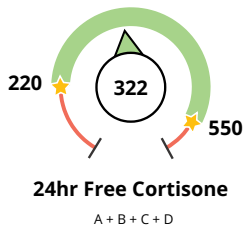
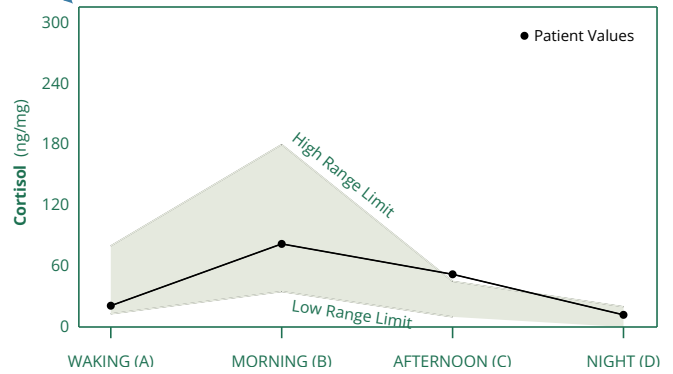
ADRENAL HORMONES & METABOLITES



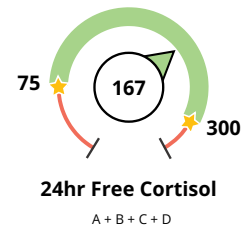
Daily Free Cortisone Pattern



Daily Free Cortisol Pattern



Cortisol and Cortisone interconvert (11b-HSD)





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Sex: Male

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			
Quinolinatate	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