dutchtest® COMPLETE

Ordering Provider:
Test Provider MD

PATIENT INFORMATION

Female Sample Report
123 A Street
Sometown, SC 90266

DOB: 1976-01-01
Age: 49
Sex: Female
Last Menstrual Period: 2025-05-26

Accession # 01093510

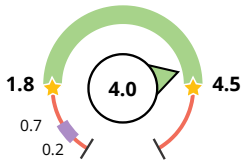
Collection Dates:
2025-06-12 (U3 U4)
2025-06-13 (U1 U2)

Hormone Testing Summary

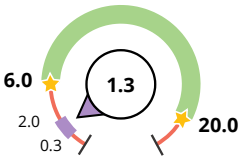
Optimal Luteal Range | Postmenopausal Range | Out of Range | Edge of Range

For an expanded view of results, see pages 2 through 6. For interpretive assistance, see *About Your Results* pages.

ESTROGEN & PROGESTERONE PRODUCTION



Estradiol (E2)



Progesterone (P4)
Serum Equivalent*, ng/mL

*P4 Serum Equivalent (ng/mL) is a calculated value based on urine pregnanediol.

ESTROGEN METABOLISM

2-OH / 16-OH-E1 Balance

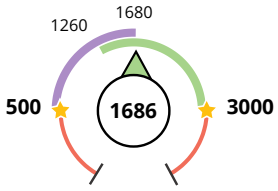
2-OH / 4-OH-E1 Balance

Phase 1 Metabolism

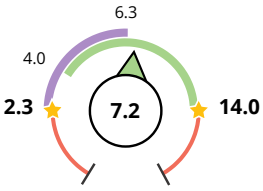
Methylation Activity
2-Methoxy / 2-OH-E1

Phase 2 Methylation

ANDROGEN PRODUCTION

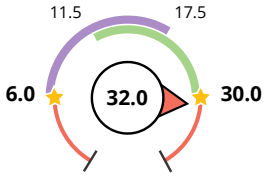


Total DHEA Production
DHEA-S + Etiocholanolone + Androsterone



Testosterone

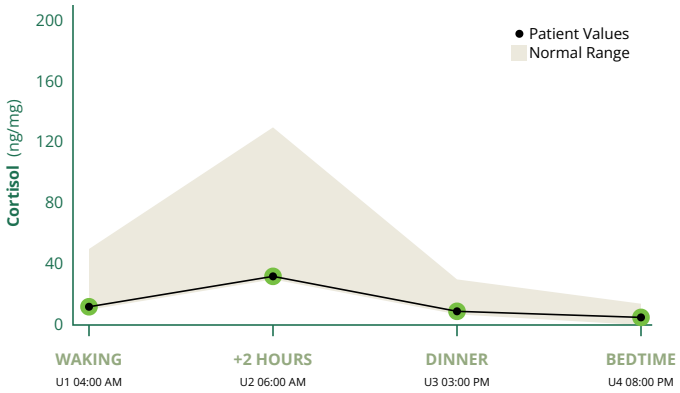
ANDROGEN METABOLISM



5a-Androstanediol
Cellular DHT Production

5a-Metabolism (Androgens)
Androsterone / Etiocholanolone

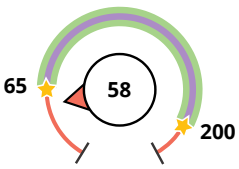
DAILY FREE CORTISOL PATTERN



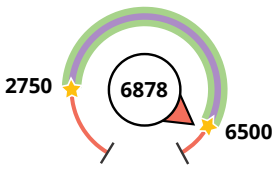
CORTISOL METABOLISM

Cortisol Clearance Rate
THF + THE / Cortisol + Cortisone

Cortisol Metabolism



24 Hour Free Cortisol
Sum of all Values



Metabolized Cortisol
Total Cortisol Production (THF + THE)

Organic Acid Tests (OATs) Suggests the Following Possible Imbalances | see page 6 for details

Watch | Needs Attention

B12 Deficiency | B6 Deficiency | GI Dysbiosis | Neuroinflammation | Melatonin

EXPANDED ESTROGEN, PROGESTERONE, & ANDROGENS

Optimal Luteal Range | Postmenopausal Range | Out of Range | Edge of Range

Androgens

Pregnenolone

1260 1680 500 1686 3000

Total DHEA Production

DHEA-S + Etiocholanolone + Androsterone

60 270 20 16 750

DHEA-S

6.3 4.0 2.3 7.2 14.0

Testosterone

Androstenedione

5b 5a

470 710 200 475 1000

Etiocholanolone

600 830 200 1195 1650

Androsterone

Testosterone

5b 5a

5b-DHT 5a-DHT

30 55 12 43 75

5b-Androstanediol

11.5 17.5 6.0 32.0 30.0

5a-Androstanediol

Cellular DHT Production

5a-Metabolism (Androgens)

Androsterone / Etiocholanolone

Low (5b) — High (5a)

94%

Progesterone

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

Progesterone (P4)

600 100 200 60 2000

b-Pregnanediol

5b 5a

200 49 50 15 740

a-Pregnanediol

5a-Metabolism (P4)

a-Pregnanediol / b-Pregnanediol

Low (5b) — High (5a)

74%

aromatase

aromatase

Primary Estrogens

12 24.0 7.0 1.0 26

Estrone (E1)

17b-HSD

1.8 4.0 0.7 0.2 4.5

Estradiol (E2)

CYP3A4

5 16.0 4.0 0.6 18

Estriol (E3)

CYP1A1 (protective)

CYP1B1

CYP3A4

17b-HSD

Phase 1 Estrogen Metabolism

5.1 3.6 2.0 0.3 13.1

2-OH-E1

0.3 1.2 0.0 1.8

4-OH-E1

0.7 2.8 0.6 0.2 2.6

16-OH-E1

Methylation, Glutathione Detox

QUINONE (reactive)

If not **detoxified**, 4-OH-E1 can bind to and damage DNA

COMT Methylation

Phase 2 Estrogen Metabolism

Methylation Activity

2-Methoxy / 2-OH-E1

Low — High

17%

2.5 1.4 1.4 0.3 6.5

2-Methoxy-E1

2-OH / 16-OH-E1 Balance

16-OH-E1 — 2-OH-E1

11%

2-OH / 4-OH-E1 Balance

4-OH-E1 — 2-OH-E1

4%

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Accession # 01093510

Female Sample Report
123 A Street
Sometown, SC 90266
DOB: 1976-01-01
Age: 49
Sex: Female
Last Menstrual Period:
2025-05-26

Collection Times:

2025-06-13 04:00AM (U1)
2025-06-13 06:00AM (U2)
2025-06-12 03:00PM (U3)
2025-06-12 08:00PM (U4)

Ordering Provider:

Test Provider MD

Sex Hormones & Metabolites

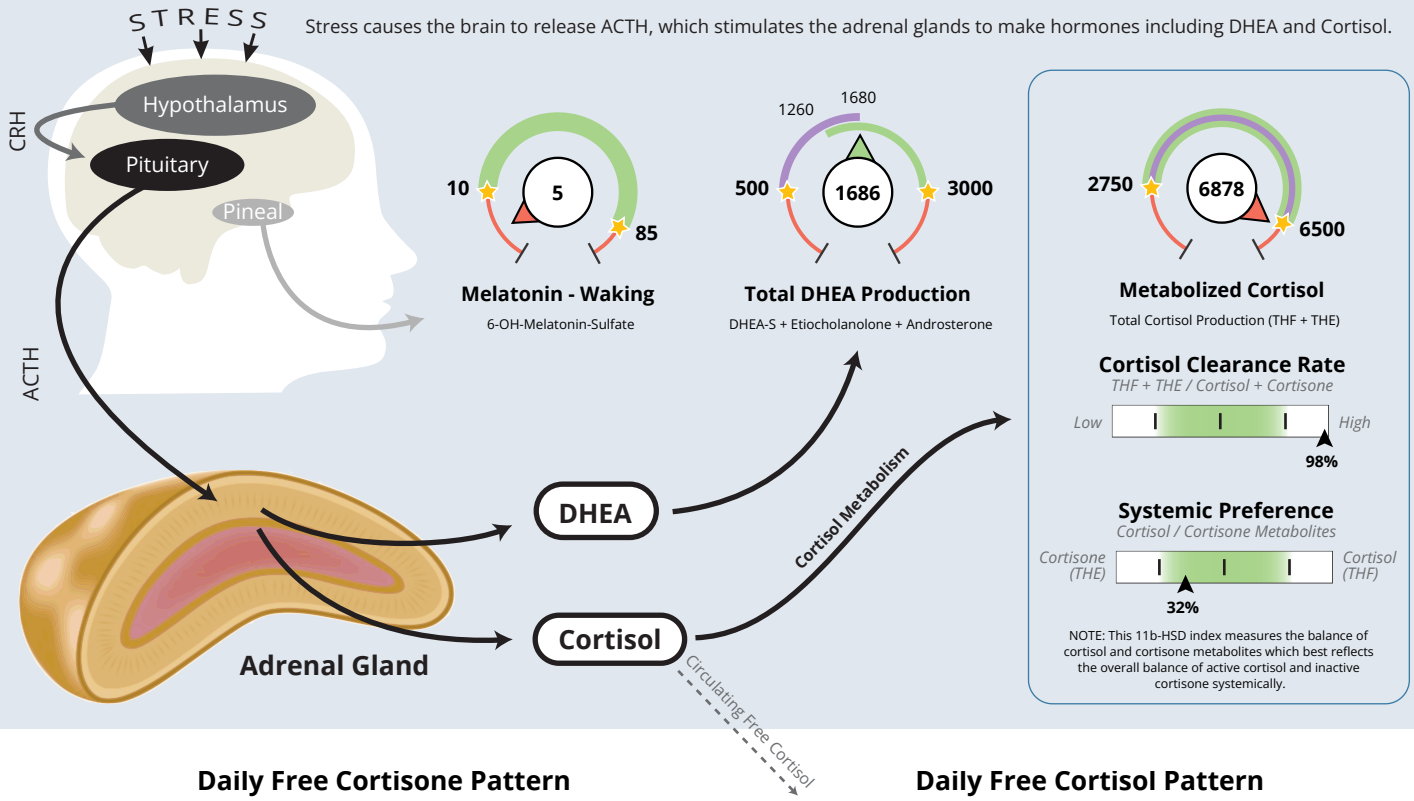
TEST		RESULT	UNITS	LUTEAL*	POSTMENOPAUSAL
Progesterone Metabolites (Urine)					
b-Pregnanediol	Below luteal range	100.0	ng/mg	600 - 2000	60 - 200
a-Pregnanediol	Below luteal range	49.0	ng/mg	200 - 740	15 - 50
Estrogens and Metabolites (Urine)					
Estrone (E1)	High end of luteal range	24.01	ng/mg	12 - 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	
Etiocholanolone	Within range	474.6	ng/mg	200 - 1000	
Testosterone	Within range	7.16	ng/mg	2.3 - 14	
5a-DHT	Within 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.

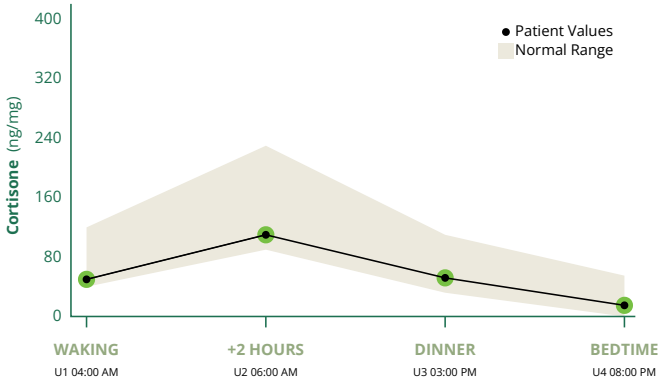
ADDITIONAL NORMAL RANGES	FOLLICULAR	OVULATORY	ON ORAL PG
b-Pregnanediol	100 - 300	100 - 300	2000 - 9000
a-Pregnanediol	25 - 100	25 - 100	580 - 3000
Estrone (E1)	4.0 - 12.0	22 - 68	N/A
Estradiol (E2)	1.0 - 2.0	4.0 - 12.0	N/A

EXPANDED CORTISOL & ADRENAL HORMONES

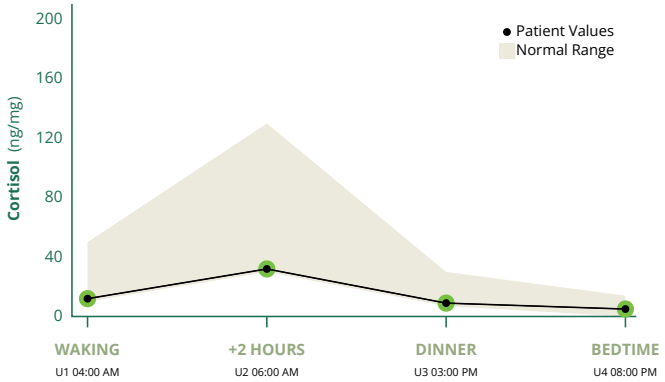
Optimal Luteal Range | Postmenopausal Range | Out of Range | Edge of Range

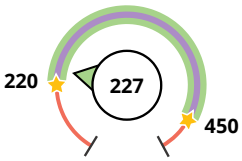


Daily Free Cortisone Pattern



Daily Free Cortisol Pattern

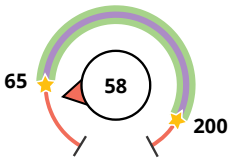




24 Hour Free Cortisone

Sum of all Values

Cortisol and Cortisone interconvert (11b-HSD)



24 Hour Free Cortisol

Sum of all Values

dutchtest® COMPLETE

Accession # 01093510

Female Sample Report
123 A Street
Sometown, SC 90266
DOB: 1976-01-01
Age: 49
Sex: Female
Last Menstrual Period:
2025-05-26

Collection Times:

2025-06-13 04:00AM (U1)
2025-06-13 06:00AM (U2)
2025-06-12 03:00PM (U3)
2025-06-12 08:00PM (U4)

Ordering Provider:

Test Provider MD

Adrenal Hormones & Metabolites

TEST		RESULT	UNITS	NORMAL RANGE
Daily Free Cortisol and Cortisone (Urine)				
Cortisol (U1) - Waking	Low end of range	12.0	ng/mg	10 - 50
Cortisol (U2) - +2 Hours	Low end of range	32.0	ng/mg	30 - 130
Cortisol (U3) - Dinner	Low end of range	9.0	ng/mg	7 - 30
Cortisol (U4) - Bedtime	Within range	5.0	ng/mg	0 - 14
Cortisone (U1) - Waking	Low end of range	50.0	ng/mg	40 - 120
Cortisone (U2) - +2 Hours	Low end of range	110.0	ng/mg	90 - 230
Cortisone (U3) - Dinner	Within range	52.0	ng/mg	32 - 110
Cortisone (U4) - Bedtime	Within range	15.0	ng/mg	0 - 55
24 Hour Free Cortisol (Sum of all Values)	Below range	58.0	ng/mg	65 - 200
24 Hour Free Cortisone (Sum of all Values)	Low end of range	227.0	ng/mg	220 - 450
Creatinine (Urine)				
Creatinine (U1) - Waking	Within range	0.50	mg/ml	0.2 - 2
Creatinine (U2) - +2 Hours	Within range	0.72	mg/ml	0.2 - 2
Creatinine (U3) - Dinner	Within range	0.48	mg/ml	0.2 - 2
Creatinine (U4) - Bedtime	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	24.1		6 - 12.5

Organic Acid Tests (OATs)

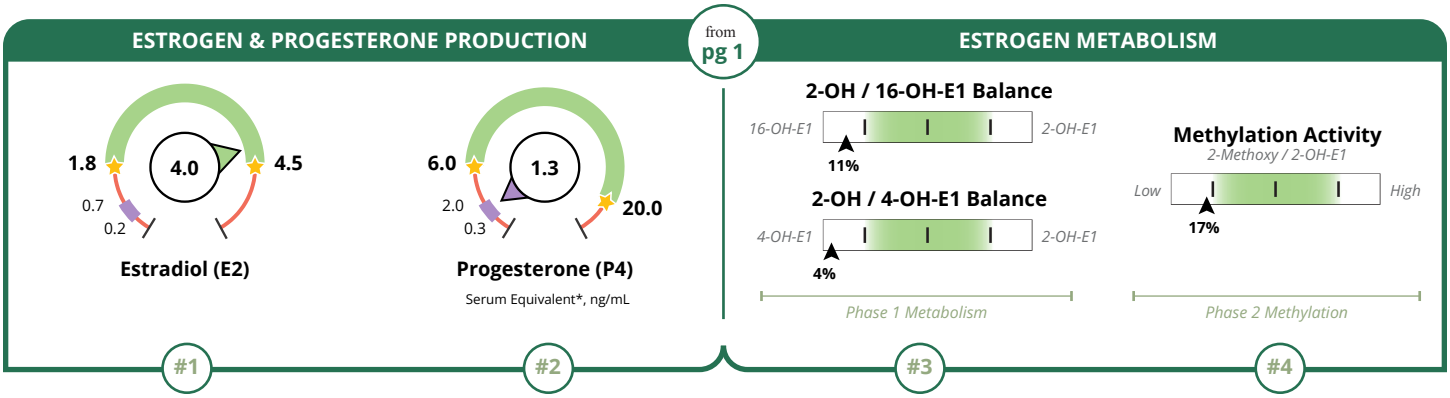
TEST		RESULT	UNITS	NORMAL RANGE
Nutritional Organic Acids (Urine)				
Vitamin B12 Marker - May be deficient if high				
Methylmalonate (MMA)	Above range	4.9	ug/mg	0 - 2.5
Vitamin B6 Markers - May be deficient if high				
Xanthurenate	Above range	1.23	ug/mg	0.12 - 1.2
Kynurenate	Above range	5.4	ug/mg	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 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				
Quinolinate	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

Organic Acid Comments:

- The MMA is above the range. This may indicate vitamin B12 or adenosylcobalamin deficiency. B12 is important for phase 2 methylation (estrogen detox), neurotransmitter synthesis, and other key processes.
- Both the Xanthurenate and Kynurenate are above the range. This may indicate vitamin B6 deficiency. B6 is important for phase 2 methylation (estrogen detox), neurotransmitter synthesis, and other key processes. Tryptophan taken within 72 hours before testing can also raise these markers without indicating a true B6 deficiency.
- The indican is above the range. This can indicate gut dysbiosis. Gut dysbiosis can affect estrogen metabolism, inflammation, and malabsorption of nutrients. Further GI testing may be indicated.
- The quinolinate is above the normal range. This increase may be in response to high cortisol and inflammation, potentially contributing to mood and sleep dysregulation through neuroinflammation. Tryptophan taken within 72 hours before testing can also raise quinolinate in the urine without raising it in circulation.
- The waking urinary 6-OH-Melatonin-Sulfate is low. This reflects low overnight production of melatonin. This may be implicated in poor sleep and insomnia.

About Your Results | Estrogen & Progesterone

The following *About Your Results* sections include key DUTCH report elements from page 1 to aid your interpretation.



Estrogen-related Patient or Sample Comments:

- The patient reports irregular cycles.
- The patient reported collecting samples on Cycle Day 17. Estrogen and progesterone levels would be expected to reflect luteal phase values if the onset of her next menstrual cycle occurred 4-10 days after sample collection.

#1. Assess estrogen levels given the patient's reproductive status

- Estradiol (the most potent estrogen) is **4.00ng/mg**, which is within the optimal luteal range, but toward the higher end. If paired with other elevated estrogen markers, poor estrogen metabolism, or suboptimal progesterone, this may contribute to estrogen excess symptoms.

#2. Assess progesterone levels given the patient's reproductive status

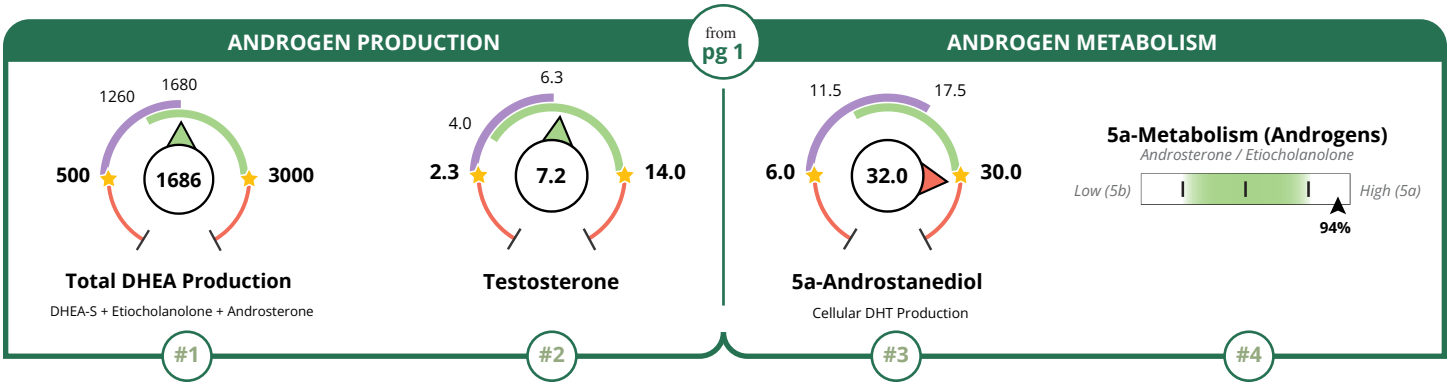
- The progesterone serum equivalent is **1.30 ng/mL**, which is below the optimal luteal range. If the patient ovulated, progesterone is suboptimal. Confirm that the patient's samples were collected in the luteal phase to interpret this result.

#3. Assess 2-OH preference in phase 1 estrogen metabolism

- The 2-OH/16-OH-E1 is **11.0%**, which is below the optimal range. This indicates a preference for the less desirable 16-OH-E1 metabolite compared to the beneficial 2-OH-E1 metabolite. The 16-OH preference may be associated with estrogenic activity.
- The 2-OH/4-OH-E1 is **4.00%**, which is below the optimal range. This indicates a preference for the less desirable 4-OH-E1 metabolite compared to the beneficial 2-OH-E1 metabolite. The 4-OH preference may be associated with oxidative stress.

#4. Assess methylation of reactive 2-OH catechol estrogens

- The methylation activity is **17.0%**, which is in the optimal range, but towards the low end. This may indicate slightly reduced estrogen methylation capacity.



Androgen-related Patient or Sample Comments:

- The patient reports high androgen symptoms.

#1. Assess adrenal androgen levels (Total DHEA)

- The total DHEA production is **1,686 ng/mL**, which is within the optimal premenopausal range.

#2. Assess testosterone levels

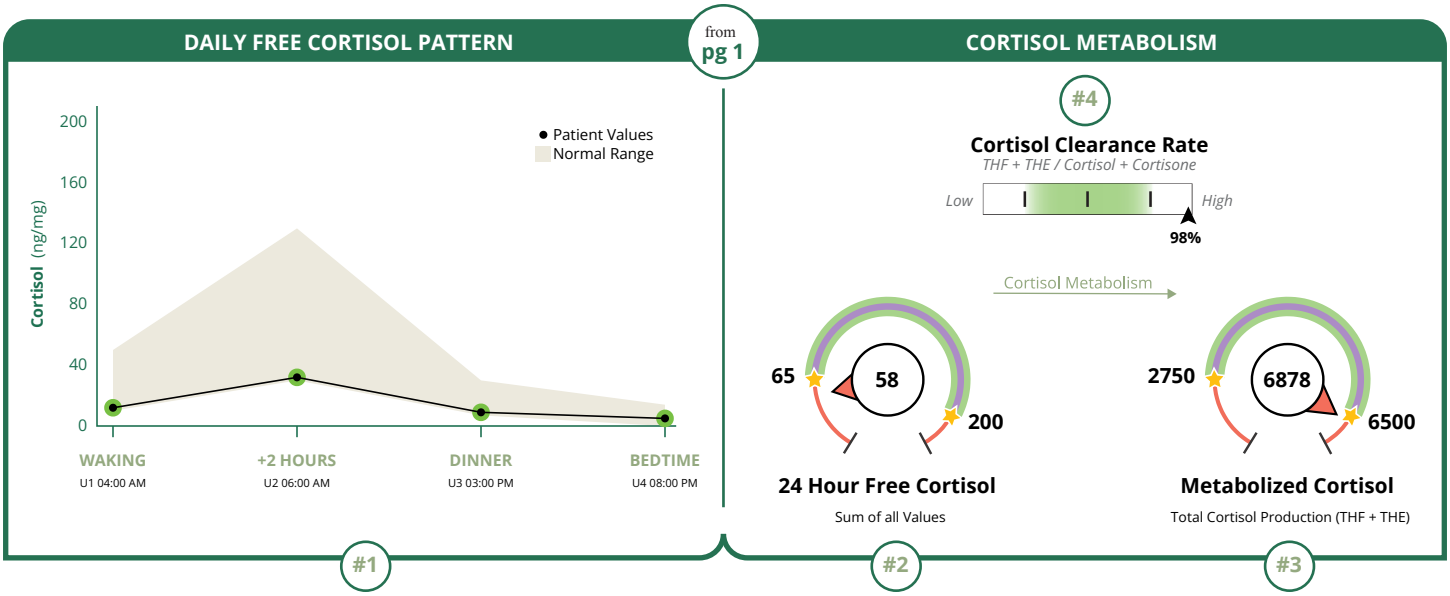
- Testosterone is **7.2 ng/mL**, which is within the optimal premenopausal range.

#3. Assess cellular production of 5a-DHT via 5a-androstanediol

- 5a-Androstanediol is **32.0 ng/mL**, which is above the range for women of any age. 5a-Androstanediol reflects the tissue activity of 5a-DHT (the most potent androgen).

#4. Assess if there is a preference for the more potent alpha metabolism of the androgens

- 5a-Metabolism of androgens is **94.0%**, which is above the range. This indicates a preference for the more androgenic pathway.



Cortisol-related Patient or Sample Comments:

#1. Assess the daily free cortisol pattern

- All points on the Daily Free Cortisol Pattern are within the optimal range. Cortisol levels should follow a rhythm that is higher in the morning and lower at night.

#2. Assess the daily total of free cortisol in circulation (24hr Free Cortisol)

- The 24hr Free Cortisol (the sum of the 4 points on the Daily Free Cortisol Pattern) is **58.0ng/mg**, which is below the optimal range. This indicates low overall cortisol levels.

#3. Assess the total cortisol produced by the adrenal glands (Metabolized Cortisol)

- The Metabolized Cortisol, which reflects the total cortisol output for the day, is **6,878ng/mg**, which is above the optimal range.

#4. Assess the rate of cortisol clearance from the body

- The Cortisol Clearance Rate is **98.0%**, which is above the optimal range. This indicates that cortisol and cortisone are being metabolized at a faster rate than expected. If paired with low free cortisol, this can contribute to low cortisol symptoms.
- The patient reports that they have a BMI between 25 and 30. A higher BMI is associated with a fast cortisol clearance rate.

About Your Results | Advanced Insights

The previous "About Your Results" pages look at core insights for the DUTCH report shown on the Hormone Testing Summary page, all of which are worth considering for most patients. Next, "Advanced Insights" cover additional features within the DUTCH test that require reviewing the pages after the summary page. These concepts are more complex but can be highly relevant for some patients. Review the concepts and look for patient-specific comments, when notable, in bullets.

ESTROGEN & PROGESTERONE

#1. Assess whether E1, E3, or 16-OH-E1 add more insight into overall estrogenic activity

- While E2 is the most potent estrogen, other estrogens - such as estrone (E1), 16-hydroxyestrone (16-OH-E1), and estriol (E3) - also contribute to overall estrogenic activity.

  E1 is less potent than E2 but can still impact total estrogenic load and can be converted to E2 as needed. 16-OH-E1 is weaker than E2 but may exert significant estrogenic effects, depending on the tissue in which it is produced. E3 is a weak estrogen with mild estrogenic effects and may have anti-inflammatory properties.

  Higher levels of these additional estrogens relative to E2 may enhance overall estrogenic activity, while lower levels may result in reduced estrogenic effects.

#2. Assess if there is a preference for alpha metabolism of progesterone

- The slider bar for 5a-metabolism of progesterone metabolites reflects the balance between a-pregnanediol and b-pregnanediol. Most progesterone is typically metabolized to b-pregnanediol, but a-pregnanediol is an active metabolite that can bind to GABA receptors in the central nervous system. A higher result on the 5a-metabolism (P4) slider indicates that available progesterone has a greater potential for impact on GABA receptors.

#3. Assess estrogen clearance through phase 1 and 2

- By looking at the parent estrogens (E1, E2) and their breakdown products (2OH, 4OH, 16OH, and 2MeOHE1), we can see how quickly estrogen is being metabolized. If the parent estrogens are higher than the breakdown products, it means estrogen is clearing more slowly, which increases risk of estrogen excess symptoms. Balanced levels show normal clearance, while lower parent estrogens compared to breakdown products suggest faster clearance, decreasing the risk of estrogen excess symptoms.

#4. Assess whether any of the estrogen-related organic acids are out of range

- Estrogen levels, metabolites, and metabolism patterns can be influenced by nutrient status, oxidative stress, and gut health. Check the OATs page for imbalances in glutathione, B12, B6, gut dybiosis, and oxidative stress markers, which may help identify contributing factors affecting estrogens.

ANDROGENS

#1. Assess if the DHEA-S is relatively lower than the Total DHEA

- DHEA-S is primarily produced in the adrenals through sulfation. Inflammation can inhibit sulfation, lowering DHEA-S levels and diverting DHEA metabolism toward 5a- and 5b-reductase pathways, resulting in higher etiocholanolone (5b-metabolite) and Androsterone (5a-metabolite) levels relative to DHEA-S. Review the patient's results to assess if this pattern is present.

#2. Assess the androgen pattern to determine if urine testosterone may not accurately reflect systemic levels (UGT2B17 deletion)

- This advanced topic is only relevant if the patient has low testosterone on the DUTCH Test.

  A specific enzyme called UGT2B17, is primarily responsible for the process (glucuronidation) of how testosterone, 5a-DHT, and 5b-Androstanediol are excreted in the urine. Some people have a genetic variation affecting this enzyme which impacts how the body gets rid of those metabolites in urine. This can mean urine tests might show low testosterone levels when actual testosterone levels in the body are normal.

  This variation does not mean anything is wrong, it just makes urine results less reliable in some people and serum testing (checking free and total testosterone) should be considered prior to initiating treatment if low testosterone, 5a-DHT, or 5b-androstanediol results are noted on a urinary test. It does not affect epi-testosterone, 5a-androstanediol, or other androgens, as those are processed (glucuronidated) by different enzymes.

#3. While 5a-androstanediol best represents cellular 5a-DHT production, assess if 5a-DHT offers additional insight into androgenic activity

- 5a-DHT is testosterone's active metabolite and is three times more potent than testosterone. If elevated it may contribute to androgen excess syptoms. Research shows 5a-Androstanediol may be a better marker of 5a-DHT tissue activity, but the 5a-DHT result may provide additional insight. Review the 5a-DHT result in context of other androgens and androgenic symptoms for a deeper understanding of the androgen results.

#4. Assess whether any of the androgen-related organic acids are out of range

- Androgen levels can be influenced by inflammation and nutrient status. Check the OATs page for imbalances in B6 and neuroinflammation markers, which may help identify contributing factors affecting androgens.

#4. Assess whether any of the androgen-related organic acids are out of range

ADRENAL

#1. Assess if cortisone (inactive) adds more insight to the free cortisol assessment

- Cortisol is the active adrenal glucocorticoid, while cortisone is an inactive "storage" form. In the kidney, a significant amount of cortisol is converted to cortisone before excretion into the urine. Therefore, urinary cortisone should be considered a reflection or "shadow" of systemic cortisol. The degree to which this happens in an individual may vary. If free cortisone is significantly higher than free cortisol it may indicate free cortisol levels were higher in circulation (serum) than the urinary free cortisol levels may imply. If free cortisone is lower than free cortisol this may indicate free cortisol levels were not as high in circulation (serum) as urinary free cortisol imply.

#2. Assess if there is a whole-body preference for (inactive) cortisone or (active) cortisol

- The Systemic Preference slider reflects the balance between cortisol (THF) and cortisone (THE) metabolites and is influenced by systemic cortisol needs. As these metabolites are processed through the liver, the body may shift to cortisol (THF) in response to acute stressors (e.g., immune activation or infection), or toward cortisone (THE) with chronic stress (e.g., long-term inflammation or illness). Review the patient's result to determine if they are out of range.

  A rightward shift (toward cortisol) paired with elevated free cortisol, may contribute to elevated tissue cortisol. If paired with low free cortisol, it may be helping preserve active cortisol in the systemic tissues.

  A leftward shift (toward cortisone) paired with elevated free cortisol may be protective, helping reduce tissue exposure. If paired with low free cortisol it may worsen low cortisol symptoms by inactivating available cortisol.

#3. Assess for anabolic-catabolic balance

- Androgens support tissue growth and repair, while cortisol promotes tissue breakdown. When androgens are significantly higher than cortisol, it may suggest an anabolic state (favoring tissue building and repair). When androgens are significantly lower than cortisol, it may suggest a catabolic state (favoring tissue breakdown).

#4. Assess whether any of the cortisol-related organic acids are out of range

- Cortisol can be impacted by inflammation, nutrient status, and sleep. Check the OATs page for imbalances in B12, B6, melatonin, and neuroinflammation markers, which may help identify contributing factors affecting cortisol.

Reference Range Percentiles

Reference ranges are developed by testing thousands of healthy individuals, while excluding results from outliers or those on impactful medications. A percentile approach is applied, as is done with most labs. Classic reference ranges use the 95th percentile as the upper end of range and the 5th percentile as the lower end of range. Our DUTCH ranges uses the percentiles found in the table below. We feel these ranges reflect the more optimal range sought in functional medicine practices. The table below shows the percentiles used for the reference range of each analyte on the DUTCH report:

Female Reference Ranges (Updated 05.20.2025)

	Low%	High%	Low	High		Low%	High%	Low	High
b-Pregnanediol	20%	90%	600	2000	Cortisol A (waking)	20%	90%	10	50
a-Pregnanediol	20%	90%	200	740	Cortisol B (morning)	20%	90%	30	130
Estrone (E1)	20%	80%	12	26	Cortisol C (~5pm)	20%	90%	7	30
Estradiol (E2)	20%	80%	1.8	4.5	Cortisol D (bed)	0	90%	0	14
Estriol (E3)	20%	80%	5	18	Cortisone A (waking)	20%	90%	40	120
2-OH-E1	20%	80%	5.1	13.1	Cortisone B (morning)	20%	90%	90	230
4-OH-E1	0	80%	0	1.8	Cortisone C (~5pm)	20%	90%	32	110
16-OH-E1	20%	80%	0.7	2.6	Cortisone D (bed)	0	90%	0	55
2-Methoxy-E1	20%	80%	2.5	6.5	Cortisol Clearance Rate (CCR)	20%	80%	6	12.5
2-OH-E2	0	80%	0	3.1	Melatonin (6-OHMS)	20%	90%	10	85
4-OH-E2	0	80%	0	0.52	8-OHdG	0	90%	0	5.2
2-16-ratio	20%	80%	2.69	11.83	Methylmalonate	0	90%	0	2.5
2-4-ratio	20%	80%	5.4	12.62	Xanthurenate	0	90%	0.12	1.2
2Me-2OH-ratio	20%	80%	0.39	0.67	Kynurenate	0	90%	0.8	4.5
DHEA-S	20%	90%	20	750	b-Hydroxyisovalerate	0	90%	0	12.5
Androsterone	20%	80%	200	1650	Pyroglutamate	10%	90%	28	58
Etiocholanolone	20%	80%	200	1000	Indican	0	90%	0	100
Testosterone	20%	80%	2.3	14	Homovanillate	10%	95%	3	11
5a-DHT	0	80%	0	6.6	Vanilmandelate	10%	95%	2.2	5.5
5a-Androstanediol	20%	80%	6	30	Quinolinate	0	90%	0	9.6
5b-Androstanediol	20%	80%	12	75	**Calculated Values**				
Epi-Testosterone	20%	80%	2.3	14	Total DHEA Production	20%	80%	500	3000
a-THF	20%	90%	75	370	Total Estrogens	20%	80%	35	70
b-THF	20%	90%	1050	2500	Metabolized Cortisol	20%	90%	2750	6500
b-THE	20%	90%	1550	3800	24hr Free Cortisol	20%	90%	65	200
					24hr Free Cortisone	20%	90%	220	450

% = population percentile: Example - a high limit of 90% means results higher than 90% of the women tested for the reference range will be designated as "high."