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PATIENT: XXXXXXXXXXXXXXXXXXX			TEST REF: TST-NL-XXXXX
TEST NUMBER: T-NL-XXXXXX	COLLECTED: 2026-XX-XX		PRACTITIONER: XXXXXXXXXXXXXXXXXXX
GENDER: XXXXX			XXXXXXXXXXXXXXXXX
AGE: XX			

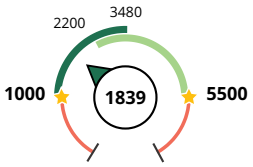
TEST NAME: DUTCH PLUS MALE

Hormone Testing Summary

Normal, Age 18 - 40 (Androgens) | Age 41 - 60+ (Androgens) | Out of Range | Edge of Range

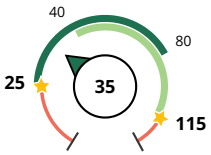
For an expanded view of results, see pages 2 through 6. For interpretive support, see *About Your Results* pages.

ANDROGEN PRODUCTION



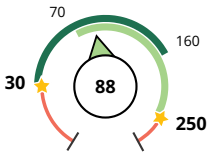
Total DHEA Production

DHEA-S + Etiocholanolone + Androsterone



Testosterone

ANDROGEN METABOLISM

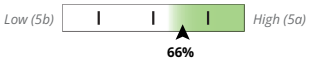


5a-Androstanediol

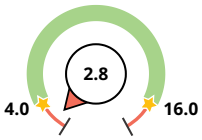
Cellular DHT Production

5a-Metabolism (Androgens)

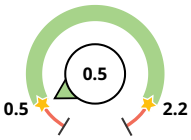
Androsterone / Etiocholanolone



ESTROGEN PRODUCTION



Estrone (E1)

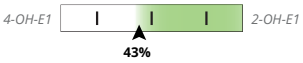


Estradiol (E2)

ESTROGEN METABOLISM

2-OH / 16-OH-E1 Balance

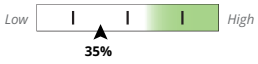
2-OH / 4-OH-E1 Balance



Phase 1 Metabolism

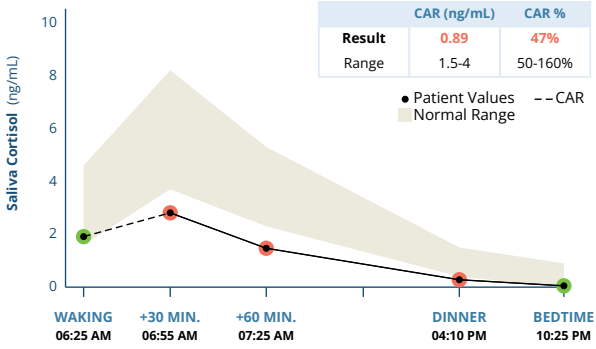
Methylation Activity

2-Methoxy / 2-OH-E1



Phase 2 Methylation

FREE CORTISOL with CORTISOL AWAKENING RESPONSE (CAR)



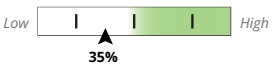
	CAR (ng/mL)	CAR %
Result	0.89	47%
Range	1.5-4	50-160%

● Patient Values – – CAR
Normal Range

CORTISOL METABOLISM

Cortisol Clearance Rate

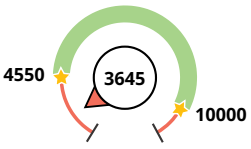
THF + THE / Cortisol + Cortisone



Cortisol Metabolism

Saliva Cortisol Total

Sum of S1 - 5



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

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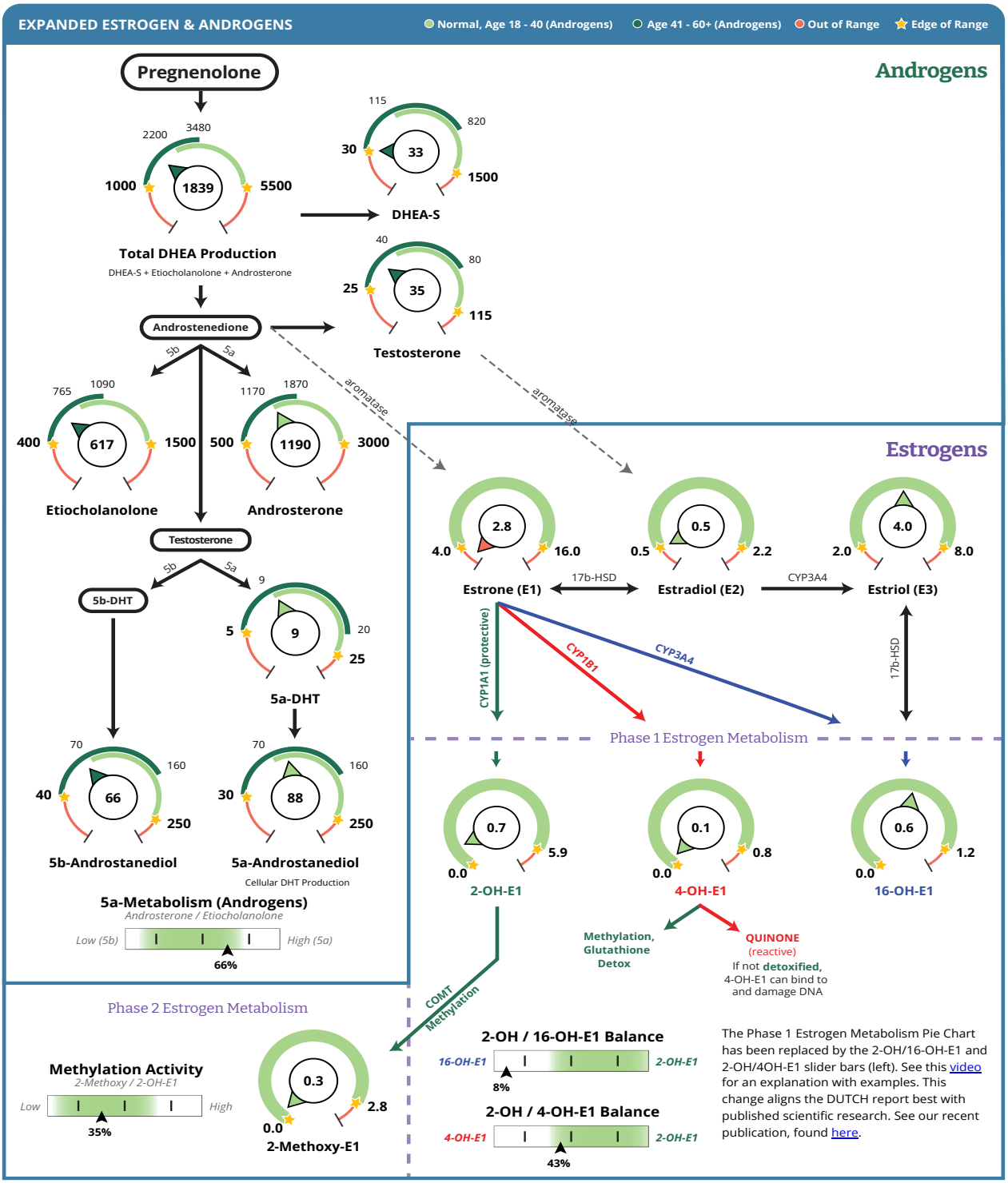
TEST NUMBER: T-NL-XXXXXX	COLLECTED: 2026-XX-XX		PRACTITIONER: XXXXXXXXXXXXXXXXXXX
GENDER: XXXXX			XXXXXXXXXXXXXXXXX
AGE: XX			

TEST NAME: DUTCH PLUS MALE



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GENDER: XXXXX
AGE: XX
COLLECTED: 2026-XX-XX
PRACTITIONER: XXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXX

TEST NAME: DUTCH PLUS MALE

Sex Hormones & Metabolites

TEST		RESULT	UNITS	NORMAL RANGE
Progesterone Metabolites (Urine)				
b-Pregnanediol	Low end of range	85.7	ng/mg	75 - 400
a-Pregnanediol	Low end of range	27.8	ng/mg	20 - 130
Estrogens and Metabolites (Urine)				
Estrone (E1)	Below range	2.83	ng/mg	4 - 16
Estradiol (E2)	Low end of range	0.50	ng/mg	0.5 - 2.2
Estriol (E3)	Within range	4.0	ng/mg	2 - 8
2-OH-E1	Within range	0.68	ng/mg	0 - 5.9
4-OH-E1	Within range	0.08	ng/mg	0 - 0.8
16-OH-E1	Within range	0.57	ng/mg	0 - 1.2
2-Methoxy-E1	Within range	0.32	ng/mg	0 - 2.8
2-OH-E2	Within range	0.06	ng/mg	0 - 1.2
4-OH-E2	Within range	0.02	ng/mg	0 - 0.25
Total Estrogen	Below range	9.1	ng/mg	10 - 34
Metabolite Ratios (Urine)				
2-OH / 16-OH-E1 Balance	Below range	1.19	ratio	2.85 - 9.88
2-OH / 4-OH-E1 Balance	Within range	8.50	ratio	6.44 - 12.6
2-Methoxy / 2-OH Balance	Within range	0.47	ratio	0.4 - 0.7
Androgens and Metabolites (Urine)				
DHEA-S	Within range	32.5	ng/mg	30 - 1500
Androsterone	Within range	1189.7	ng/mg	500 - 3000
Etiocholanolone	Within range	617.1	ng/mg	400 - 1500
Testosterone	Within range	34.55	ng/mg	25 - 115
5a-DHT	Within range	9.3	ng/mg	5 - 25
5a-Androstanediol	Within range	88.1	ng/mg	30 - 250
5b-Androstanediol	Within range	65.7	ng/mg	40 - 250
Epi-Testosterone	Within range	70.7	ng/mg	25 - 115

"Normal range" shown above refers to the overall range across all ranges, which lands between the stars on the dials. Age-dependent ranges are now included on the DUTCH dials on page 2.

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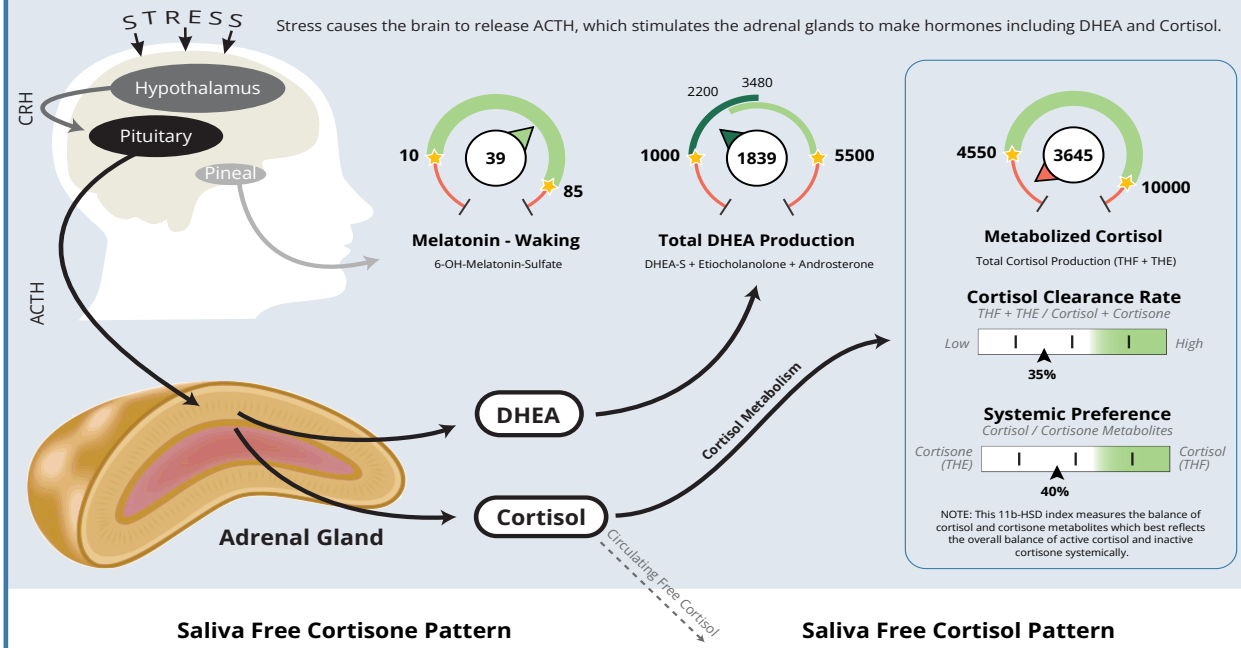
GENDER: XXXXX
AGE: XX
COLLECTED: 2026-XX-XX
PRACTITIONER: XXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXX

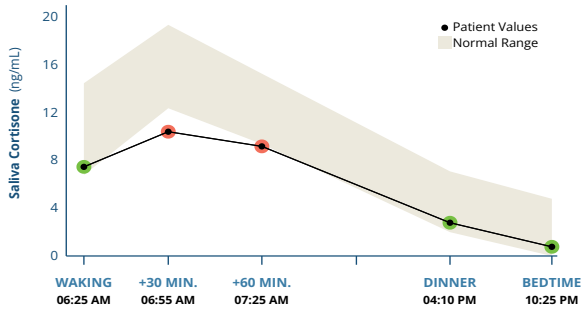
TEST NAME: DUTCH PLUS MALE

EXPANDED CORTISOL & ADRENAL HORMONES

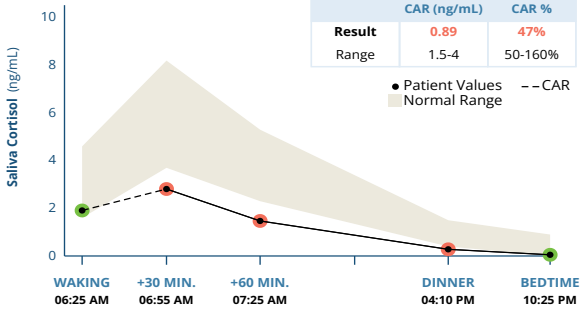
Normal, Age 18 - 40 (Androgens) | Age 41 - 60+ (Androgens) | Out of Range | Edge of Range



Saliva Free Cortisone Pattern



Saliva Free Cortisol Pattern



Saliva Cortisone Total

Sum of S1 - 5

Cortisol and Cortisone interconvert (11b-HSD)

Saliva Cortisol Total

Sum of S1 - 5

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TEST NUMBER: T-NL-XXXXXX
GENDER: XXXXX
AGE: XX
COLLECTED: 2026-XX-XX
PRACTITIONER:
XXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXX

TEST NAME: DUTCH PLUS MALE

Adrenal Hormones & Metabolites

TEST		RESULT	UNITS	NORMAL RANGE
Free Cortisol and Cortisone (Saliva)				
Cortisol Awakening Response (CAR)	Below range	0.89	ng/mL	1.5 - 4
Cortisol (S1) - Waking	Low end of range	1.91	ng/mL	1.6 - 4.6
Cortisol (S2) - +30 Min.	Below range	2.81	ng/mL	3.7 - 8.2
Cortisol (S3) - +60 Min.	Below range	1.47	ng/mL	2.3 - 5.3
Cortisol (S4) - Dinner	Below range	0.28	ng/mL	0.4 - 1.5
Cortisol (S5) - Bedtime	Within range	0.05	ng/mL	0 - 0.9
Cortisone (S1) - Waking	Low end of range	7.48	ng/mL	6.8 - 14.5
Cortisone (S2) - +30 Min.	Below range	10.43	ng/mL	12.4 - 19.4
Cortisone (S3) - +60 Min.	Below range	9.20	ng/mL	9.4 - 15.3
Cortisone (S4) - Dinner	Low end of range	2.79	ng/mL	2 - 7.1
Cortisone (S5) - Bedtime	Within range	0.77	ng/mL	0 - 4.8
Saliva Cortisol Total (S1 - 5)	Below range	6.52	ng/mL	9.6 - 19.3
Saliva Cortisone Total (S1 - 5)	Below range	30.68	ng/mL	36 - 55
Creatinine (Urine)				
Creatinine (U1) - Waking	Within range	1.39	mg/ml	0.3 - 3
Creatinine (U2) - +2 Hours	Within range	1.85	mg/ml	0.3 - 3
Creatinine (U3) - Dinner	Within range	1.46	mg/ml	0.3 - 3
Creatinine (U4) - Bedtime	Within range	1.69	mg/ml	0.3 - 3
Cortisol Metabolites and DHEA-S (Urine)				
a-Tetrahydrocortisol (a-THF)	Low end of range	195.5	ng/mg	175 - 700
b-Tetrahydrocortisol (b-THF)	Below range	1414.8	ng/mg	1750 - 4000
b-Tetrahydrocortisone (b-THE)	Below range	2034.5	ng/mg	2350 - 5800
Metabolized Cortisol (THF + THE)	Below range	3645.0	ng/mg	4550 - 10000
DHEA-S	Within range	32.5	ng/mg	30 - 1500
Cortisol Clearance Rate (CCR)	Within range	98.0		80 - 160

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COLLECTED: 2026-XX-XX
TEST REF: TST-NL-XXXXX
PRACTITIONER:
XXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXX

TEST NAME: DUTCH PLUS MALE

Organic Acid Tests (OATs)

TEST		RESULT	UNITS	NORMAL RANGE
Nutritional Organic Acids (Urine)				
Vitamin B12 Marker - May be deficient if high				
Methylmalonate (MMA)	High end of range	3.2	ug/mg	0 - 3.5
Vitamin B6 Markers - May be deficient if high				
Xanthurenate	Within range	0.66	ug/mg	0.2 - 1.9
Kynurenate	Within range	3.4	ug/mg	1 - 6.6
Biotin Marker - May be deficient if high				
b-Hydroxyisovalerate	Within range	8.6	ug/mg	0 - 18
Glutathione Marker - May be deficient if high				
Pyroglutamate	Within range	63.0	ug/mg	38 - 83
Gut Marker - Potential gut putrefaction or dysbiosis if high				
Indican	Within range	59.3	ug/mg	0 - 131
Neuro-Related Markers (Urine)				
Dopamine Metabolite				
Homovanillate (HVA)	Within range	9.4	ug/mg	4 - 16
Norepinephrine/Epinephrine Metabolite				
Vanilmandelate (VMA)	Within range	4.5	ug/mg	2.5 - 7.5
Neuroinflammation Marker				
Quinolinate	Within range	5.9	ug/mg	0 - 12.5
Additional Markers (Urine)				
Melatonin - Waking				
6-OH-Melatonin-Sulfate	Within range	38.6	ng/mg	10 - 85
Oxidative Stress / DNA Damage				
8-Hydroxy-2-deoxyguanosine (8-OHdG)	Within range	3.1	ng/mg	0 - 8.8

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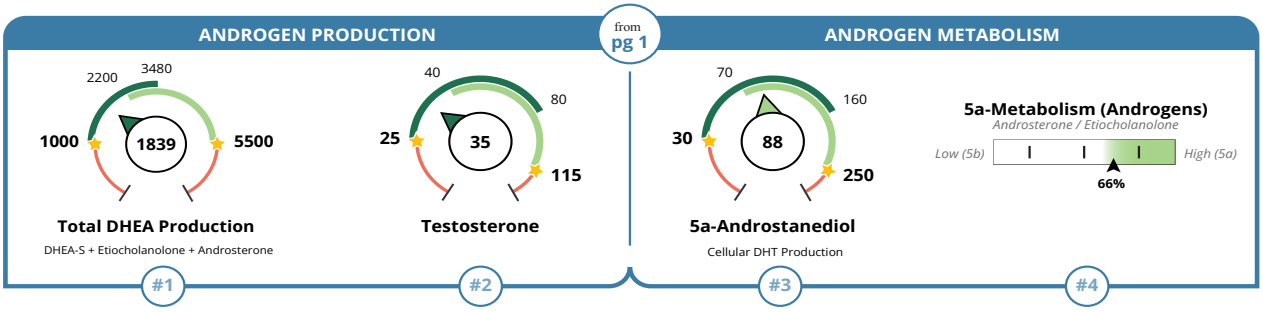
TEST NAME: DUTCH PLUS MALE

About Your Results | Androgens

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



Androgen-related Patient or Sample Comments:

- The patient reports significant symptoms of androgen deficiency.

#1. Assess adrenal androgen levels (Total DHEA). More information is available here.

- The total DHEA production is **1,839 ng/mg**, which is within the range for men who are 41 and older, but towards the lower end of the overall range. If paired with low testosterone or low 5a-androstanediol, this may contribute to a low androgen picture.

#2. Assess testosterone levels. More information is available here.

- Testosterone is **34.5 ng/mg**, which is within the optimal range for men who are 41 and older, but on the lower end. If paired with low 5a-androstanediol, this may contribute to low androgen symptoms.
- When testosterone is low and epi-testosterone is higher, urine testosterone may underestimate serum levels. For more details, see advanced insights comments (androgens #2) or this video.

#3. Assess cellular production of 5a-DHT via 5a-androstanediol. More information is available here.

- 5a-Androstanediol is **88.1 ng/mg**, which is within optimal range for men 41 and older. 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. More information is available here.

- 5a-Metabolism of androgens is higher than **66.0%** of the population, which is within the range. This indicates balanced metabolism of androgens.

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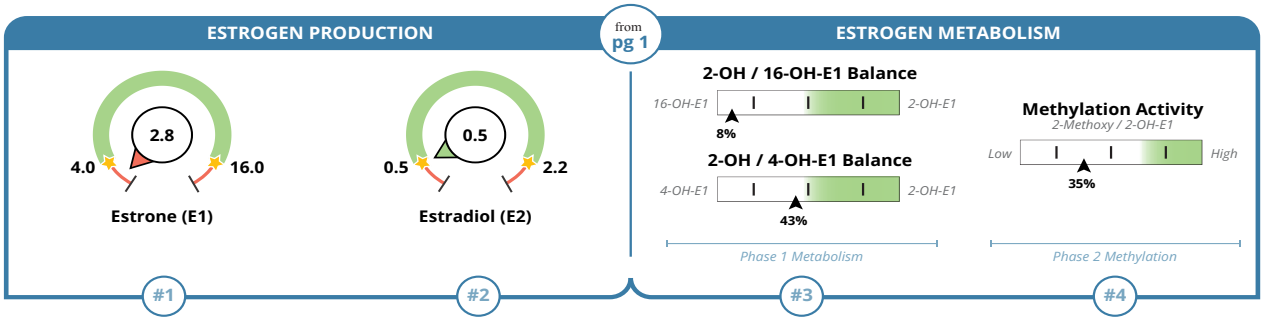
TEST NAME: DUTCH PLUS MALE

About Your Results | Estrogen



Estrogen-related Patient or Sample Comments:

- The patient reported symptoms of excess estrogen.

#1. Assess estrogen levels. More information is available here.

- The estrone (E1) is **2.83 ng/mg,** which is below the optimal range. E1 is the most abundant estrogen but is significantly less potent then estradiol (E2). If E2 is also low, this may contibute to low estrogen symptoms.
- Estradiol (E2) is **0.50 ng/mg**, which is within the optimal range. E2 is the most potent estrogen and its levels are often related to symptoms.

#2. Assess the conversion of testosterone to estradiol (via aromatase). More information is available here.

- In males, E2 levels come from conversion of circulating testosterone via the aromatase enzyme. Reviewing the E2 level can give insight into circulating testosterone and aromatase activity. The strongest influence on aromatase activity is body fat percentage.

#3. Assess 2-OH preference in phase 1 estrogen metabolism. More information is available here.

- The 2-OH/16-OH-E1 is higher than only **8.0%** of the population, which is below the optimal range. This indicates a preference for the estrogenic 16-OH-E1 metabolite compared to the beneficial 2-OH-E1 metabolite. The 16-OH preference may be associated with estrogenic activity and high estrogen symptoms.
- The 2-OH/4-OH-E1 is higher than **43.0%** of the population, which is within the optimal range. This indicates a balance between the beneficial 2-OH-E1 metabolite and the potentially genotoxic (DNA damaging) 4-OH-E1 metabolite.

#4. Assess methylation of 2-OH catechol estrogens. More information is available here.

- The methylation activity is higher than **35.0%** of the population, which is within the optimal range. This indicates optimal estrogen methylation, which is beneficial for efficient estrogen detoxification.

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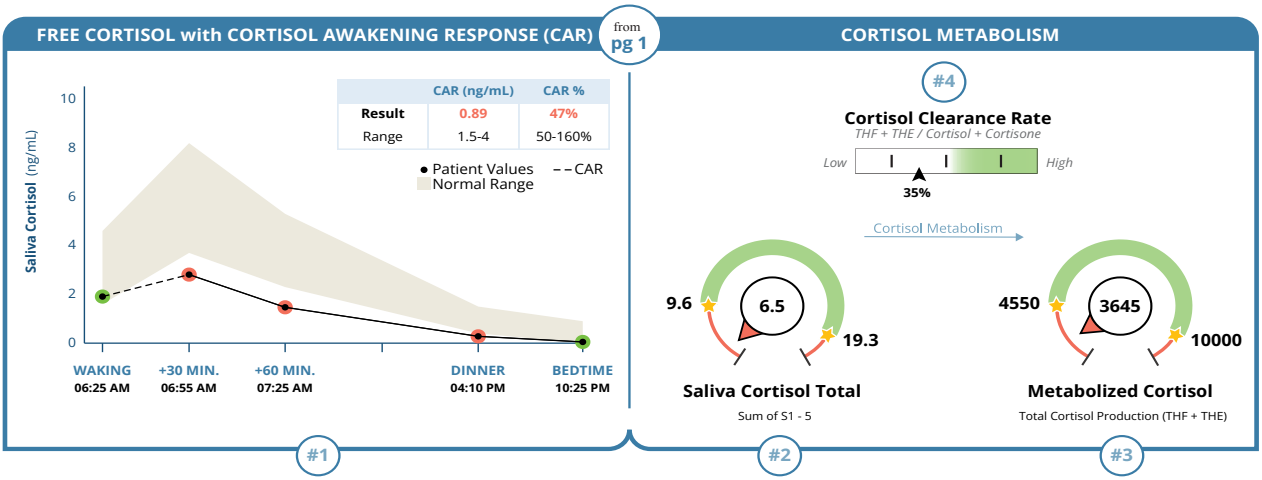
TEST NAME: DUTCH PLUS MALE

About Your Results | Cortisol



Cortisol-related Patient or Sample Comments:

- The patient reported significant fatigue in both the AM and PM.

#1. Assess the daily free cortisol pattern including the CAR. More information is available here and here.

- One or more points on the Saliva Free Cortisol Pattern are out of the optimal range. Note the time of day and whether out-of-range results are low or high at each point.
- The CAR is **47.0%**, which is below the optimal range. A low CAR may indicate chronic stress or sleep issues. Review the morning sample times carefully. The first two samples of the day are used to calculate the CAR and should be taken immediately after waking and 30 minutes after waking.

#2. Assess the daily total (sum of S1-S5) of free cortisol in circulation. More information is available here.

- The Saliva Cortisol Total is **6.5 ng/mL**, which is below the optimal range. This indicates low overall cortisol levels. Review the Saliva Free Cortisol Pattern and CAR results carefully. The 30-minute point is usually the highest cortisol point of the day. If the CAR and the 30 minute point are low, this may lower the Saliva Cortisol Total.

#3. Assess the total cortisol produced by the adrenal glands (Metabolized Cortisol.) More information is available here.

- The Metabolized Cortisol, which reflects the total cortisol output for the day, is **3,645 ng/mg**, which is below the optimal range.

#4. Assess the rate of cortisol clearance from the body. More information is available here.

- The Cortisol Clearance Rate is higher than **35.0%** of the population, which is within the optimal range. This indicates that cortisol and cortisone are being metabolized at a normal rate.

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TEST NAME: DUTCH PLUS MALE

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.

ANDROGENS

#1. Assess if the DHEA-S is relatively lower than the Total DHEA. More information is available here.

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). More information is available here.

- This advanced topic is usually only relevant if the patient has low testosterone on the DUTCH Test and may be relevant in this case. For information on this topic, see this video.

  The male gonads produce most of the body's testosterone as well as epi-testosterone (see page 3), an inactive metabolite. A specific enzyme called UGT2B17, is primarily responsible for the process (glucuronidation) of how testosterone, but not epi-testosterone is 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.

  If this variant enzyme is present, it 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 of low testosterone. 5a-DHT and 5b-androstanediol are also excreted in the urine by the same enzyme/process as testosterone, so they may also be low. This phenomenon does not affect epi-testosterone or 5a-androstanediol so they may be particularly helpful in these cases and best reflect gonadal androgen levels in some cases.

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

5a-DHT is testosterone's active metabolite and is three times more potent than testosterone. If elevated it may contribute to androgen excess symptoms. 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. More information is available here.

Androgen levels can be influenced by sleep and oxidative stress. Imbalances in glutathione, melatonin, and oxidative stress markers, if present, will be commented on here. This may help identify contributing factors affecting androgen markers.

ESTROGEN & PROGESTERONE

#1. Assess whether E1, E3, or Total Estrogen levels add more insight into overall estrogenic activity.

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While E2 is the most potent estrogen, other estrogens such as estrone (E1), also contribute to overall estrogenic activity. Additionally, examining Total Estrogens (listed on the Sex Hormones & Metabolites page) can provide insight into overall estrogen production, which may not be fully reflected in the E2 result alone.

E1 is 10% as potent as E2 but is typically more abundant. This makes it a significant contributor to estrogenic symptoms (high or low). While all estrogens are potent immune stimulators, E1 may promote more inflammatory cytokine production than other estrogens. In cases where E1 is significantly different from E2, a note will be here describing the potential impact.

E3 is a weak estrogen that may have anti-inflammatory properties. For those using E3 therapy, since the route of administration can influence how the test result is interpreted, notes on E3 supplements (such as creams or pills) will be shown here.

The Total Estrogen level should be viewed secondarily to the most potent estrogen levels like E1 and E2, which typically match the patient presentation best. For example, Total Estrogen can be high with robust, healthy estrogen metabolism. Therefore, its levels do not always indicate a cause for high or low estrogen-related symptoms. If out of range, the Total Estrogen level will be noted here.

- The Total Estrogen result is 9.1 ng/mg, which is below the optimal range. This indicates low estrogen production, typically through peripheral conversion of circulating androgens, which may also be low. Review carefully for estrogen metabolism and reported low estrogen symptoms. Some estrogens included in this result are more potent and some are weak.

#2. Assess progesterone production. More information is available here.

In males, progesterone metabolites measured in urine are primarily of adrenal origin. B-pregnanediol is the best marker of total progesterone. High b-pregnanediol may be associated with increased stress or inflammation. Low b-pregnanediol may accompany reduced adrenal cortisol output, although the clinical significance of low progesterone in men is not well understood.

#3. Assess estrogen clearance through phase 1 and 2. More information is available here.

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.

- The phase 1 estrogen metabolites levels are balanced with the primary estrogens (E1, E2). This indicates normal phase 1 estrogen clearance.

#4. Assess whether any of the estrogen-related organic acids are out of range. More information is available here.

Estrogen levels, metabolites, and metabolism patterns can be influenced by nutrient status, oxidative stress, and gut health. Imbalances in glutathione, B12, B6, gut dybiosis, and oxidative stress markers will be commented on here, if relevant for the patient. This may help identify contributing factors affecting estrogens.

ADRENAL

#1. Assess if cortisone (inactive) adds more insight to the free cortisol assessment. More information is available here.

If the cortisone is significantly different from cortisol, there will be a bulleted comment below.

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Cortisol is an active adrenal glucocorticoid, while cortisone is an inactive "storage" form. In the saliva gland, a significant amount of cortisol is converted to cortisone before excretion into the saliva. Therefore, salivary 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 salivary free cortisol implies. If free cortisone is lower than free cortisol, this may indicate free cortisol levels were not as high in circulation (serum) as salivary free cortisol implies.

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

The Systemic Preference slider reflects the balance between cortisol (THF) and cortisone (THE) metabolites and is influenced by systemic cortisol needs. The balance between THF and THE is the best estimation of the systemic balance of cortisol to cortisone. 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.

- The Systemic Preference slider is higher than **40.0%** of the population, which is within the optimal range. This indicates the balance between systemic cortisone and cortisol is normal.

#3. Assess for anabolic-catabolic balance

Androgens such as DHEA (assessed as Total DHEA Production) support tissue growth and repair, while cortisol promotes tissue breakdown. When DHEA is significantly higher than cortisol, it may suggest an anabolic state (favoring tissue building and repair). When DHEA is significantly lower than cortisol, it may suggest a catabolic state (favoring tissue breakdown).

- The Total DHEA Production is balanced compared to the Total Cortisol Production. This indicates a balanced state for tissue repair and maintenance.

#4. Assess whether any of the cortisol-related organic acids are out of range. More information is available here.

Cortisol can be impacted by inflammation, nutrient status, and sleep. Imbalances in B12, B6, melatonin, and neuroinflammation markers will be commented on here if relevant for the patient. This may help identify contributing factors affecting cortisol results.

Finally, please review the patient's results along with their requisition form. It is designed to capture relevant medications, symptoms, diagnoses, sample collection, and notes that may be helpful in interpreting the results.

Additional Comments

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TEST NAME: DUTCH PLUS MALE

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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:

Male Reference Ranges (Updated 10.15.2025)

	Low%	High%	Low	High
b-Pregnanediol	10%	90%	75	400
a-Pregnanediol	10%	90%	20	130
Estrone (E1)	10%	90%	4	16
Estradiol (E2)	10%	90%	0.5	2.2
Estriol (E3)	10%	90%	2	8
2-OH-E1	0	90%	0	5.9
4-OH-E1	0	90%	0	0.8
16-OH-E1	0	90%	0	1.2
2-Methoxy-E1	0	90%	0	2.8
2-OH-E2	0	90%	0	1.2
4-OH-E2	0	90%	0	0.25
2-16-ratio	20%	80%	2.85	9.88
2-4-ratio	20%	80%	6.44	12.6
2Me-2OH-ratio	20%	80%	0.4	0.7
DHEA-S	20%	90%	30	1500
Androsterone	20%	80%	500	3000
Etiocholanolone	20%	80%	400	1500
Testosterone	20%	90%	25	115
5a-DHT	20%	90%	5	25
5a-Androstanediol	20%	90%	30	250
5b-Androstanediol	20%	90%	40	250
Epi-Testosterone	20%	90%	25	115
a-THF	20%	90%	175	700
b-THF	20%	90%	1750	4000
b-THE	20%	90%	2350	5800

% = 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."

	Low%	High%	Low	High
Cortisol Awakening Response (CAR)	20%	90%	1.5	4
Cortisol (S0) - Mid-Sleep	0	90%	0	0.9
Cortisol (S1) - Waking	20%	90%	1.6	4.6
Cortisol (S2) - +30 Min.	20%	90%	3.7	8.2
Cortisol (S3) - +60 Min.	20%	90%	2.3	5.3
Cortisol (SX) - Mid-Day	20%	90%	0.5	2.4
Cortisol (S4) - Dinner	20%	90%	0.4	1.5
Cortisol (S5) - Bedtime	0	95%	0	0.9
Cortisone (S0) - Mid-Sleep	0	95%	0	0.9
Cortisone (S1) - Waking	20%	90%	6.8	14.5
Cortisone (S2) - +30 Min.	20%	90%	12.4	19.4
Cortisone (S3) - +60 Min.	20%	90%	9.4	15.3
Cortisone (SX) - Mid-Day	20%	90%	3.5	9.5
Cortisone (S4) - Dinner	20%	90%	2	7.1
Cortisone (S5) - Bedtime	0	95%	0	4.8
Cortisol Clearance Rate (CCR)	20%	80%	80	160
Melatonin (6-OHMS)	20%	90%	10	85
8-OHdG	0	90%	0	8.8
Methylmalonate	0	90%	0	3.5
Xanthurenate	0	90%	0.2	1.9
Kynurenate	0	90%	1	6.6
b-Hydroxyisovalerate	0	90%	0	18
Pyroglutamate	10%	90%	38	83
Indican	0	90%	0	131
Homovanillate	10%	95%	4	16
Vanilmandelate	10%	95%	2.5	7.5
Quinolinate	0	90%	0	12.5
Calculated Values				
Total DHEA Production	20%	80%	1000	5500
Total Estrogens	10%	90%	10	34
Metabolized Cortisol	20%	90%	4550	10000
Saliva Cortisol Total	20%	90%	9.6	19.3
Saliva Cortisone Total	20%	90%	36	55

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