

About DUTCH Testing

What panels are offered?

What panels does DUTCH offer?

DUTCH Testing Panels

- DUTCH Complete™
- DUTCH Plus®
- DUTCH Cycle Mapping™
- DUTCH Cycle Mapping™ Plus (Cycle Mapping paired with DUTCH Plus®)
- DUTCH Cycle Mapping™ paired with a DUTCH Complete™
- DUTCH CAR (Cortisol Awakening Response)
- DUTCH Adrenal Panel
- DUTCH Sex Hormone Panel
- DUTCH OATs Panel

What panels does DUTCH offer?

DUTCH Testing Panels

- DUTCH Complete™
 - DUTCH Plus®
 - DUTCH Cycle Mapping™
 - DUTCH Cycle Mapping™ Plus (Cycle Mapping paired with DUTCH Plus®)
 - DUTCH Cycle Mapping™ paired with a DUTCH Complete™
 - DUTCH CAR (Cortisol Awakening Response)
 - DUTCH Adrenal Panel
 - DUTCH Sex Hormone Panel
 - DUTCH OATs Panel
- Most popular**



Accession # 00526586
Female Sample Report
123 A Street
Somerset, CA 90266



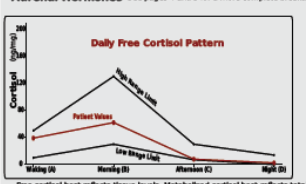
Ordering Provider:
Precision Analytical

DOB: 1976-01-14
Age: 46
Sex: Female

Hormone Testin



Adrenal Hormones



The following videos (which can also be found on the website under the listed Dutch Complete Overview) [Estrogens Tutorial](#) [Female Androgens Tutorial](#)

PLEASE BE SURE TO READ BELOW FOR ANY SPECIFIC LAB COMMENT!

*The patient shows significantly higher free cortisol compared to metabolized cortisol. See comments in the notes for more details.

Precision Analytical (Dawn Hut, Ph.D., Lab Director)
3138 Rivergate Street #301C
McMinville, OR 97128

Female Sample
FINAL REPORT
06/20/2022



Accession # 00526586
Female Sample Report
123 A Street
Somerset, CA 90266



Sex Hormones and Metabolites

Ordering Provider:
Precision Analytical

Test

Progesterone Metabolites (Urine)

- b-Pregnenediol: Low end of range
- a-Pregnenediol: Within luteal

Estrogens and Metabolites (Urine)

- Estrone (E1): Below luteal
- Estradiol (E2): Within luteal
- Estrilol (E3): Within luteal
- 2-OH-E1: Below luteal
- 4-OH-E1: Within luteal
- 16-OH-E1: Low end of range
- 2-Methoxy-E1: Within luteal
- 2-OH-E2: Within luteal
- 4-OH-E2: Within luteal

Total Estrogen: Below range

Androgens and Metabolites (Urine)

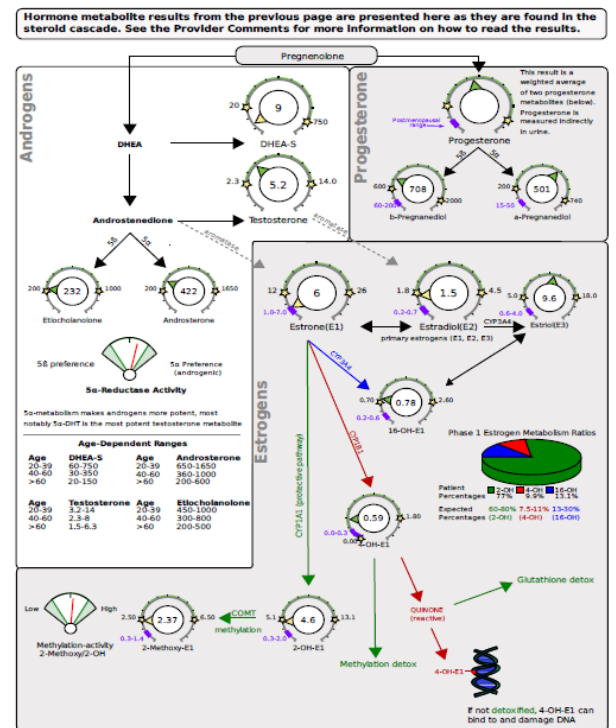
- DHEA-S: Below range
- Androstenedione: Low end of range
- Etiocholanolone: Low end of range
- Testosterone: Within range
- 5a-DHT: Low end of range
- 5a-Androstenediol: Within range
- 5b-Androstenediol: Low end of range
- Epi-Testosterone: Within range

Additional Normal Ranges

- b-Pregnenediol: Within range
- a-Pregnenediol: Within range
- Estrone (E1): Within range
- Estradiol (E2): Within range

Precision Analytical (Dawn Hut, Ph.D., Lab Director)
3138 Rivergate Street #301C
McMinville, OR 97128

Precision Analytical (Dawn Hut, Ph.D., Lab Director)
3138 Rivergate Street #301C
McMinville, OR 97128



Director
Female Sample Report
FINAL REPORT
06/20/2022

Precision Analytical (Dawn Hut, Ph.D., Lab Director)
3138 Rivergate Street #301C
McMinville, OR 97128

Female Sample Report
FINAL REPORT
06/20/2022

Page 1 of 16
CIA Lic. # 302047310
DutchTest.com



Accession # 00526586
Female Sample Report
123 A Street
Somerset, CA 90266



Organic Acid Tests (OATs)

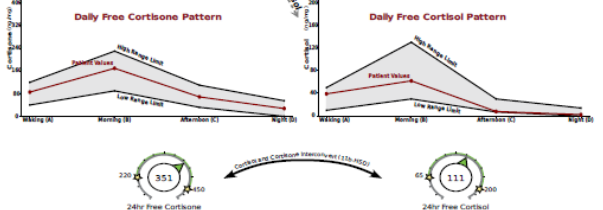
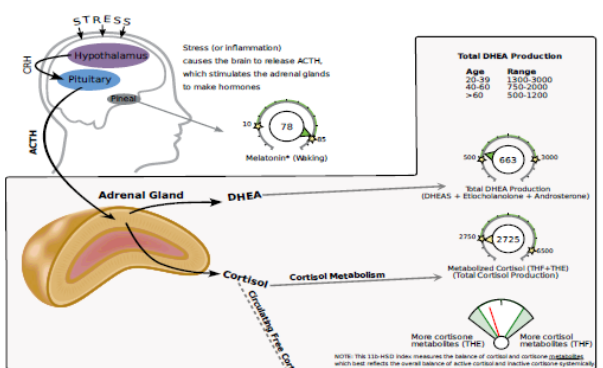
Ordering Provider:
Precision Analytical

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

Last Menstrual Period:

Collection Times:
2022-06-01 09:00AM
2022-06-01 06:00AM
2022-06-01 08:00AM
2022-06-01 05:00PM
2022-06-01 10:00PM

Result	Units	Normal Range
be deficient if high - (Urine)		
mate (MMA)	1.46 ug/mg	0 - 2.5
be deficient if high - (Urine)		
ite	0.34 ug/mg	0.12 - 1.2
be deficient if high - (Urine)		
te	2.03 ug/mg	0.8 - 4.5
icient if high - (Urine)		
sovalerate	6.1 ug/mg	0 - 12.5
be deficient if low or high - (Urine)		
ate	54.7 ug/mg	28 - 58
putrefaction or dysbiosis if high - (Urine)		
te	29.7 ug/mg	0 - 100
Neuro-related Markers		
rine		
late (HVA)	6.3 ug/mg	3 - 11
ate Metabolite - (Urine)		
late (VMA)	4.0 ug/mg	2.2 - 5.5
r - (Urine)		
	4.8 ug/mg	0 - 9.6
Additional Markers		
6-OH-Melatonin-Sulfate) - (Urine)		
(Waking)	77.8 ng/mg	10 - 85
image, measured as 8-Hydroxy-2-deoxyguanosine (8-OHdG) - (Urine)		
bing)	3.01 ng/mg	0 - 5.2



The first value reported (Waking "A1") for cortisol is intended to represent the "overnight" period. When patients sleep through the night, they collect just one sample. In this case, the patient woke during the night and collected (see the top of the report for the times collected). We call this value "A1" and the value from the sample collected at waking "A2". These values are used to create a "time-weighted average" to create the "A" value. However, there was no measurable cortisol found in the A2 sample, so the A1 sample has been used as the A sample for all values. This cortisol value represents the time between bed and the middle of the night collection and not the entirety of the overnight period.

Precision Analytical (Dawn Hut, Ph.D., Lab Director)
3138 Rivergate Street #301C
McMinville, OR 97128

Female Sample Report
FINAL REPORT
06/20/2022

Page 5 of 16
CIA Lic. # 302047310
DutchTest.com



DUTCH Complete™ Biomarkers

Androgens

- Testosterone
- Total DHEA
- DHEA-S

Progesterone Metabolites

- a-pregnanediol
- b-pregnanediol

Cortisol (urine)

- Diurnal free cortisol
- Diurnal free cortisone
- 24hr free cortisol
- 24hr free cortisone

Nutritional Organic Acids

- Vitamin B12 marker
- Two vitamin B6 markers
- Biotin marker
- Glutathione marker
- Gut dysbiosis marker

Androgen metabolites

- 5a-DHT
- 5a-androstenediol
- 5b-androstenediol
- Androsterone
- Etiocholanolone
- Epi-testosterone

Estrogens

- E1 (estrone)
- E2 (estradiol)
- E3 (estriol)

Cortisol Metabolites

- a-THF
- b-THF
- b-THE
- Metabolized Cortisol (THE + THF)

Neuro-related Markers

- Dopamine marker
- Norepinephrine & Epinephrine marker
- Neuroinflammation marker

Estrogen Metabolites

- 2-OH-E1
- 2-OH-E2
- 4-OH-E1
- 4-OH-E1
- 16-OH-E1
- 2-methoxy-E1

Additional Markers

- Melatonin marker
- DNA damage marker



Accession # 00526587
Female Sample Report
123 A Street
Sometown, CA 90266

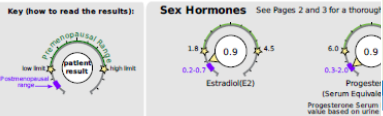


Last Menstrual Period:

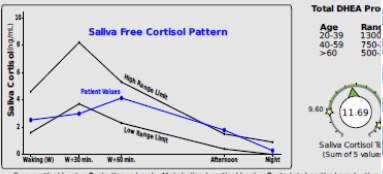
Ordering Provider:
Precision Analytical

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

Hormone Testing Summary



Adrenal Hormones



Free cortisol best reflects tissue levels. Metabolized cortisol best reflects total cortisol production. The following videos (which can also be found on the website under the listed names along with DUTCH Plus Overview (quick overview), Estrogen Tutorial, Female Androgen Tutorial, Cort) PLEASE BE SURE TO READ BELOW FOR ANY SPECIFIC LAB COMMENTS. More detailed:

Female Sample Report
FINAL REPORT
06/20/2022

recision Analytical (Dawn Huo, Ph.D., Lab Director)
138 Rivergate Street #301C
McMinville, OR 97128



Accession # 00526587
Female Sample Report
123 A Street
Sometown, CA 90266



Sex Hormones and Metabolites

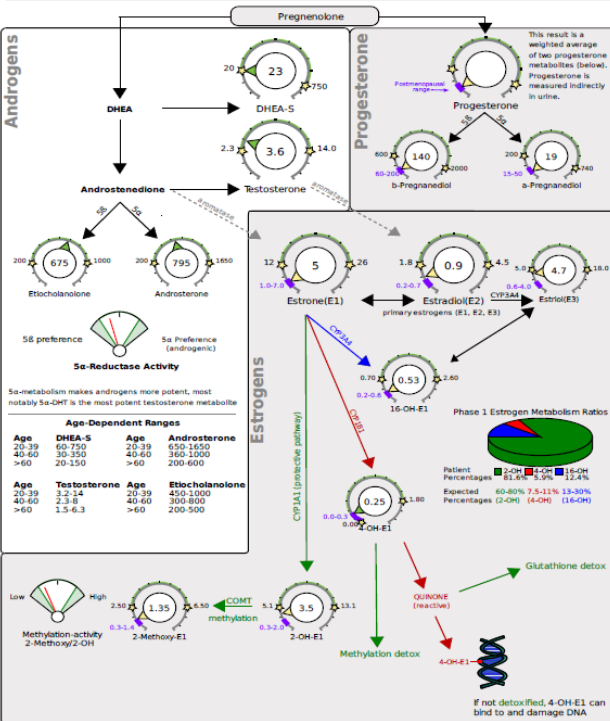
Ordering Provider:
Precision Analytical

Test	Result	Units	Normal Range
Progesterone Metabolites (Urine)			
b-Pregnenediol	Below luteal ran		
Estrogens and Metabolites (Urine)			
Estrone(E1)	Below luteal ran		
Estradiol(E2)	Below luteal ran		
Estrone(E1)	Below luteal ran		
2-OH-E1	Within luteal ran		
4-OH-E1	Within luteal ran		
16-OH-E1	Below luteal ran		
2-Methoxy-E1	Below luteal ran		
2-OH-E2	Within luteal ran		
4-OH-E2	Within luteal ran		
Total Estrogen	Below range		
Androgens and Metabolites (Urine)			
DHEA-S	Low end of range		
Androstenedione	Within range		
Etiocholanolone	Within range		
Testosterone	Low end of range		
5a-DHT	Within range		
5a-Androstenediol	High end of range		
5b-Androstenediol	Within range		
Epi-Testosterone	Low end of range		

Additional Normal Ranges
b-Pregnenediol
a-Pregnenediol
Estrone (E1)
Estradiol (E2)

recision Analytical (Dawn Huo, Ph.D., Lab Director)
138 Rivergate Street #301C
McMinville, OR 97128

Hormone metabolite results from the previous page are presented here as they are found in the steroid cascade. See the Provider Comments for more information on how to read the results.



recision Analytical (Dawn Huo, Ph.D., Lab Director)
138 Rivergate Street #301C
McMinville, OR 97128

Female Sample Report
FINAL REPORT
06/20/2022



Accession # 00526587
Female Sample Report
123 A Street
Sometown, CA 90266



Ordering Provider:
Precision Analytical

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

Test	Result	Units	Normal Range
Androgens			
DHEA	Within range		
DHEA-S	Below range		
Progesterone	Within range		
Testosterone	Low end of range		
Androstenedione	Within range		
Etiocholanolone	Within range		
Testosterone	Low end of range		
5a-DHT	Within range		
5a-Androstenediol	High end of range		
5b-Androstenediol	Within range		
Epi-Testosterone	Low end of range		
Estrogens			
Estrone (E1)	Low end of range		
Estradiol (E2)	Low end of range		
Estrone (E1) metabolites	Low end of range		
2-OH-E1	Low end of range		
4-OH-E1	Low end of range		
16-OH-E1	Low end of range		
2-Methoxy-E1	Low end of range		
2-OH-E2	Low end of range		
4-OH-E2	Low end of range		
Progesterone			
Progesterone	Within range		
b-Pregnenediol	Within range		
a-Pregnenediol	Within range		
Saliva			
Saliva Free Cortisol	Low end of range		
Saliva Free Cortisone	Low end of range		
Saliva Free Cortisone	Low end of range		
Saliva Free Cortisone	Low end of range		

recision Analytical (Dawn Huo, Ph.D., Lab Director)
138 Rivergate Street #301C
McMinville, OR 97128

Female Sample Report
FINAL REPORT
06/20/2022

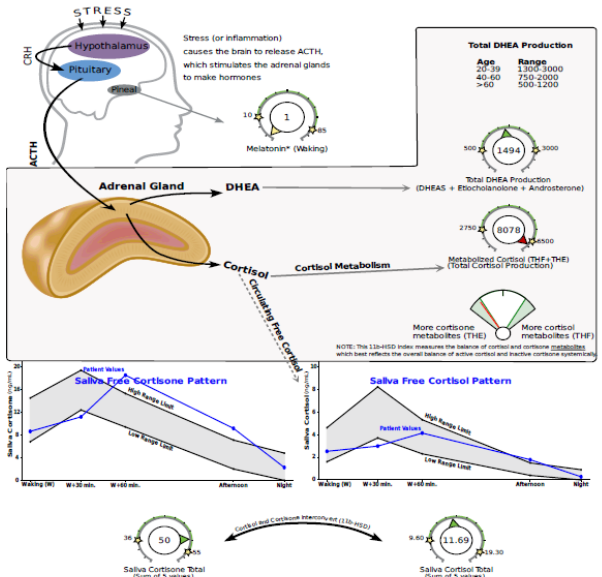


Accession # 00526587
Female Sample Report
123 A Street
Sometown, CA 90266



Ordering Provider:
Precision Analytical

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

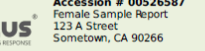


The patient submitted an insomnia salivary sample. The cortisol result for this sample was 1.10ng/ml, (expected range 0-0.9) The cortisone result for this sample was 5.4 ng/ml (expected range 0-4.8). The Cortisol Awakening Response (CAR) is the rise in salivary cortisol between the waking sample and the sample collected 30 (as well as 60) minutes later. This 'awakening response' is essentially a 'mini stress test' and is a useful measurement in addition to the overall up-and-down (diurnal) pattern of free cortisol throughout the day. This patient shows a waking cortisol of 2.52 and an increase to 2.98 after 30.0 minutes. This is an increase of 0.46ng/ml, or 18.3%. Expected increases differ depending on the methods used. Preliminary research shows that 50-100% of 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 4.13 measured 60 minutes after waking. This is an increase of 1.6ng/ml, or 65.9% compared to the waking sample. To date, data suggests that expected results may be 0-70%, and this guideline is considered for research only.

recision Analytical (Dawn Huo, Ph.D., Lab Director)
138 Rivergate Street #301C
McMinville, OR 97128

Female Sample Report
FINAL REPORT
06/20/2022

recision Analytical (Dawn Huo, Ph.D., Lab Director)
138 Rivergate Street #301C
McMinville, OR 97128



Accession # 00526587
Female Sample Report
123 A Street
Sometown, CA 90266



Ordering Provider:
Precision Analytical

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

Test	Result	Units	Normal Range
Nutritional Organic Acids			
MMA	Above range	4.89	ug/mg 0 - 2.5
TA	Below Limit of Detection		ug/mg 28 - 58
TA:TA	Above range	1.23	ug/mg 0.12 - 1.2
TA:TA	Above range	5.35	ug/mg 0.8 - 4.5
Neuro-related Markers			
5-HIAA	Low end of range	4.4	ug/mg 3 - 11
5-HIAA	Above range	7.3	ug/mg 2.2 - 5.5
5-HIAA	Above range	13.2	ug/mg 0 - 9.6
Additional Markers			
Melatonin-Sulfate	Below range	1.3	ng/mg 10 - 85
Melatonin-Sulfate	Within range	3.8	ng/mg 0 - 5.2

Female Sample Report
FINAL REPORT
06/20/2022

recision Analytical (Dawn Huo, Ph.D., Lab Director)
138 Rivergate Street #301C
McMinville, OR 97128

DUTCH Plus® Biomarkers

Androgens

- Testosterone
- Total DHEA
- DHEA-S

Progesterone Metabolites

- a-pregnanediol
- b-pregnanediol

Cortisol (saliva)

- Diurnal free cortisol
- Diurnal free cortisone
- Total salivary free cortisol
- Total salivary free cortisone
- Cortisol awakening response (CAR)

Nutritional Organic Acids

- Vitamin B12 marker
- Two vitamin B6 markers
- Biotin marker
- Glutathione marker
- Gut dysbiosis marker

Androgen metabolites

- 5a-DHT
- 5a-androstenediol
- 5b-androstenediol
- Androsterone
- Etiocholanolone
- Epi-testosterone

Estrogens

- E1 (estrone)
- E2 (estradiol)
- E3 (estriol)

Cortisol Metabolites

- a-THF
- b-THF
- b-THE
- Metabolized Cortisol (THE + THF)

Neuro-related Markers

- Dopamine marker
- Norepinephrine & Epinephrine marker
- Neuroinflammation marker

Estrogen Metabolites

- 2-OH-E1
- 2-OH-E2
- 4-OH-E1
- 4-OH-E1
- 16-OH-E1
- 2-methoxy-E1

Additional Markers

- Melatonin marker
- DNA damage marker

What panels do we offer?

DUTCH Testing Panels

- DUTCH Complete™
- DUTCH Plus®
- DUTCH Cycle Mapping™
- DUTCH Cycle Mapping™ Plus (Cycle Mapping paired with DUTCH Plus®)
- DUTCH Cycle Mapping™ paired with a DUTCH Complete™
- DUTCH CAR (Cortisol Awakening Response)
- DUTCH Adrenal Panel
- DUTCH Sex Hormone Panel
- DUTCH OATs Panel

DUTCH Cycle Mapping™



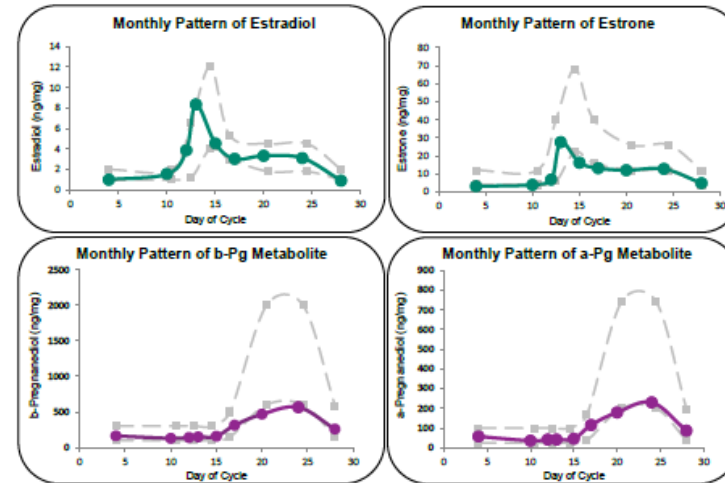
Cycle Mapping Results



Name: Cycle Map Case
 Provider: Precision Analytical
 Accession #: 972341

D.O.B.: 1/1/1990
 Collection Date: 12/6-12/27-2020

Estrogen (E) patterns can be seen below in green. Progesterone (Pg) patterns can be seen below in purple. Normal ranges are within the gray dashed lines. See page 2 for more information.



All values given in ng/mg creatinine

Measurement	1	2	3	4	5	6	7	8	9
Day(s) of Cycle	4	10	12	13	15	17	20	24	28
Estradiol (E2)	1.00	1.56	3.86	8.33	4.53	3.03	3.33	3.10	0.91
Estrone (E1)	3.1	3.9	6.8	27.5	16.2	13.2	12.0	12.7	4.8
a-Pregnanediol	57	35	41	42	45	115	179	230	86
b-Pregnanediol	162	127	138	147	157	312	467	565	256
b-Pregnanediol/E2 Ratio	161	81	36	18	35	103	140	182	282
Creatinine	1.00	1.75	1.90	1.65	2.41	1.23	1.11	0.87	0.86

Sample (#8) with the highest b-Pg value (565) is used for E and Pg metabolites for DUTCH Complete or Plus if ordered.

Normal Ranges	Follicular	Ovulatory	Luteal	Postmenopausal
Estradiol	1-2ng/mg	4-12ng/mg	1.8-4.5ng/mg	0.2-0.7ng/mg
Estrone	4-12ng/mg	22-68ng/mg	12-26ng/mg	3.0-7.0ng/mg
a-Pregnanediol	25-100ng/mg	25-100ng/mg	200-740ng/mg	15-50ng/mg
b-Pregnanediol	100-300ng/mg	100-300ng/mg	600-2000ng/mg	60-200ng/mg

b-Pregnanediol/E2 ratio is typically 50-300 in the follicular phase, <100 during ovulation, and 100-500 in the luteal phase. Creatinine normal range, 0.2-2.0 mg/dL. Values outside this range may be less certain due to under or overhydration.

Precision Analytical Inc (Dawn Huo, PhD, Lab Director)
 3138 NE Rivergate St #301C
 McMinnville, OR 97128
 dutchtest.com



DUTCH Cycle Mapping™ Biomarkers

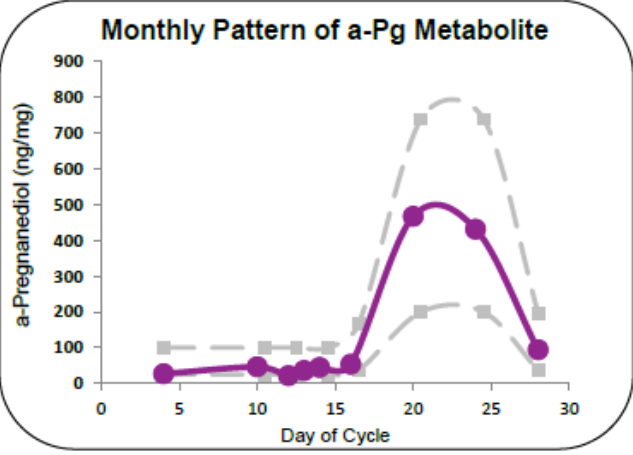
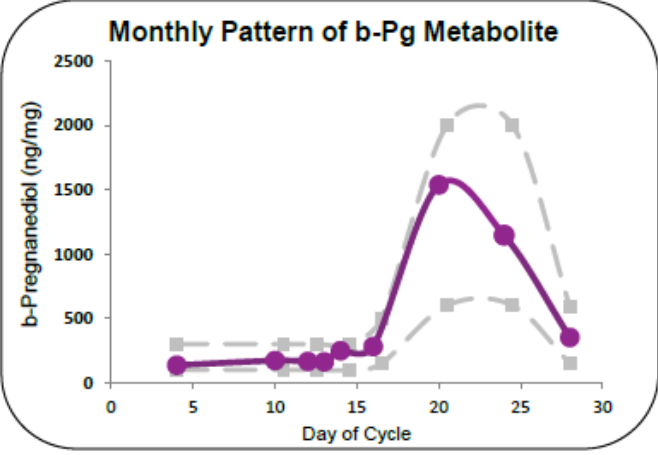
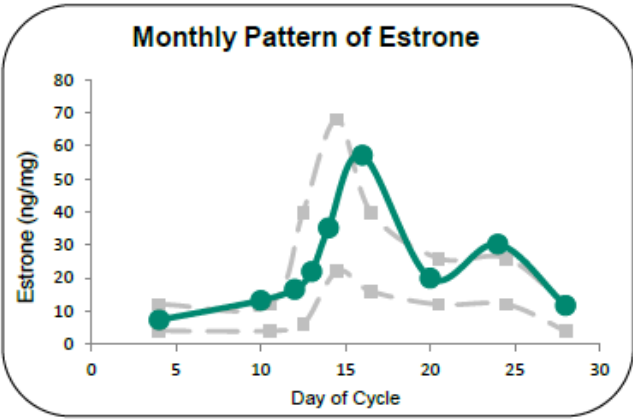
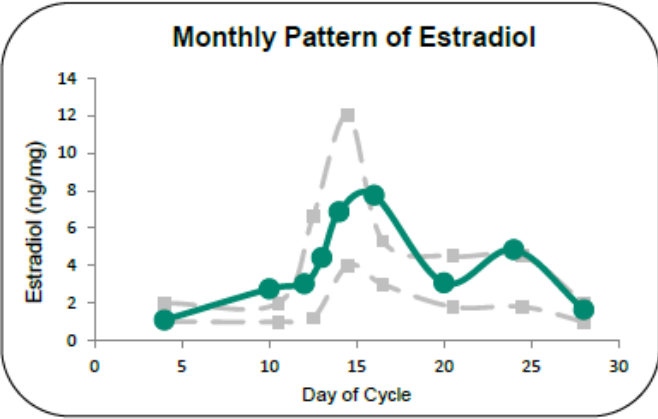
Progesterone Metabolites

- a-pregnanediol
- b-pregnanediol

Estrogens

- E1 (estrone)
- E2 (estradiol)

Nine data points graphed out for E1, E2 and each of the progesterone metabolites.



Dutch's Smaller Panels



dutch[®]
BY PRECISION ANALYTICAL INC.

What panels do we offer?

DUTCH Testing Panels

- DUTCH Complete™
- DUTCH Plus®
- DUTCH Cycle Mapping™
- DUTCH Cycle Mapping™ Plus (Cycle Mapping paired with DUTCH Plus®)
- DUTCH Cycle Mapping™ paired with a DUTCH Complete™
- DUTCH CAR (Cortisol Awakening Response)
- DUTCH Adrenal Panel
- DUTCH Sex Hormones Panel
- DUTCH OATs Panel

DUTCH Cortisol Awakening Response (CAR)



Accession # 00268797
 Female Sample Report
 123 A Street
 Sometown, CA 90266



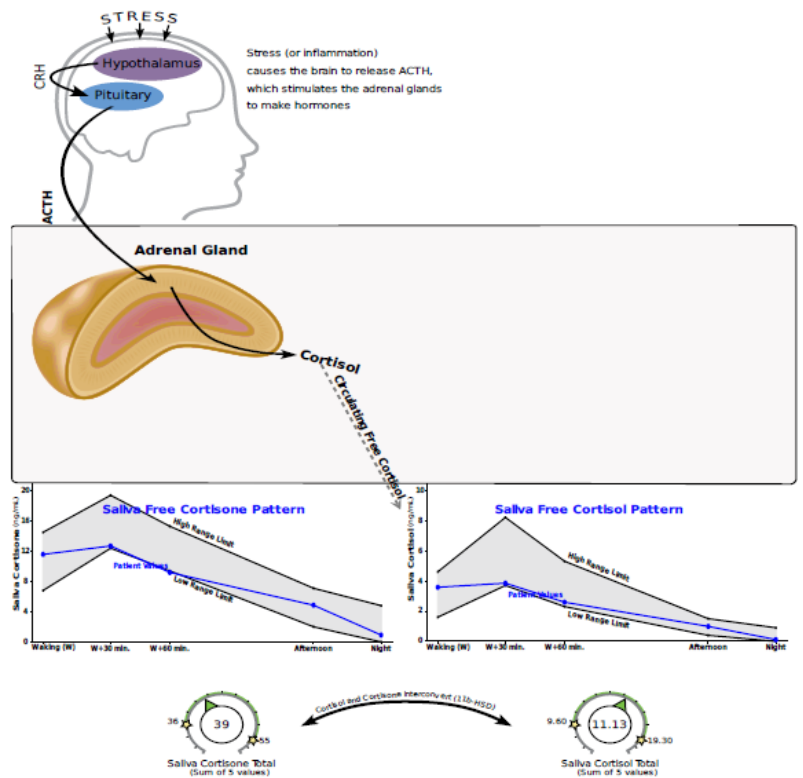
Cortisol Awakening Response

Ordering Provider:
 Precision Analytical

DOB: 1989-10-10
Age: 27
Gender: Female

Last Menstrual Period:

Collection Times:
 2017-08-09 06:01AM (S)
 2017-08-09 06:31AM (S)
 2017-08-09 07:01AM (S)
 2017-08-09 05:01PM (S)
 2017-08-09 10:01PM (S)
 2017-08-09 01:30AM (S*)



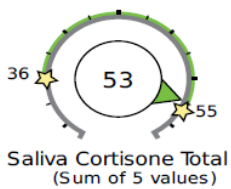
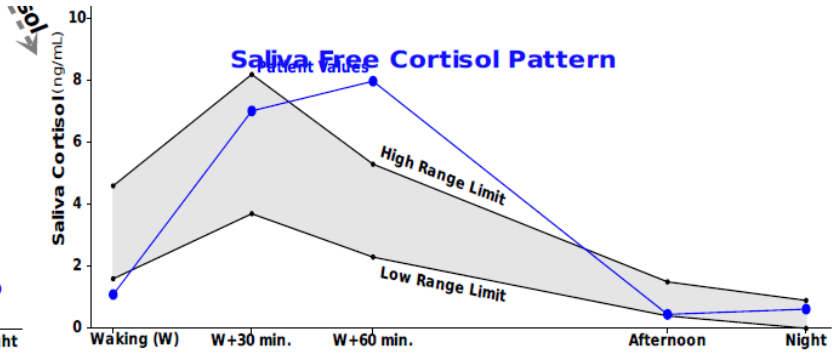
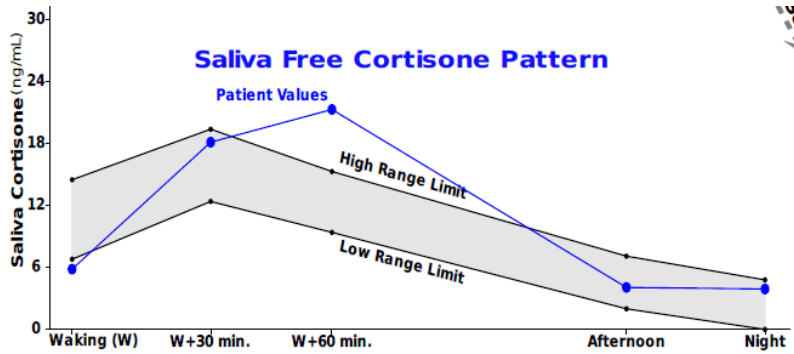
- The patient submitted an insomnia salivary sample. The cortisol result for this sample was 2.10ng/mL (expected range 0-0.9) The cortisone result for this sample was 10.4 ng/mL (expected range 0-4.8)

The Cortisol Awakening Response (CAR) is the rise in salivary cortisol between the waking sample and the sample collected 30 (as well as 60) minutes later. This "awakening response" is essentially a "mini stress test" and is a useful measurement in addition to the overall up-and-down (diurnal) pattern of free cortisol throughout the day. **This patient shows a waking cortisol of 3.58 and an increase to 3.85 after 30.0 minutes. This is an increase of 0.27ng/mL or 7.5%. Expected increases differ depending on the methods used. 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 2.59 measured 60 minutes after waking. Generally this result is a little higher than the waking sample but is not in this case. To date, data suggests that expected results may be 0-70% higher, and this guideline is considered for research only.

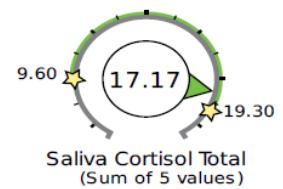
Category	Test	Result	Units	Normal Range
Free Cortisol and Cortisone (Saliva)				
	Saliva Cortisol - Waking (W)	Within range	3.58	ng/mL 1.6 - 4.6
	Saliva Cortisol - W+30 min.	Low end of range	3.85	ng/mL 3.7 - 8.2
	Saliva Cortisol - W+60 min.	Low end of range	2.59	ng/mL 2.3 - 5.3
	Saliva Cortisol - Afternoon	Within range	0.99	ng/mL 0.4 - 1.5
	Saliva Cortisol - Night	Low end of range	0.12	ng/mL 0 - 0.9
	Saliva Cortisone - Waking (W)	Within range	11.58	ng/mL 6.8 - 14.5
	Saliva Cortisone - W+30 min.	Low end of range	12.7	ng/mL 12.4 - 19.4
	Saliva Cortisone - W+60 min.	Below range	9.19	ng/mL 9.4 - 15.3
	Saliva Cortisone - Afternoon	Within range	4.86	ng/mL 2 - 7.1
	Saliva Cortisone - Night	Low end of range	0.91	ng/mL 0 - 4.8
	Saliva Cortisol Total	Low end of range	11.13	ng/mL 9.6 - 19.3
	Saliva Cortisone Total	Low end of range	39.24	ng/mL 36 - 55
Additional Cortisol and Cortisone (Saliva)				
	* Saliva Cortisol - Insomnia	Above range	2.1	ng/mL 0 - 0.9
	* Saliva Cortisone - Insomnia	Above range	10.4	ng/mL 0 - 4.8



DUTCH CAR Biomarkers



Cortisol and Cortisone interconvert (11 β -HSD)



- ### Cortisol (saliva)
- Diurnal free cortisol
 - Diurnal free cortisone
 - Total salivary free cortisol
 - Total salivary free cortisone
 - Cortisol awakening response (CAR)

DUTCH Adrenal Panel



Accession # 00268795
 Male Sample Report
 123 A Street
 Sometown, CA 90266



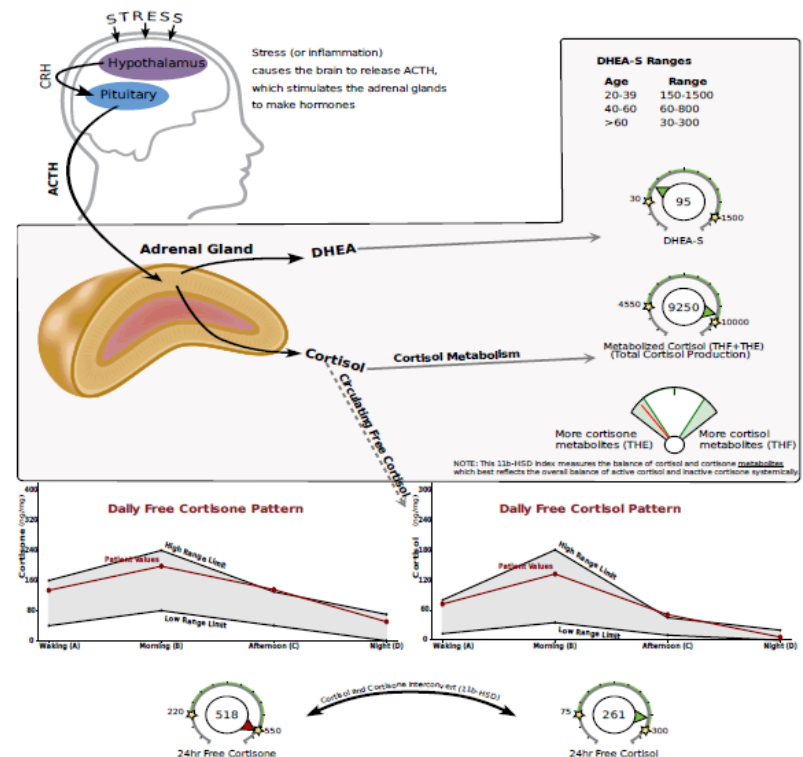
Adrenal

Ordering Provider:
 Precision Analytical

DOB: 1967-08-09
Age: 50
Sex: Male

Collection Times:
 2017-08-09 06:01AM
 2017-08-09 08:01AM
 2017-08-09 05:01PM
 2017-08-09 10:01PM

Category	Test	Result	Units	Normal Range
Creatinine (Urine)				
	Creatinine A (Waking)	Within range	0.45	mg/ml 0.3 - 3
	Creatinine B (Morning)	Within range	0.41	mg/ml 0.3 - 3
	Creatinine C (Afternoon)	Within range	0.9	mg/ml 0.3 - 3
	Creatinine D (Night)	Within range	0.88	mg/ml 0.3 - 3
Daily Free Cortisol and Cortisone (Urine)				
	Cortisol A (Waking)	High end of range	72.0	ng/mg 13 - 80
	Cortisol B (Morning)	Within range	132.0	ng/mg 35 - 180
	Cortisol C (Afternoon)	Above range	51.0	ng/mg 10 - 45
	Cortisol D (Night)	Within range	6.2	ng/mg 0 - 20
	Cortisone A (Waking)	Within range	134.0	ng/mg 40 - 160
	Cortisone B (Morning)	Within range	198.0	ng/mg 80 - 240
	Cortisone C (Afternoon)	Above range	136.0	ng/mg 40 - 130
	Cortisone D (Night)	Within range	50.4	ng/mg 0 - 70
	24hr Free Cortisol	High end of range	261.2	ng/mg 75 - 300
	24hr Free Cortisone	High end of range	518.4	ng/mg 220 - 550
Cortisol Metabolites and DHEA-S (Urine)				
	a-Tetrahydrocortisol (a-THF)	Within range	450.0	ng/mg 175 - 700
	b-Tetrahydrocortisol (b-THF)	Within range	2800.0	ng/mg 1750 - 4000
	b-Tetrahydrocortisone (b-THE)	Above range	6000.0	ng/mg 2350 - 5800
	Metabolized Cortisol (THF+THE)	High end of range	9250.0	ng/mg 4550 - 10000
	DHEA-S	Low end of range	95.0	ng/mg 30 - 1500



The first value reported (Waking "A") for cortisol is intended to represent the "overnight" period. When patients sleep through the night, they collect just one sample. In this case, the patient did not report waking up during the night to collect a sample, so the "Waking (A)" cortisol and cortisone values should accurately represent the entirety of the overnight period.



DUTCH Adrenal Panel Biomarkers

Androgens

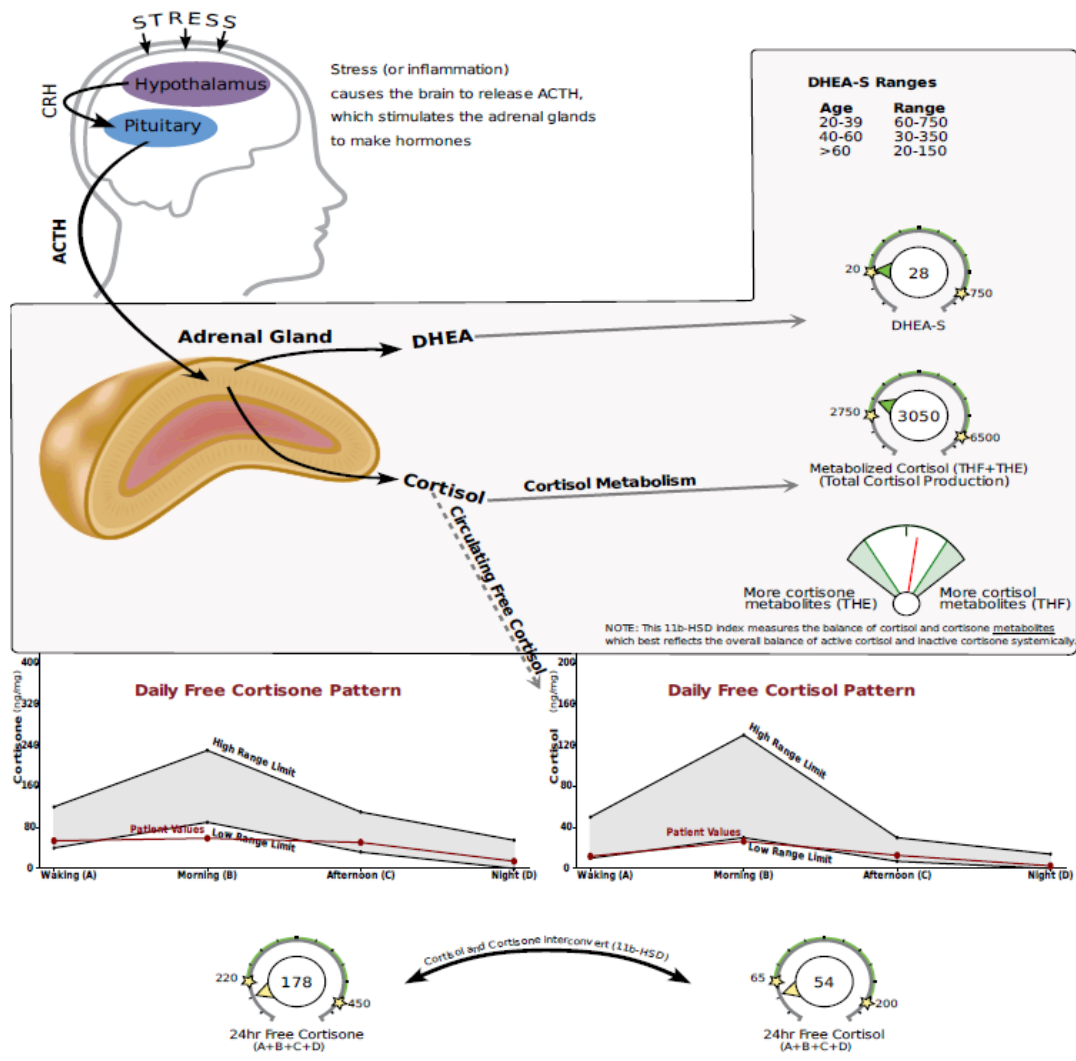
- DHEA-S

Cortisol (urine)


- Diurnal free cortisol
- Diurnal free cortisone
- 24hr free cortisol
- 24hr free cortisone

Cortisol Metabolites


- a-THF
- b-THF
- b-THE
- Metabolized Cortisol (THE + THF)



DUTCH Sex Hormones Panel



Accession # 00216506
Female Sample Report
123 A Street
Sometown, CA 90266



PRECISION ANALYTICAL INC.
SIMPLY BETTER TESTING

Last Menstrual Period:
2015-10-12

Collection Times:
2015-11-10 04:00AM
2015-11-10 06:00AM
2015-11-10 03:00PM
2015-11-10 09:00PM

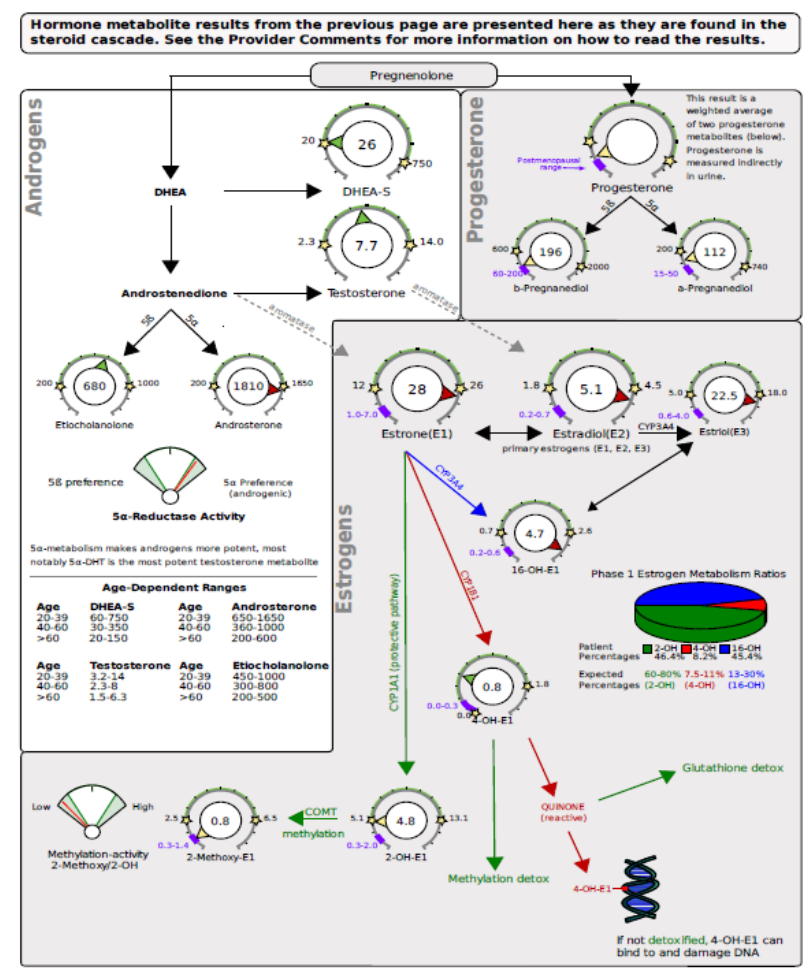
Sex Hormones and Metabolites

Ordering Provider: Dr. Dutch
DOB: 1988-02-27
Age: 27
Sex: Female

Test	Result	Units	Luteal* Range	Postmenopausal Range
Progesterone Metabolites (Urine)				
b-Pregnanediol	196.0	ng/mg	600 - 2000	60-200
a-Pregnanediol	112.0	ng/mg	200 - 740	15-50
Estrogens and Metabolites (Urine)				
Estrone(E1)	28.2	ng/mg	12 - 26	1.0-7.0
Estradiol(E2)	5.1	ng/mg	1.8 - 4.5	0.2-0.7
Estriol(E3)	22.5	ng/mg	5 - 18	0.6-4.0
2-OH-E1	4.8	ng/mg	5.1 - 13.1	0.3-2.0
4-OH-E1	0.8	ng/mg	0 - 1.8	0-0.3
16-OH-E1	4.7	ng/mg	0.7 - 2.6	0.2-0.6
2-Methoxy-E1	0.8	ng/mg	2.5 - 6.5	0.3-1.4
2-OH-E2	0.19	ng/mg	0 - 1.2	0-0.3
4-OH-E2	0.3	ng/mg	0 - 0.5	0-0.1
Total Estrogen	67.1	ng/mg	35 - 70	4.0-15
Androgens and Metabolites (Urine)				
DHEA-S	26.0	ng/mg	20 - 750	
Androsterone	1810.0	ng/mg	200 - 1650	
Etiocholanolone	680.0	ng/mg	200 - 1000	
Testosterone	7.7	ng/mg	2.3 - 14	
5a-DHT	7.2	ng/mg	0 - 6.6	
5a-Androstanediol	42.0	ng/mg	6 - 30	
5b-Androstanediol	32.0	ng/mg	20 - 75	
Epi-Testosterone	8.8	ng/mg	2.3 - 14	

*the Luteal Range is the premenopausal range. When patients are taking oral progesterone this range for progesterone metabolites is not luteal and reflects the higher levels expected when patients take oral progesterone. This test is intended to be taken in the luteal phase of the menstrual cycle (days 19-22 of a 28 day cycle) for premenopausal women. The ranges in the table below may be used when samples are taken during the first few days (follicular) of the cycle, during ovulation (days 11-14) or when patients are on oral progesterone. See the following pages for age-dependent ranges for androgen metabolites.

Additional Normal Ranges	Follicular	Ovulatory	Oral Pg (100mg)
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



DUTCH Sex Hormone Panel Biomarkers

Androgens

- Testosterone
- Total DHEA
- DHEA-S

Progesterone Metabolites

- a-pregnanediol
- b-pregnanediol

Androgen metabolites

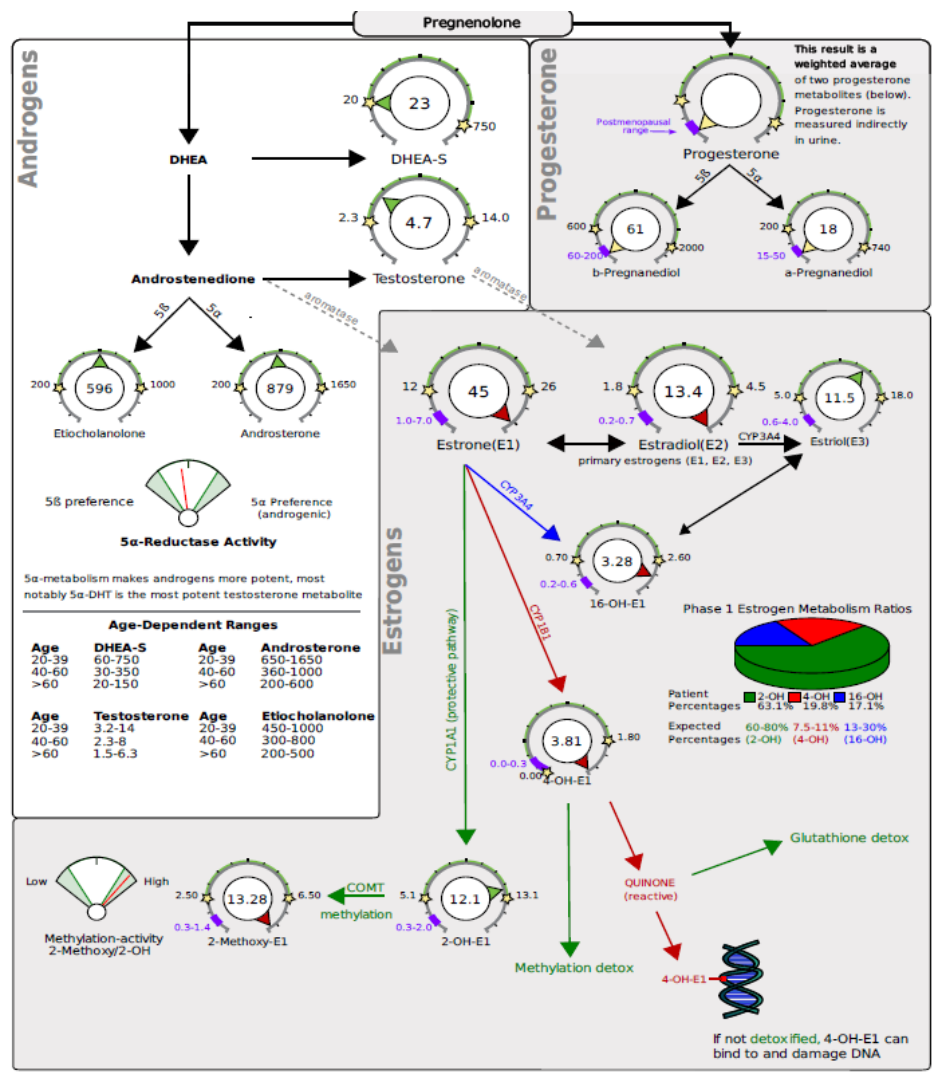
- 5a-DHT
- 5a-androstanediol
- 5b-androstanediol
- Androsterone
- Etiocholanolone
- Epi-testosterone

Estrogens

- E1 (estrone)
- E2 (estradiol)
- E3 (estriol)

Estrogen Metabolites

- 2-OH-E1
- 2-OH-E2
- 4-OH-E1
- 4-OH-E1
- 16-OH-E1
- 2-methoxy-E1



DUTCH Organic Acids Test (OATs) Panel



dutchtest
BY PRECISION ANALYTICAL INC.

Accession # 00526586
Female Sample Report
123 A Street
Sometown, CA 90266



PRECISION ANALYTICAL INC.
SIMPLY BETTER TESTING

Organic Acid Tests (OATs)

Ordering Provider:
Precision Analytical


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

Last Menstrual Period:

Collection Times:
2022-06-01 03:00AM
2022-06-01 06:00AM
2022-06-01 08:00AM
2022-06-01 05:00PM
2022-06-01 10:00PM


Category	Test	Result	Units	Normal Range
Nutritional Organic Acids				
Vitamin B12 Marker (may be deficient if high) - (Urine)				
	Methylmalonate (MMA)	1.46	ug/mg	0 - 2.5
Vitamin B6 Markers (may be deficient if high) - (Urine)				
	Xanthurenate	0.34	ug/mg	0.12 - 1.2
	Kynurenate	2.03	ug/mg	0.8 - 4.5
Biotin Marker (may be deficient if high) - (Urine)				
	b-Hydroxyisovalerate	6.1	ug/mg	0 - 12.5
Glutathione Marker (may be deficient if low or high) - (Urine)				
	Pyroglutamate	54.7	ug/mg	28 - 58
Gut Marker (potential gut putrefaction or dysbiosis if high) - (Urine)				
	Indican	29.7	ug/mg	0 - 100
Neuro-related Markers				
Dopamine Metabolite - (Urine)				
	Homovanillate (HVA)	6.3	ug/mg	3 - 11
Norepinephrine/Epinephrine Metabolite - (Urine)				
	Vanilmandelate (VMA)	4.0	ug/mg	2.2 - 5.5
Neuroinflammation Marker - (Urine)				
	Quinolinatate	4.8	ug/mg	0 - 9.6
Additional Markers				
Melatonin (*measured as 6-OH-Melatonin-Sulfate) - (Urine)				
	Melatonin* (Waking)	77.8	ng/mg	10 - 85
Oxidative Stress / DNA Damage, measured as 8-Hydroxy-2-deoxyguanosine (8-OHdG) - (Urine)				
	8-OHdG (Waking)	3.01	ng/mg	0 - 5.2

DUTCH OATs Panel Biomarkers



dutchtest
BY PRECISION ANALYTICAL INC.

Accession # 00526586
Female Sample Report
123 A Street
Sometown, CA 90266



PRECISION ANALYTICAL INC.
SIMPLY. BETTER. TESTING.

Organic Acid Tests (OATs)

Ordering Provider:
Precision Analytical

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

Last Menstrual Period:

Collection Times:
2022-06-01 03:00AM
2022-06-01 06:00AM
2022-06-01 08:00AM
2022-06-01 05:00PM
2022-06-01 10:00PM

Category	Test	Result	Units	Normal Range
Nutritional Organic Acids				
Vitamin B12 Marker (may be deficient if high) - (Urine)				
	Methylmalonate (MMA)	Within range	1.46 ug/mg	0 - 2.5
Vitamin B6 Markers (may be deficient if high) - (Urine)				
	Xanthurenate	Within range	0.34 ug/mg	0.12 - 1.2
	Kynurenate	Within range	2.03 ug/mg	0.8 - 4.5
Biotin Marker (may be deficient if high) - (Urine)				
	b-Hydroxyisovalerate	Within range	6.1 ug/mg	0 - 12.5
Glutathione Marker (may be deficient if low or high) - (Urine)				
	Pyroglutamate	High end of range	54.7 ug/mg	28 - 58
Gut Marker (potential gut putrefaction or dysbiosis if high) - (Urine)				
	Indican	Within range	29.7 ug/mg	0 - 100
Neuro-related Markers				
Dopamine Metabolite - (Urine)				
	Homovanillate (HVA)	Within range	6.3 ug/mg	3 - 11
Norepinephrine/Epinephrine Metabolite - (Urine)				
	Vanilmandelate (VMA)	Within range	4.0 ug/mg	2.2 - 5.5
Neuroinflammation Marker - (Urine)				
	Quinolate	Within range	4.8 ug/mg	0 - 9.6
Additional Markers				
Melatonin (*measured as 6-OH-Melatonin-Sulfate) - (Urine)				
	Melatonin* (Waking)	High end of range	77.8 ng/mg	10 - 85
Oxidative Stress / DNA Damage, measured as 8-Hydroxy-2-deoxyguanosine (8-OHdG) - (Urine)				
	8-OHdG (Waking)	Within range	3.01 ng/mg	0 - 5.2

- ### Nutritional Organic Acids
- Vitamin B12 marker
 - Two vitamin B6 markers
 - Biotin marker
 - Glutathione marker
 - Gut dysbiosis marker

- ### Neuro-related Markers
- Dopamine marker
 - Norepinephrine & Epinephrine marker
 - Neuroinflammation marker

- ### Additional Markers
- Melatonin marker
 - DNA damage marker

Check out our "Biomarker Comparison Chart"

BIOMARKER COMPARISON CHART

	DUTCH Sex Hormones	DUTCH Adrenal	DUTCH Complete™	Cortisol Awakening Response	DUTCH Plus®	DUTCH Cycle Mapping™	DUTCH Cycle Mapping™ + DUTCH Complete™	DUTCH Cycle Mapping™ PLUS
PROGESTERONE METABOLITES								
b-Pregnanediol	•		•		•		•	•
a-Pregnanediol	•		•		•		•	•
ANDROGEN METABOLITES								
DHEA-S	•	•	•		•		•	•
Androsterone	•		•		•		•	•
Etiocholanolone	•		•		•		•	•
Testosterone	•		•		•		•	•
5a-DHT	•		•		•		•	•
5a-Androstanediol	•		•		•		•	•
5b-Androstanediol	•		•		•		•	•
Epi-Testosterone	•		•		•		•	•
ESTROGEN METABOLITES								

<https://dutchtest.com/biomarker-comparison-chart/>

Also, check out the sample reports on the website: www.dutchtest.com!



ABOUT US ▼

DUTCH TESTING ▼

RESEARCH

PROVIDERS ▼

PATIENTS ▼

EDUCATION ▼

DUTCH NEWS ▼



<https://dutchtest.com/dutch-testing/>

Thank You!

If you are interested in learning more about hormones, each week we hold one-hour long mentorship sessions! Once you are a registered DUTCH provider, you can book these through our online scheduling link. Please call to get registered today.

For questions, contact:

info@dutchtest.com

(503) 687-2050

www.dutchtest.com

