



Order: SAMPLE REPORT

Client #: 12345 Doctor: Sample Doctor Doctor's Data, Inc. 3755 Illinois Ave. St. Charles, IL 60174 Patient: Sample Patient
Age: 50
Sex: Male
Menopausal Status: Post-menopausal

Date/Time
03/02/2022
03/02/2022 06:50
03/02/2022 12:50
03/02/2022 18:00
03/02/2022 21:30
03/03/2022
03/04/2022

Analyte	Result	Unit	L	WRI	н	Optimal Range	Reference Interval
Cortisol AM30	16	nmol/L		\diamond		14.0-25.0	7.0-30.0
Cortisol Noon	4.1	nmol/L				5.0-10.0	2.1 - 14.0
Cortisol Evening	1.3	nmol/L	↓			2.0-5.0	1.5-8.0
Cortisol Night	0.94	nmol/L				1.0-4.0	0.33-7.0
DHEA*	53	pg/mL	↓				137 – 336

H

Cortisol Graph

Hormone Comments

AM cortisol level appears adequate, although the suboptimal diurnal cortisol pattern is suggestive of early (Phase 1) HPA axis (adrenal gland) dysfunction.

 DHEA levels typically decline with age and the level measured here is below the reference range. Note: Supplementation with DHEA may increase testosterone and/or estradiol levels.

Notes:

The current samples are routinely held three weeks from receipt for additional testing.

RI= *Reference Interval, L (blue)*= *Low (below RI), WRI (green)*= *Within RI (optimal), WRI (yellow)*= *Within RI (not optimal), H (red)*= *High (above RI)* *This test was developed and its performance characteristics determined by Doctor's Data Laboratories in a manner consistent with CLIA requirements. The U. S. Food and Drug Administration (FDA) has not approved or cleared this test; however, FDA clearance is not currently required for clinical use. The results are not intended to be used as a sole means for clinical diagnosis or patient management decisions. Methodology: Enzyme Immunoassay



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Patient: Sample Patient Age: 50 Sex: Male Menopausal Status: Post-menopausal



Analyte	Result	Unit	L	WRI	н	Reference Interval	Supplementation Range**
Estradiol (E2)	2.2	pg/mL		\diamond		<2.5	
Progesterone (Pg)	1630	pg/mL				< 130	130-2000
Pg/E2 Ratio [†]	741						≥130
Testosterone	13	pg/mL	↓			30–155	95-800
DHEA*	53	pg/mL	↓			137 – 336	

Hormone Comments

- In males, the Pg/E2 ratio is a clinical ratio, not a physiological ratio. Thus, the Pg/E2 ratio only has a supplementation range. In males supplementing with progesterone, the Pg/E2 ratio provides a target to minimize risk of prostate gland enlargement and cancer.
- The progesterone level is consistent with supplementation (not reported) or exogenous exposure.
- Low testosterone may be associated with metabolic syndrome (insulin resistance). Serum vitamin D, hemoglobin A1c and insulin levels may be warranted. Boosting the testosterone level is a consideration depending on the clinical picture.
- DHEA levels typically decline with age and the level measured here is below the reference range. Note: Supplementation with DHEA may increase testosterone and/or estradiol levels.
- Supplementation reference ranges are based on adherence to proper dosage interval(s). Please visit https://www.DoctorsData.com/Resources/BestPractices.pdf for more information.

Notes:

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[†]The Pg/E2 ratio is an optimal range established based on clinical observation. Reference intervals for Pg/E2 ratio have not been established in males and postmenopausal women who are not supplementing with progesterone and/or estrogens.

**If supplementation is reported then the supplementation ranges will be graphed. The supplementation ranges depicted are for informational purposes only and were derived from a cohort of adult men and women utilizing physiologic transdermal bioidentical hormone therapy.





Order: SAMPLE REPORT

Test: U123456-7890 **Client #:** 12345 **Doctor:** Sample Doctor Doctor's Data, Inc. 3755 Illinois Ave. St. Charles, IL 60174

Patient: Sample Patient Age: 50 Sex: Female Body Mass Index (BMI): 20.0 Sample Collection Date/Time **Date Collected** Wake Up Time **Collection Period Date Received Date Reported**

03/02/2022 07:30 1st morning void 03/03/2022 03/04/2022

Analyte	Result	Unit per Creatinine	L	WRI	Н	Reference Interval
Serotonin	132	hð\ð				60–125
Dopamine	251	µg/g				125-250
Norepinephrine	14.6	µg/g				22-50
Epinephrine	0.9	µg/g				1.6-8.3
Norepinephrine / Epinephrine ratio	16.2					< 13
Glutamate	41	nmol/g			\wedge	12.0-45.0
Gamma-aminobutyrate (GABA)	6	nmol/g				2.0-5.6
Glycine	960	nmol/g				450-2200
Histamine	12	µg ∕g				14-44
Phenethylamine (PEA)	30	nmol/g				32-84
Creatinine	81.0	mg/dL				30-225

Neurotransmitter Comments:

- Urinary neurotransmitter levels provide an overall assessment of the body's ability to make and break down neurotransmitters and are representative of whole body levels. Neurotransmitters are secreted all through the body, in neurons of both the central and peripheral nervous systems. The enzymes, cofactors and precursors in neurotransmitter metabolism in general are the same in the periphery and in the central nervous system. Therefore, alterations in urinary neurotransmitter levels assessed in urine provide important clinical information, and may be associated with many symptoms including cognitive and mood concerns, diminished drive, fatigue and sleep difficulties, cravings, addictions and pain.
- Elevated serotonin may be associated with symptoms of, increased anxiety, agitation and diarrhea (IBS-like symptoms). Serotonin levels may be increased by low protein or high-carbohydrate meals, insulin, and tryptophan or 5-HTP supplementation. Many mood altering medications, including SSRIs and SNRIs, may influence serotonin levels. L-theanine may affect serotonin function.
- Elevated dopamine may be associated with increased worry, distrust of others and decreased ability to interact socially and is often found in patients with attention deficits and hyperactivity. Medications that may increase dopamine levels include L-dopa, methyldopa, select antidepressants and some ADD/ADHD medications. L-theanine may modulate catecholamine effects. Metabolism requires vitamins B2, B3, SAMe, magnesium, and iron, while conversion to norepinephrine requires vitamin C, copper and vitamin B3.
- Low norepinephrine and low epinephrine may be associated with depression and mood changes as well as fatigue, difficulty concentrating, decreased ability to stay focused on tasks and diminished sense of personal/professional drive. Norepinephrine is converted from dopamine requiring vitamin C, copper and niacin (B3). L-tyrosine, L-theanine and Mucuna pruriens influence this pathway.
- Elevated N/E ratio is consistent with poor conversion of norepinephrine to epinephrine. This conversion is driven by the phenylethanolamine Nmethyltransferase (PNMT) enzyme that requires SAMe, magnesium and cortisol (adequate HPA axis function) as cofactors. Suggest interpretation in context of cortisol levels/HPA axis function, with subsequent optimization of HPA axis function when clinically warranted.
- Upper range glutamate may contribute to anxiety, poor concentration, attention deficits and hyperactive tendencies as well as poor sleep and nighttime awakening. Glutamate may be increased in association with hypoglycemia, Alzheimer's, ALS and chronic compromised blood flow to the brain. Possible sources of increased glutamate include MSG, yeast extract and other hidden sources of free glutamic acid. L-theanine may modulate elevated glutamate levels and attenuate glutamate signaling, and taurine may provide protection from excitotoxicity and neuroinflammation.
- Elevated GABA may contribute to difficulty concentrating, diminished memory, dampened mood and decreased cognitive processing as well as fatigue, decreased exercise endurance, sleepiness and an inability to feel alert. Elevated GABA levels may be compensatory in the presence of elevated excitatory neurotransmitters, and may result with gabapentin use. L-theanine may modulate the effects of elevated GABA levels. Elevated GABA levels may be associated with bacterial overgrowth (i.e. urinary tract infection or gastrointestinal dysbiosis).

Notes:

Results are creatinine corrected to account for urine dilution variations. Creatinine is not meant to be used as an indicator of renal function. RI= Reference Interval, L (blue)= Low (below RI), WRI (green)= Within RI (optimal), WRI (yellow)= Within RI (not optimal), H (red)= High (above RI) Methodology: LCMS QQQ, Creatinine by Jaffe Reaction