

# NEUROTRANSMITTERS

## DEMO

FINAL REPORT

Accession ID: 2309010035

Name: NEUROTRANSMITTERS  
DEMO  
Date of Birth: 01-01-1111  
Gender: Male  
Age: 01  
Height: 72 inches  
Weight: 170 lbs  
Fasting: FASTING

Telephone: 000-000-0000  
Street Address:  
Email:

### Provider Information

Practice Name: DEMO CLIENT, MD Telephone: 000-000-0000  
Provider Name: DEMO CLIENT, MD Address: 3521 Leonard Ct, Santa Clara, CA 95054  
Phlebotomist: 0

### Report Information

Current Result Previous Result In Control Moderate Risk

### Specimen Information

Sample Type	Collection Time	Received Time	Report	Final Report Date
Urine 1st Morning	2023-09-11 16:45 (PDT)	2023-09-13 15:39 (PDT)	Neurotransmitters - P2	2023-09-20 16:40 (PDT)
Urine 2nd Morning	2023-09-11 18:00 (PDT)	2023-09-13 15:39 (PDT)	Neurotransmitters - P2	2023-09-20 16:40 (PDT)
Urine Evening	2023-09-11 23:09 (PDT)	2023-09-13 15:39 (PDT)	Neurotransmitters - P2	2023-09-20 16:40 (PDT)
Urine Night	2023-09-11 00:00 (PDT)	2023-09-13 15:39 (PDT)	Neurotransmitters - P2	2023-09-20 16:40 (PDT)

## INTRODUCTION

Vibrant Wellness is pleased to present to you, 'Neurotransmitters', to help you make healthy lifestyle, dietary and treatment choices in consultation with your healthcare provider. It is intended to be used as a tool to encourage a general state of health and well-being. The Vibrant Neurotransmitters is a test to measure inhibitory, excitatory, and other neurotransmitters. The panel is designed to give a complete picture of an individual's levels of neurotransmitters in urine.

### Methodology:

The Vibrant Neurotransmitters panel uses tandem mass spectrometry methodology (LC-MS/MS) for quantitative detection of Neurotransmitters in Urine samples.

### Interpretation of Report:


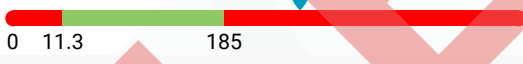
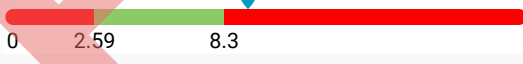

The report begins with the list of all neurotransmitters tested with quantitative results that is outside the normal reference range. Reference ranges have been established using a cohort of 1000 apparently healthy individuals. This is followed by a graphical representation of diurnal norepinephrine and diurnal epinephrine from four samples collected within the same day. This is followed by a complete list of all neurotransmitters tested with quantitative results to enable a full overview along with the corresponding reference ranges. Reference ranges have been validated for <10-year-old, 10–14-year-old, and >14-year-old. The classification of Red indicates a result that is outside the reference range and the classification of Green denotes a result that is within the reference range. Additionally, the previous value (if available) is also indicated to help check for improvements every time the test is ordered.

The Vibrant Wellness platform provides tools for you to track and analyze your general wellness profile. Testing for the Neurotransmitters panel is performed by Vibrant America, a CLIA certified lab CLIA#:05D2078809. Vibrant Wellness provides and makes available this report and any related services pursuant to the Terms of Use Agreement (the "Terms") on its website at [www.vibrant-wellness.com](http://www.vibrant-wellness.com). By accessing, browsing, or otherwise using the report or website or any services, you acknowledge that you have read, understood, and agree to be bound by these terms. If you do not agree to these terms, you shall not access, browse, or use the report or website. The statements in this report have not been evaluated by the Food and Drug Administration and are only meant to be lifestyle choices for potential risk mitigation. Please consult your physician for medication, treatment, diet, exercise, or lifestyle management as appropriate. This product is not intended to diagnose, treat, or cure any disease or condition.

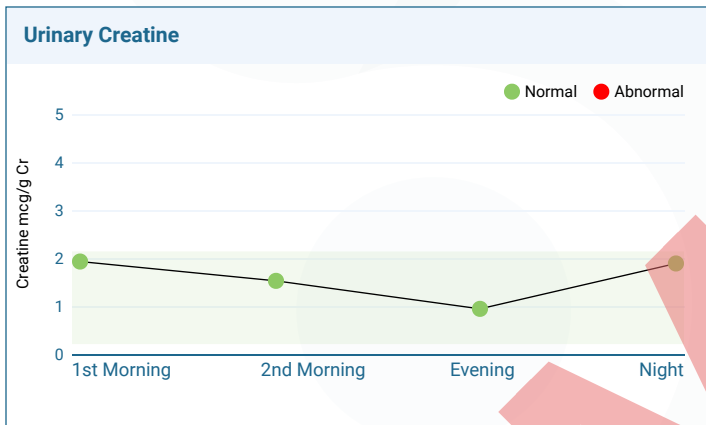
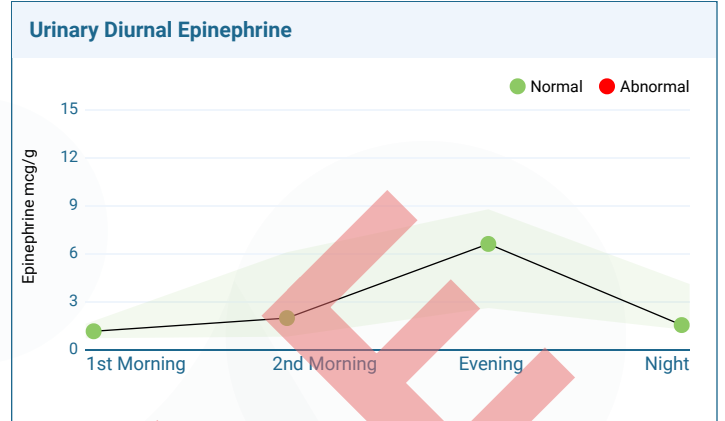
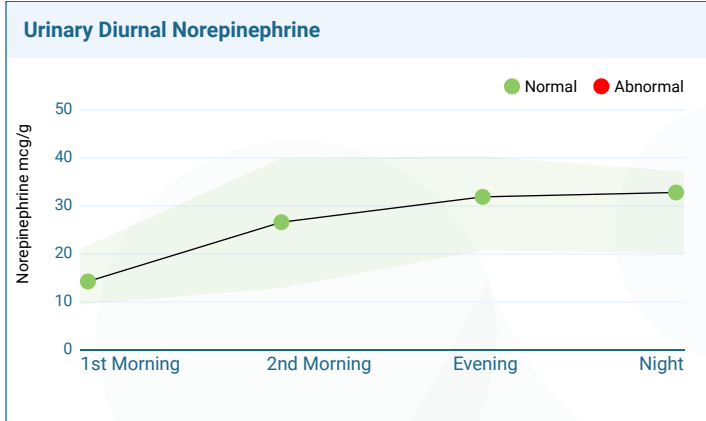
### Please note:

It is important that you discuss any modifications to your diet, exercise, and nutritional supplementation with your physician before making any changes. The Vibrant America Clinical Support team can only provide basic and generalized interpretation of Neurotransmitter biomarkers and pathways. It is the Vibrant ordering provider's responsibility to provide comprehensive interpretation and individualized treatment recommendations for Neurotransmitter lab test results.

## Neurotransmitters

Test Name	Current	Previous	Result	Reference
Acetylcholine (mcg/g)	8.64			1.7-5.9
<p>Acetylcholine is the neurotransmitter used at the neuromuscular junction where it is released from the motor neurons of the nervous system in order to activate muscles. Acetylcholine functions in both the central nervous system (CNS) and the peripheral nervous system (PNS). In the CNS, cholinergic projections from the basal forebrain to the cerebral cortex and hippocampus support the cognitive functions of those target areas. In the PNS, acetylcholine activates muscles and is a major neurotransmitter in the autonomic nervous system. Acetylcholine has been implicated in learning and memory in several ways. In animals, disruption of the supply of acetylcholine impairs the learning of simple discrimination tasks.<sup>25</sup> Acetylcholine is rich in food sources such as eggplant, bitter orange, common bean, foxglove, mistletoe, mung bean, nettle species, pea, radish, spinach, squash, wild strawberry.</p>				
5-HTP (mcg/g)	266.39			11.4-185.6
<p>5-Hydroxytryptophan (5-HTP), also known as oxitriptan, is a naturally occurring amino acid and chemical precursor as well as a metabolic intermediate in the biosynthesis of the neurotransmitter serotonin. 5-HTP is produced from the amino acid tryptophan through the action of the enzyme tryptophan hydroxylase. 5-HTP is normally rapidly converted to 5-HT by amino acid decarboxylase. 5-HTP is sold over the counter as a dietary supplement for use as an antidepressant, appetite suppressant, and sleep aid. Oral 5-HTP results in an increase in urinary 5-HIAA, a serotonin metabolite, indicating that 5-HTP is peripherally metabolized to serotonin, which is then metabolized.</p>				
HVA/DOPAC Ratio	8.47			2.6-8.3
<p>An elevated HVA/DOPAC ratio is associated with excessive supplementation of S-adenosyl methionine, methyltetrahydrofolate, methylcobalamin. A lowered HVA/DOPAC ratio is associated with a genetic deficiency of catechol-O-methyltransferase and/or a nutritional deficiency of S-adenosyl methionine.</p>				
Quinolinic acid/5-HIAA Ratio	0.12			0.32-1.1
<p>A low Quinolinic Acid:5-HIAA ratio is non-significant because quinolinic acid acts as a central nervous system toxin. Thus, if Quinolinic Acid and 5-HIAA are within normal limits, a low ratio is non-significant."</p>				

## GRAPH DATA








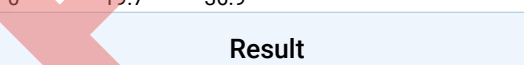
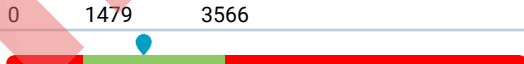
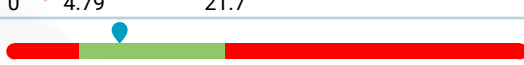
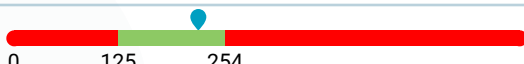
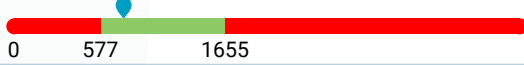
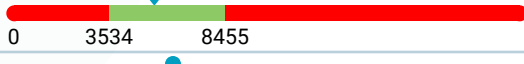


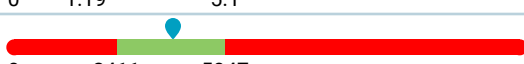

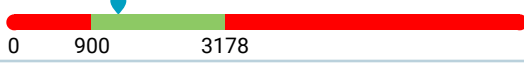

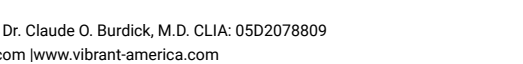



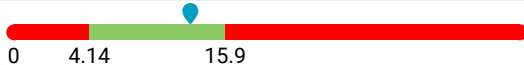


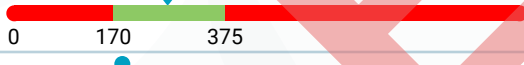
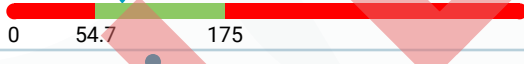

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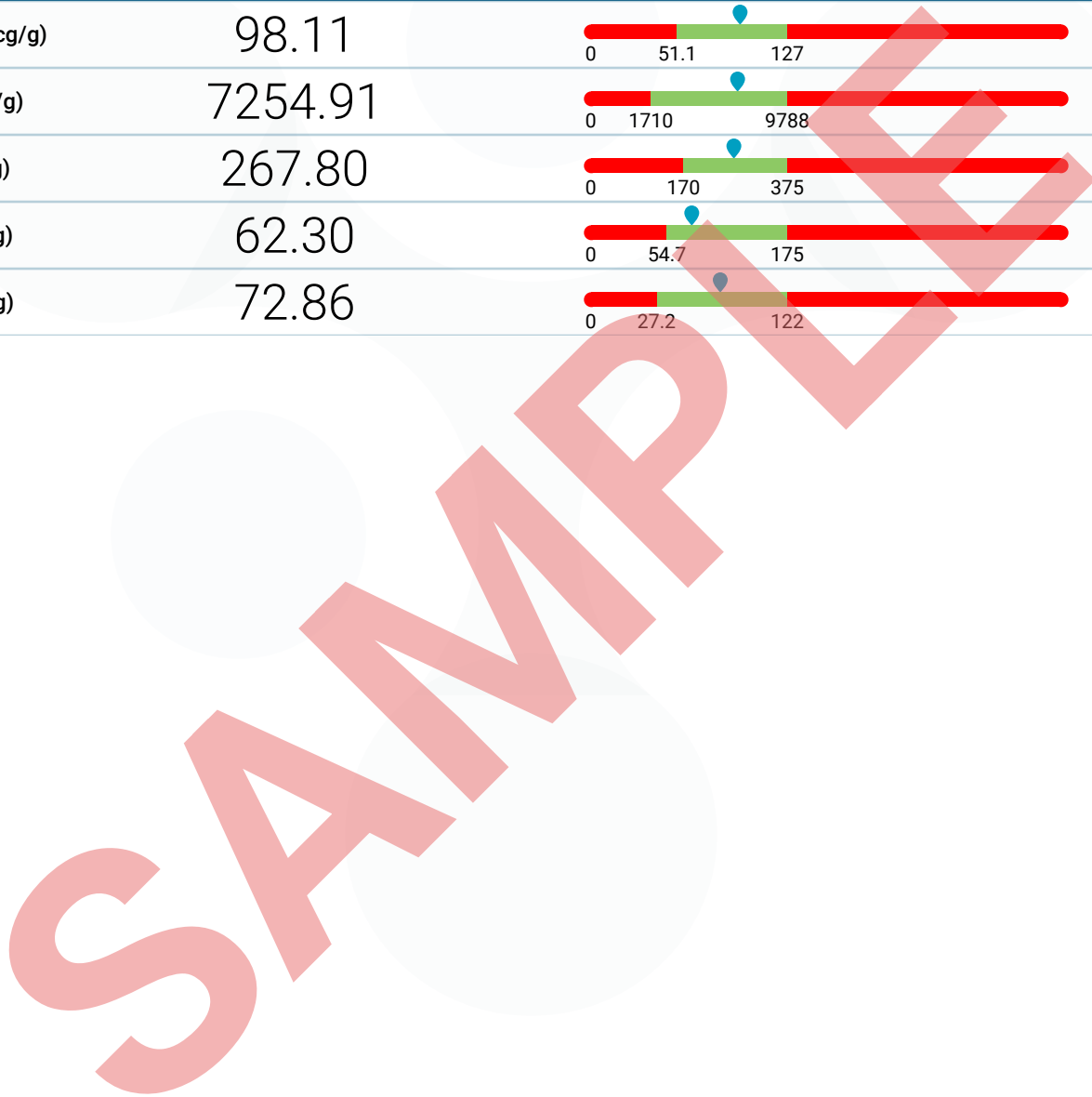
# Neurotransmitters

Neurotransmitters				
OTHER NEUROTRANSMITTERS	Current	Previous	Result	Reference
3-Methoxytyramine (3-MT) (mcg/g)	14.52			13.6-35.2
Metanephrine (mcg/g)	83.68			40.6-127.8
Tryptamine (mcg/g)	50.23			15.8-115.7
Tyrosine (mcg/g)	8569.51			5011.0-12668.0
Tyramine (mcg/g)	397.08			200.1-457.2
Serine (mg/g)	35.61			13.7-40.9
5-HTP (mcg/g)	<b>266.39</b>			11.4-185.6
L-DOPA (mcg/g)	403.08			0.1-855.8
Xanthurenic acid (mg/g)	0.73			0.1-1.6
Quinolinic acid (mcg/g)	892.06			610.3-2432.9
Kynurenic acid (mcg/g)	177.98			125.6-991.3
RATIO	Current	Previous	Result	Reference
Norepinephrine/Epinephrine (mcg/g)	9.63			6.7-12.8
HVA/VMA Ratio	1.33			0.74-1.88
HVA/DOPAC Ratio	<b>8.47</b>			2.6-8.3
Quinolinic acid/5-HIAA Ratio	<b>0.12</b>			0.32-1.1
URINARY CREATININE	Current	Previous	Result	Reference
Creatinine (pooled) (mg/ml)	1.60			0.25-2.16
Creatinine (1st Morning) (mg/ml)	1.95			0.25-2.16
Creatinine (2nd Morning) (mg/ml)	1.55			0.25-2.16
Creatinine (Evening) (mg/ml)	0.97			0.25-2.16
Creatinine (Night) (mg/ml)	1.91			0.25-2.16

# Neurotransmitters

Neurotransmitters				
URINARY DIURNAL EPINEPHRINE	Current	Previous	Result	Reference
Epinephrine (1st Morning) (mcg/g)	1.03			0.6-1.5
Epinephrine (2nd Morning) (mcg/g)	1.86			0.7-6.0
Epinephrine (Evening) (mcg/g)	6.52			2.5-8.7
Epinephrine (Night) (mcg/g)	1.42			1.1-4.0
URINARY DIURNAL NOREPINEPHRINE	Current	Previous	Result	Reference
Norepinephrine (1st Morning) (mcg/g)	13.87			9.0-20.6
Norepinephrine (2nd Morning) (mcg/g)	26.28			12.5-39.7
Norepinephrine (Evening) (mcg/g)	31.59			20.4-40.1
Norepinephrine (Night) (mcg/g)	32.51			19.8-36.9
URINARY EXCITATORY NEUROTRANSMITTERS	Current	Previous	Result	Reference
Glutamate (mcg/g)	3118.50			1479-3566.9
Histamine (mcg/g)	11.31			4.8-21.7
PEA (mcg/g)	7.35			4.1-22.4
Dopamine (mcg/g)	244.37			125.2-254.7
DOPAC (mcg/g)	601.44			577.3-1655.5
HVA (mcg/g)	5092.12			3534-8455.0
Norepinephrine (pooled) (mcg/g)	26.06			15.4-34.3
Normetanephrine (mcg/g)	20.64			15.0-36.7
Epinephrine (pooled) (mcg/g)	2.71			1.2-5.1
VMA (mcg/g)	3821.61			2411-5047.8
Acetylcholine (mcg/g)	<b>8.64</b>			1.7-5.9
Aspartate (mcg/g)	1038.72			900.5-3178.7
Oxytocin (mcg/g)	654.35			250.1-705.0

Neurotransmitters				
URINARY EXCITATORY NEUROTRANSMITTERS	Current	Previous	Result	Reference
Tryptophan (mg/g)	14.26			4.15-15.9
URINARY INHIBITORY NEUROTRANSMITTERS	Current	Previous	Result	Reference
Serotonin (mcg/g)	98.11			51.2-127.9
5-HIAA (mcg/g)	7254.91			1711.0-9788.0
GABA (mcg/g)	267.80			170.1-375.8
Glycine (mg/g)	62.30			54.8-175.3
Taurine (mg/g)	72.86			27.3-122.5



## Risk and Limitations

This test has been developed and its performance characteristics determined and validated by Vibrant America LLC., a CLIA certified lab. These assays have not been cleared or approved by the U.S. Food and Drug Administration. Vibrant Wellness provides additional contextual information on these tests and provides the report in more descriptive fashion.

Neurotransmitters panel does not demonstrate absolute positive and negative predictive values for any condition. Its clinical utility has not been fully established. Clinical history and current symptoms of the individual must be considered by the healthcare provider prior to any interventions. Test results should be used as one component of a physician's clinical assessment.

Neurotransmitters panel testing is performed at Vibrant America, a CLIA certified laboratory. Vibrant America has effective procedures in place to protect against technical and operational problems. However, such problems may still occur. Examples include failure to obtain the result for a specific test due to circumstances beyond Vibrant's control. Vibrant may re-test a sample to obtain these results but upon re-testing the results may still not be obtained. As with all medical laboratory testing, there is a small chance that the laboratory could report incorrect results. A tested individual may wish to pursue further testing to verify any results.

The information in this report is intended for educational purposes only. While every attempt has been made to provide current and accurate information, neither the author nor the publisher can be held accountable for any errors or omissions. Tested individuals may find their experience is not consistent with Vibrant's selected peer reviewed scientific research findings of relative improvement for study groups. The science in this area is still developing and many personal health factors affect diet and health. Since subjects in the scientific studies referenced in this report may have had personal health and other factors different from those of tested individuals, results from these studies may not be representative of the results experienced by tested individuals. Further, some recommendations may or may not be attainable, depending on the tested individual's physical ability or other personal health factors. A limitation of this testing is that many of these scientific studies may have been performed in selected populations only. The interpretations and recommendations are done in the context of these studies, but the results may or may not be relevant to tested individuals of different or mixed ethnicities.

Vibrant Wellness makes no claims as to the diagnostic or therapeutic use of its tests or other informational materials. Vibrant Wellness reports and other information do not constitute medical advice and are not a substitute for professional medical advice. Please consult your healthcare practitioner for questions regarding test results, or before beginning any course of medication, supplementation, or dietary changes.

SAMPLE