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Ordering Physician:

Robert David, PhD

1234 Main St.
Anywhere, GA 30096

Accession #:	**A1204040004**	Date Collected:	04/03/2012
Order #:	G1234567	Date Received:	04/04/2012
Reference #:		Date of Report:	04/04/2012
Patient:	**Sample Report**		
Date of Birth:	02/05/1962	Telephone:	7704464583
Age:	50	Fax:	7704412237
Sex:	Female		
Reprinted:	07/09/2013		
Comment:			

Organix
Urine Organic Acids
U.S. patent pending 2008

0091 Organix® Comprehensive Profile - Urine

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

Organix Interpretation

Organix Interpretive Guide is downloadable at: *www.metametrix.com/files/test-menu/interpretive-guides/Organix-IG.pdf*

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Summary of Abnormal Findings

	Findings	Intervention Options	Common Metabolic Association
Fatty Acid Metabolism			
Adipate	High	Carnitine, B2	Fatty acid oxidation
Carbohydrate Metabolism			
No Abnormality Found			
Energy Production Markers			
Citrate	High	Arginine	Renal ammonia loading
Cis-Aconitate	Very High	Arginine	Renal ammonia loading
Isocitrate	Very High	Arginine	Renal ammonia loading
Succinate	High	CoQ10	ATP production
Fumarate	High	CoQ10	ATP production
B-Complex Vitamin Markers			
No Abnormality Found			
Methylation Cofactor Markers			
No Abnormality Found			
Neurotransmitter Metabolism Markers			
Vanilmandelate	High	Evaluate stress issues	Epi- & Norepinephrine turnover stimulation
Oxidative Damage and Antioxidant Markers			
No Abnormality Found			
Detoxification Indicators			
Glucarate	High	N-acetylcysteine, Hepatic support	Hepatic Phase I and II detox
a-Hydroxybutyrate	High	N-acetylcysteine, other sulfur containing amino acids	Glutathione demand
Pyroglutamate	Very High	N-acetylcysteine, other sulfur containing amino acids	Glutathione wasting
Bacterial - General			

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No Abnormality Found

L. acidophilus / general bacteria

No Abnormality Found

Clostridial Species

No Abnormality Found

Yeast/Fungal

D-Arabinitol	High	Antifungals	Yeast Overgrowth

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This report is not intended for the diagnosis of neonatal inborn errors of metabolism.

Ranges are for ages 13 and over

	Results		Quintile Ranking (1st 2nd 3rd 4th 5th)	95% Reference Range
	mcg/mg creatinine			
Nutrient Markers				
Fatty Acid Metabolism *(Carnitine & B2)*				
1. Adipate	6.3	H	6.2	<= 11.1
2. Suberate	0.7		2.1	<= 4.6
3. Ethylmalonate	0.9		3.6	<= 6.3
Carbohydrate Metabolism *(B1, B3, Cr, Lipoic Acid, CoQ10)*				
4. Pyruvate	2.4		3.9	<= 6.4
5. L-Lactate	2.6		12.6	1.6-57.1
6. ß-Hydroxybutyrate	<DL*		2.1	<= 9.9
Energy Production (Citric Acid Cycle) *(B comp., CoQ10, Amino acids, Mg)*				
7. Citrate	814	H	601	56-987
8. Cis-Aconitate	85	H	51	18-78
9. Isocitrate	214	H	98	39-143
10. a-Ketoglutarate	16.0		19.0	<= 35.0
11. Succinate	17.3	H	11.6	<= 20.9
12. Fumarate	0.68	H	0.59	<= 1.35
13. Malate	0.8		1.4	<= 3.1
14. Hydroxymethylglutarate	1.8		3.6	<= 5.1

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	Results (mcg/mg creatinine)		Quintile Ranking (1st / 2nd / 3rd / 4th / 5th)	95% Reference Range
B-Complex Vitamin Markers ***(B1, B2, B3, B5, B6, Biotin)***				
15. a-Ketoisovalerate	0.16		0.25	<= 0.49
16. a-Ketoisocaproate	0.12		0.34	<= 0.52
17. a-Keto-ß-methylvalerate	0.23		0.38	<= 1.10
18. Xanthurenate	0.21		0.34	<= 0.46
19. ß-Hydroxyisovalerate	6.0		7.6	<= 11.5
Methylation Cofactor Markers ***(B12, Folate)***				
20. Methylmalonate	0.7		1.7	<= 2.3
21. Formiminoglutamate	0.1		1.2	<= 2.2
Cell Regulation Markers				
Neurotransmitter Metabolism Markers ***(Tyrosine, Tryptophan, B6, antioxidants)***				
22. Vanilmandelate	4.2	H	1.6 – 3.9	1.2-5.3
23. Homovanillate	3.2		1.9 – 5.7	1.4-7.6
24. 5-Hydroxyindoleacetate	2.1		2.1 – 5.6	1.6-9.8
25. Kynurenate	0.9		1.0	<= 1.5
26. Quinolinate	1.8		4.0	<= 5.8
27. Picolinate	2.9		8.0	2.8-13.5
Oxidative Damage and Antioxidant Markers ***(Vitamin C and other antioxidants)***				
28. p-Hydroxyphenyllactate	0.31		0.39	<= 0.66
29. 8-Hydroxy-2-deoxyguanosine	1.7		5.3	<= 7.6

(Units for 8-hydroxy-2-deoxyguanosine are ng/mg creatinine)

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	Results (mcg/mg creatinine)		Quintile Ranking (1st / 2nd / 3rd / 4th / 5th)	95% Reference Range
Toxicants and Detoxification				
Detoxification Indicators				
(Arg, NAC, Met, Mg, antioxidants)				
30. 2-Methylhippurate	0.083		0.084	<= 0.192
31. Orotate	0.27		0.69	<= 1.01
32. Glucarate	10.1	H	6.3	<= 10.7
33. a-Hydroxybutyrate	0.35	H	0.3	<= 0.9
34. Pyroglutamate	115	H	59	28-88
35. Sulfate	958		958 2347	690-2988
Compounds of Bacterial or Yeast/Fungal Origin				
Bacterial - general				
36. Benzoate	<DL*		0.6	<= 9.3
37. Hippurate	164		548	<= 1070
38. Phenylacetate	<DL*		0.11	<= 0.18
39. Phenylpropionate	<DL*			<= 0.06
40. p-Hydroxybenzoate	<DL*		1.1	<= 1.8
41. p-Hydroxyphenylacetate	6		19	<= 34
42. Indican	29		64	<= 90
43. Tricarballylate	0.18		0.73	<= 1.41
L. acidophilus / general bacterial				
44. D-Lactate	0.5		1.9	<= 4.3
Clostridial species				
45. 3,4-Dihydroxyphenylpropionate	<DL*			<= 0.05
Yeast / Fungal				
46. D-Arabinitol	38	H	36	<= 73

Creatinine = 190 mg/dL

* <DL = less than detection limit

** >LIN = greater than linearity limit

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Supplement Recommendation Summary

With knowledge of a patient's full medical history and concerns, the Organix Comprehensive Profile laboratory results may be used to help healthcare professionals create an individually optimized nutritional support program. Based strictly on the results from this test, the summary table below shows estimates of nutrient doses that may help to normalize nutrient-dependent metabolic functions.

Customized Vitamin and Mineral Formulation

Nutrients listed in this section are normally contained in a multi-vitamin preparation. "Base" amounts may be used to ensure health even when no abnormalities are found.
Customized preparations of the multi-vitamin/mineral formula shown below may be produced by compounding pharmacies.

	Daily Amounts	
Nutrient	**Base**	**Units Added**
Vitamin A*	2500 IU	
B-Carotene*	5500 IU	
Vitamin C	250 mg	1000 mg
Vitamin D*	400 IU	
Vitamin E	100 IU	300 IU
Vitamin K*	100 mcg	
Thiamin (B1)	5 mg	
Riboflavin (B2)	5 mg	10 mg
Niacin (B3)	25 mg	
Pyridoxine (B6)	15 mg	
Folic Acid (or 5-Methyl-THF)	400 mcg	
Vitamin B12	50 mcg	
Biotin	100 mcg	
Pantothenic Acid (B5)	25 mg	
Calcium citrate	500 mg	
Iodine*	75 mcg	
Magnesium	250 mg	
Zinc*	15 mg	
Selenium	100 mcg	100 mcg
Copper	1 mg	
Manganese*	5 mg	
Chromium	200 mcg	
Molybdenum*	25 mcg	
Boron*	1 mg	

* Nutrients with an asterisk are not modified based on the Organix test results.

MM02

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Other Items Indicated for individual supplementation

Various conditionally essential nutrients and other potentially beneficial interventions appear in this section only if relevant abnormalities are present. These ingredients are not included in the customized vitamin formula on the previous page.

Nutrient	Amount
Potential to benefit from probiotics	Low
Antifungals	As needed
Arginine	500 mg
Carnitine	400 mg
Coenzyme Q10	60 mg
Glycine	4000 mg
N-Acetylcysteine	750 mg
Need for other antioxidants	Moderate