



Accession Number: **A0711110004**

Reference Number:

Patient: **Sample Report**

Age: 57 Sex: F

Date of Birth: 12/25/1949

Date Collected: 11/11/07

Date Received: 11/11/07

Report Date: 11/12/07

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Reprinted: 1/2/08

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Ordering Physician:

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Metamatrix Research Account

3425 Corporate Way

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0091 Organix™ Comprehensive Profile

Summary of abnormal results:

	<u>Findings</u>	<u>Intervention Options</u>	<u>Common Metabolic Association</u>
<u>Nutrient Markers</u>			
<i>Fatty Acid Metabolism</i>			
Ethylmalonate	High	Carnitine, B2	Fatty acid oxidation
<i>Carbohydrate Metabolism</i>			
No Abnormality Found			
<i>Energy Production Markers</i>			
Citrate	High	Arginine, Lipoic Acid	Renal ammonia loading
Isocitrate	Very High	Arginine, Lipoic Acid	Renal ammonia loading
Succinate	High	CoQ10	ATP production
Fumarate	High	CoQ10	ATP production
Malate	High	CoQ10	ATP production
Hydroxymethylglutarate	High	CoQ10	HMG-CoA reductase inhibition
<i>B-Complex Vitamin Markers</i>			
a-Ketoisovalerate	Very High	Lipoic Acid, B1, B2, B3, B5	Impaired Valine metabolism
Xanthurenate	High	B6	Impaired Tryptophan metabolism
β-Hydroxyisovalerate	High	Biotin, B2	Impaired Isoleucine metabolism
<i>Methylation Cofactor Markers</i>			
Methylmalonate	High	B12	Adenosylcobalamin insufficiency
Formiminoglutamate	High	Folic acid	Tetrahydrofolate insufficiency
<u>Cell Regulation Markers</u>			
<i>Neurotransmitter Metabolism Markers</i>			
Vanilmandelate	Very High	Evaluate stress issues	Epi- & Norepinephrine turnover stimulation
5-Hydroxyindoleacetate	High	5-HTP (NOT if SSRI)	Serotonin turnover stimulation
Kynurenate	High	B6	Receptor antagonist
Quinolinate	High	Magnesium, Immune support	Receptor agonist
<i>Oxidative Damage and Antioxidant Markers</i>			
p-Hydroxyphenyllactate	Very High	Vitamin C, Vitamin E	Pro-oxidant and carcinogen

8-Hydroxy-2-deoxyguanosine High Vitamin C, Vitamin E DNA oxidation product

Toxicants and Detoxification

Detoxification Indicators

2-Methylhippurate	Very High	Glycine	Xylene exposure
Glucarate	High	N-acetylcysteine, Glutathione, Hepatic support	Hepatic Phase I and II detox

Compounds of Bacterial or Yeast/Fungal Origin

Bacterial - General

Hippurate	Very High	Glycine	Hepatic Phase II conjugation
p-Hydroxyphenylacetate	High	Probiotics	Intestinal Bacterial Overgrowth
Indican	Very High	Probiotics	Intestinal Bacterial Overgrowth

L. acidophilus / general bacteria

No Abnormality Found

Clostridial Species

No Abnormality Found

Yeast/Fungal

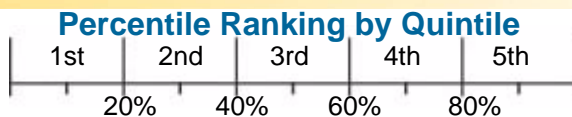
D-Arabinitol	Very High	Antifungals	Yeast Overgrowth
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A0711110004
Sample Report

0091 Organix™ Comprehensive Profile

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

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



95% Reference Interval

Ranges are for ages 13 and over

NUTRIENT MARKERS

Fatty Acid Metabolism
(Carnitine & B2)

Results
 ug/mg creatinine

1	Adipate	2.9		5.7	<= 10.3
2	Suberate	1.0		1.8	<= 3.3
3	Ethylmalonate	6.9	H	5.5	<= 8.5

Carbohydrate Metabolism
(B1, B3, Cr, Lipoic Acid, CoQ10)

4	Pyruvate	2.0		4.1	<= 7.1
5	Lactate	13.6		19.4	2.5 - 57.0
6	β-Hydroxybutyrate	1.6		2.8	<= 12.8

Energy Production (Citric Acid Cycle)
(B comp., Q10, Amino acids, Mg)

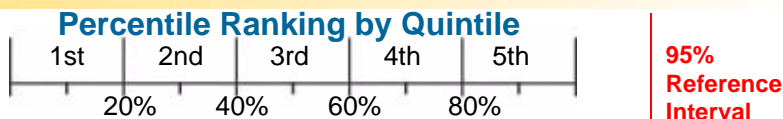
7	Citrate	992	H	948	127 - 1,550
8	Cis-Aconitate	68		76	29 - 122
9	Isocitrate	136	H	92	36 - 130
10	α-Ketoglutarate	3.0		27.8	2.6 - 60.0
11	Succinate	12.7	H	12.3	1.1 - 34.0
12	Fumarate	0.90	H	0.71	<= 1.40
13	Malate	2.6	H	2.3	<= 4.3
14	Hydroxymethylglutarate	7.2	H	6.8	<= 9.7

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B-Complex Vitamin Markers
(B1, B2, B3, B5, B6, Biotin)

Results
ug/mg creatinine

Item	Result	Status	Percentile	Reference Interval
15 a-Ketoisovalerate	1.23	H	0.60	<= 0.94
16 a-Ketoisocaproate	0.38		0.39	<= 0.58
17 a-Keto-β-Methylvalerate	1.2		1.6	<= 2.7
18 Xanthurenate	1.1	H	0.6	<= 1.2
19 β-Hydroxyisovalerate	9.8	H	9.0	<= 15.3

Methylation Cofactor Markers
(B12, Folate)

20 Methylmalonate	2.5	H	2.3	<= 3.4
21 Formiminoglutamate	1.54	H	1.21	<= 2.28

CELL REGULATION MARKERS

Neurotransmitter Metabolism Markers
(Tyrosine, Tryptophan, B6, antioxidants)

22 Vanilmandelate	6.3	H	1.1	3.8	0.4 - 5.3
23 Homovanillate	5.8		1.6	7.7	0.7 - 17.0
24 5-Hydroxyindoleacetate	6.7	H	1.5	6.3	0.7 - 26.0
25 Kynurenate	2.3	H		1.6	<= 2.5
26 Quinolate	10.3	H		10.2	<= 16.5

Oxidative Damage and Antioxidant Markers
(Vitamin C and other antioxidants)

27 p-Hydroxyphenyllactate	1.8	H		0.7	<= 1.4
28 8-Hydroxy-2-deoxyguanosine *	5.4	H		5.3	<= 7.6

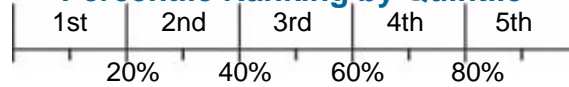
* Units for 8-Hydroxy-2-deoxyguanosine are ng/mg creatinine

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Percentile Ranking by Quintile



95% Reference Interval

Ranges are for ages 13 and over

TOXICANTS AND DETOXIFICATION

Detoxification Indicators

(Arg, NAC, Met, Mg and antioxidants)

Results
 ug/mg creatinine

Item	Result	Percentile	Reference Interval
29 2-Methylhippurate	0.117 H	0.047	<= 0.106
30 Orotate	0.8	1.0	<= 1.6
31 Glucarate	11.0 H	7.0	<= 11.9
32 a-Hydroxybutyrate	0.9	1.2	<= 2.2
33 Pyroglutamate	31	43	< 72
34 Sulfate	321	123 - 343	89 - 432

COMPOUNDS OF BACTERIAL OR YEAST/FUNGAL ORIGIN

Bacterial - general

35 Benzoate	1.6	2.5	<= 8.2
36 Hippurate	1,864 H	542	<= 1,099
37 Phenylacetate	< 0.06	0.06	<= 0.20
38 Phenylpropionate	< 0.5	0.5	<= 0.5
39 p-Hydroxybenzoate	0.3	1.2	<= 2.8
40 p-Hydroxyphenylacetate	28 H	20	<= 35
41 Indican	144 H	80	<= 124
42 Tricarballoylate	0.7	1.6	<= 3.6

L. acidophilus / general bacterial

43 D-Lactate	2.4	5.5	<= 11.0
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Clostridial species

44 3,4-Dihydroxyphenylpropionate	< 0.16	0.16	<= 0.40
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Yeast / Fungal

45 D-Arabinitol	121 H	32	<= 59
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Creatinine =41 mg/dl

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. All amounts are adult doses that should be adjusted for children according to body weight and indication of need.

Customized Vitamin and Mineral Formulation

Nutrients listed in this section are normally contained in a multi-vitamin preparation. "Base" amounts may be used for insurance of health even when no abnormalities are found.

Customized preparations of the multi-vitamin/mineral formula shown below may be produced by compounding pharmacies. If such a product is made according to these specifications each dose should be thoroughly stirred into a few ounces of water or diluted fruit juice to allow bubbles to form and avoid stomach bloating effects.

Nutrient	Daily Amounts	
	Base	Units Added
Vitamin A*	2500 IU	
B-Carotene*	5500 IU	
Vitamin C	250 mg	3000 mg
Vitamin D*	400 IU	
Vitamin E	100 IU	800 IU
Vitamin K*	100 mcg	
Thiamin (B1)	5 mg	5 mg
Riboflavin (B2)	5 mg	10 mg
Niacin (B3)	25 mg	20 mg
Pyridoxine (B6)	15 mg	100 mg
Folic Acid	400 mcg	800 mcg
Vitamin B12	50 mcg	800 mcg
Biotin	100 mcg	1000 mcg
Pantothenic Acid (B5)	25 mg	25 mg
Calcium	500 mg	
Iodine*	75 mcg	
Magnesium	250 mg	200 mg
Zinc*	15 mg	
Selenium	100 mcg	200 mcg
Copper	1 mg	
Manganese	5 mg	
Chromium	200 mcg	
Molybdenum*	25 mcg	
Boron*	1 mg	
Citric Acid*	200 mg	
Malic Acid*	200 mg	

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

MM03

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.

Potential to Benefit from Probiotics	Strong
Antifungals	As needed
Arginine	500 mg
Carnitine	400 mg
Coenzyme Q10	120 mg
Glycine	1000 mg
Lipoic Acid	100 mg
Need for other antioxidants	Strong

· These guidelines are intended as a starting point for the clinician who requested the test and are based only on the laboratory results included in this report. Final recommendations should be implemented by the clinician with consideration of medical history and current clinical observations.
 · These tests are not intended for the diagnosis of specific disorders.