



3425 Corporate Way
Duluth, GA 30096
770.446.5483 Fax 770.441.2237

Ordering Physician:

Metametrix

3425 Corporate Way
Duluth, GA 30096

Accession Number: **A1012080008**

Reference Number:

Patient: Sample Report

Age: 48 *Sex:* Female

Date of Birth: 02/05/1962

Date Collected: 12/7/10

Date Received: 12/8/10

Report Date: 12/8/10

Telephone: (770) 446-4583

Fax: (770) 441-2237

Reprinted: 3/2/11

Comment:

0400 Triad™ Profile

This report contains the following:

1. Laboratory data
 - Organix™ Comprehensive Profile
 - Amino Acid Analysis - 20 Plasma
 - IgG4 Food Antibodies (90 Antigens)
2. Triad Profile Analyte Pattern Analysis

To view your online Food Reaction Patient Guide, please visit our website at www.metametrix.com/triad and select the Interpretive Guide tab on the top row navigation.

0400 Triad™ Profile**Summary of abnormal results:**

	<u>Findings</u>	<u>Intervention Options</u>	<u>Metabolic Association</u>
Fatty Acid Metabolism			
Adipate	High	Carnitine, B2	Fatty acid oxidation
Carbohydrate Metabolism			
No Abnormality Found			
Energy Production Markers			
Fumarate	High	CoQ10	ATP production
Hydroxymethylglutarate	High	CoQ10	HMG-CoA reductase inhibition
B-Complex Vitamin Markers			
No Abnormality Found			
Methylation Cofactor Markers			
No Abnormality Found			
Neurotransmitter Metabolism Markers			
Vanilmandelate	Very Low	Support Adrenal Function	Epi- & Norepinephrine turnover inhibition
5-Hydroxyindoleacetate	Low	5-HTP	Serotonin turnover inhibition
Oxidative Damage and Antioxidant Markers			
No Abnormality Found			
Detoxification Indicators			
No Abnormality Found			
Bacterial - General			
Benzoate	High	Glycine	Hepatic Phase II conjugation
p-Hydroxybenzoate	High	Probiotics	Intestinal bacterial overgrowth
L. acidophilus/general bacteria			
No Abnormality Found			
Clostridial species			
No Abnormality Found			
Yeast/Fungal			
No Abnormality Found			
Essential Amino Acids			
Number of abnormal aminos	2	Customized free from amino acids	Amino Acid insufficiency
Neuroendocrine Metabolism			
No Abnormality Found			
Ammonia/Energy Metabolism			
No Abnormality Found			
Food Antibody Reactions (No. of foods)			
Mild (+1 and +2)	1	Use Elimination Diet	Intestinal hyperpermeability
Moderate (+3 and +4)	2	Use Elimination Diet	Intestinal hyperpermeability

Total Number >= +1

3

Glutamine

Intestinal hyperpermeability

A1012080008

Sample Report

Organix™ Comprehensive - Urine

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

Results are expressed as mcg/mg creatinine.

Ranges: Ages 13 and over.



**95%
Reference
Interval**

Nutrient Markers

Results

Fatty Acid Metabolism

(Carnitine & B2)

Item	Value	Unit	Quintile	Reference Interval
1 Adipate	6.0	H	5.2	<= 8.3
2 Suberate	1.6		1.7	<= 3.2
3 Ethylmalonate	1.5		3.6	<= 6.3

Carbohydrate Metabolism

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

Item	Value	Unit	Quintile	Reference Interval
4 Pyruvate	3.7		3.9	<= 6.4
5 L-Lactate	12		14	3 - 46
6 β-Hydroxybutyrate	<DL*		2.1	<= 9.9

Energy Production (Citric Acid Cycle)

(B comp., Q10, Amino acids, Mg)

Item	Value	Unit	Quintile	Reference Interval
7 Citrate	287		601	56 - 987
8 Cis-Aconitate	51	H	51	18 - 78
9 Isocitrate	52		98	39 - 143
10 a-Ketoglutarate	<DL*		19.0	<= 35.0
11 Succinate	11.5		11.6	<= 20.9
12 Fumarate	0.67	H	0.59	<= 1.35
13 Malate	0.4		1.4	<= 3.1
14 Hydroxymethylglutarate	4.6	H	3.6	<= 5.1

B-Complex Vitamin Markers

(B1, B2, B3, B5, B6, Biotin)

Item	Value	Unit	Quintile	Reference Interval
15 a-Ketoisovalerate	<DL*		0.25	<= 0.49
16 a-Ketoisocaproate	0.06		0.34	<= 0.52
17 a-Keto-β-Methylvalerate	<DL*		0.38	<= 1.10
18 Xanthurenate	0.04		0.47	<= 0.74
19 β-Hydroxyisovalerate	2.5		7.6	<= 11.5

Methylation Cofactor Markers

(B12, Folate)

Item	Value	Unit	Quintile	Reference Interval
20 Methylmalonate	0.5		1.7	<= 2.3
21 Formiminoglutamate	0.1		1.2	<= 2.2

Organix™ Comprehensive - Urine

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

Ranges: Ages 13 and over.

**95%
Reference
Interval**



Cell Regulation Markers

Results

Neurotransmitter Metabolism Markers

(Tyrosine, Tryptophan, B6, antioxidants)

Marker	Value	Quintile	Reference Interval
22 Vanilmandelate	0.6 L	1st	1.3 - 4.9
23 Homovanillate	2.1	2nd	1.6 - 10.9
24 5-Hydroxyindoleacetate	1.7 L	1st	1.6 - 9.8
25 Kynurenate	1.7	4th	<= 2.7
26 Quinolinat	1.4	1st	<= 5.8
27 Picolinate	2.9	1st	2.8 - 13.5

Oxidative Damage and Antioxidant Markers

(Vitamin C and other antioxidants)

Marker	Value	Quintile	Reference Interval
28 p-Hydroxyphenyllactate	0.75	4th	<= 1.45
29 8-Hydroxy-2-deoxyguanosine*	1.4	1st	<= 7.6

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

Toxicants and Detoxification

Detoxification Indicators

(Arg, NAC, Met, Mg and antioxidants)

Marker	Value	Quintile	Reference Interval
30 2-Methylhippurate	0.008	4th	<= 0.192
31 Orotate	0.09	1st	<= 1.01
32 Glucarate	2.9	2nd	<= 10.7
33 a-Hydroxybutyrate	0.3	5th	<= 0.9
34 Pyroglutamate	43	3rd	28 - 88
35 Sulfate	1,332	2nd	690 - 2,988

Organix™ Comprehensive - Urine

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

Ranges: Ages 13 and over.

Compounds of Bacterial or Yeast/Fungal Origin



Bacterial - general

Item	Value	Quintile Ranking	Reference Range
36 Benzoate	3.6 H	4th	<= 9.3
37 Hippurate	59	2nd	<= 1,150
38 Phenylacetate	<DL*	4th	<= 0.15
39 Phenylpropionate	<DL*	4th	<= 0.4
40 p-Hydroxybenzoate	2.50 H	4th	<= 2.08
41 p-Hydroxyphenylacetate	<DL*	4th	<= 34
42 Indican	38	4th	<= 74
43 Tricarballoylate	0.49	4th	<= 1.41

L. acidophilus / general bacterial

44 D-Lactate	0.3	2nd	<= 7.0
--------------	-----	-----	--------

Clostridial species

45 3,4-Dihydroxyphenylpropionate	<DL*	4th	<= 0.12
----------------------------------	------	-----	---------

Yeast / Fungal

46 D-Arabinitol	7	1st	<= 73
-----------------	---	-----	-------

Creatinine = 195 mg/dl

* <DL = less than detection limit

Amino Acid Analysis - 20 Plasma

Methodology: ION Exchange HPLC

Ranges: Ages 13 and over.

Essential Amino Acids

Limiting Amino Acids

Amino Acid	Results umol/L	Quintile Ranking	95% Reference Interval
1 Lysine	142	117 - 203	99 - 234
2 Methionine	19	16 - 26	14 - 30
3 Tryptophan	39	35 - 59	30 - 67

Branched Chain Amino Acids

4 Isoleucine	36 L	40 - 72	33 - 89
5 Leucine	71 L	80 - 137	68 - 161
6 Valine	185	143 - 240	123 - 282

Other Essential Amino Acids

7 Phenylalanine	45	43 - 64	39 - 74
8 Histidine	52	48 - 72	41 - 82
9 Threonine	138	76 - 151	63 - 181

Conditionally Essential Amino Acids

10 Arginine	51	48 - 96	37 - 114
11 Taurine	44	31 - 73	26 - 100
12 Glycine	184	162 - 348	136 - 430
13 Serine	86	66 - 115	57 - 133

Amino Acid Analysis - 20 Plasma

Methodology: ION Exchange HPLC

Ranges: Ages 13 and over.

	Results umol/L	Quintile Ranking					95% Reference Interval
		1st	2nd	3rd	4th	5th	
<u>Functional Categories</u>							
<u>Vascular Function</u>							
14 Arginine	51	48				96	37 - 114
15 Taurine	44	31				73	26 - 100
<u>Neurotransmitters and Precursors</u>							
16 Phenylalanine	45	43				64	39 - 74
17 Tyrosine	54	38				70	29 - 80
18 Tryptophan	39	35				59	30 - 67
19 Glutamic Acid	35	29				95	23 - 136
20 Taurine	44	31				73	26 - 100
<u>Sulfur Amino Acids (Glutathione - related)</u>							
21 Methionine	19	16				26	14 - 30
22 Taurine	44	31				73	26 - 100
<u>Urea Cycle and Ammonia Detoxification</u>							
23 Arginine	51	48				96	37 - 114
24 Citrulline	21	20				38	15 - 44
25 Ornithine	34	32				81	23 - 109
26 Glutamine	457	397				585	338 - 630
27 Asparagine	34	30				49	26 - 56
28 Aspartic Acid	5.0	4.8				9.7	4.2 - 12.5
<u>Ratios</u>							
29 Phenylalanine/Tyrosine	0.84					1.44	<= 1.44
30 Glutamic Acid/Glutamine	0.08	0.05				0.35	0.05 - 0.35
31 Tryptophan/LNAA*	0.076	0.061				0.127	0.061 - 0.127

*Large neutral amino acids (Leu+Ile+Val+Phe+Thr)

0075 IgG4 Food Antibodies (90 Antigens)

Methodology: ELISA

	Results ng/mL	Response Class		Results ng/mL	Response Class
<u>Dairy/Meat/Poultry</u>			Wheat	<10	
Beef	<10		<u>Legumes</u>		
Casein	32		Bean, String	12	
Chicken	<10		Lentil	<10	
Egg, White	10		Lima Bean	<10	
Egg, Yolk	19		Navy Bean	71	Mild +1
Lamb	18		Pea, Green	<10	
Milk	210	Mod +3	Peanut	22	
Pork	<10		Pinto Bean	220	Mod +3
Turkey	<10		Soybean	<10	
<u>Fish/Shellfish</u>			<u>Miscellaneous</u>		
Clam	<10		Aspergillus	<10	
Codfish	<10		Black Pepper	21	
Crab	<10		Chocolate	<10	
Flounder	<10		Cinnamon	15	
Halibut	9		Coffee	<10	
Lobster	<10		Ginger	11	
Mackerel	<10		Malt	21	
Oyster	<10		Tea	<10	
Salmon	<10		Vanilla	<10	
Shrimp	<10		Yeast, Baker's	19	
Trout	<10		Yeast, Brewer's	<10	
Tuna	<10		<u>Nuts/Seeds</u>		
<u>Fruits</u>			Almond	18	
Apple	<10		Cashew	13	
Apricot	8		Coconut	<10	
Banana	<10		Pecan	<10	
Blueberry	<10		Pistachio	<10	
Cantaloupe	13		Sesame	<10	
Cranberry	<10		Sunflower	<10	
Grape	<10		Walnut	8	
Grapefruit	10				
Honeydew	<10				
Lemon	<10				
Orange	<10				
Peach	14				
Pear	13				
Pineapple	<10				
Strawberry	<10				
Watermelon	<10				
<u>Grains</u>					
Barley	<10				
Corn	<10				
Oat	10				
Rice	<10				
Rye	<10				

Ordering Physician:
Metametrix

A1012080008
Sample Report

Vegetables

Asparagus	17
Avocado	<10
Broccoli	<10
Cabbage	<10
Carrot	<10
Cauliflower	30
Celery	<10
Cucumber	<10
Garlic	<10
Lettuce	<10
Mushroom	<10
Mustard Seed	8
Olive	<10
Onion	<10
Pepper, Green	<10
Potato	<10
Spinach	11
Sweet Potato	<10
Tomato	<10
Zucchini	<10

These test results are not for the diagnosis of disease. They are intended to provide nutritional guidelines to qualified healthcare professionals with full knowledge of patient history and concerns to assist in their design of an appropriate healthcare program.

Class Definitions	
Class	Cutoffs
Negative	0-40
Mild (+1/+2)	80/150
Moderate (+3/+4)	500/900
Severe (+5)	> 900

A multi-analyte report can provide greater insight about health risks and special nutrient needs. Patterns of abnormalities can reinforce the degree of significance indicated by a single measurement. Analytes from the various profiles in the Triad report are combined below into categories associated with clinical/metabolic conditions.

The categories included cover the most common areas of concern relevant to these profiles. Above each thermometer are listed the analytes used to calculate the degree of significance. An **X** appears when the patient result is in the fifth quintile of the population. An additional H or L next to an analyte indicates that the patient result is outside the reference limit or interval for that analyte.

The thermometer advances to the right as the number and severity of relevant abnormalities increases. The longer the filled bar, the greater the degree of significance or likelihood that a health threat may exist in that category. The preceding laboratory reports provide the detail upon which these thermometers are based.

Fatigue (Mitochondrial Impairment)

Isoleucine L	Leucine L	Phenylalanine	Adipate H
Suberate	aKG	Succinate	Malate
Xanthurenate	MeMalonate	FIGLU	



Low significance

High significance

Mental/Emotional

Tryptophan	Tyrosine	Xanthurenate	MeMalonate
FIGLU	Quinolinate	VMA L X	5-HIA L
HVA			



Low significance

High significance

Intestinal Hyperpermeability (Leaky Gut)

Positive IgG scores of 2+ or higher were found for 2 foods.



Low significance

High significance

Digestive Insufficiency

Histidine	Isoleucine L	Leucine L	Lysine
Methionine	Threonine	Valine	MeMalonate
Pyruvate	aKbMeVal	Glutamine	



Low significance

High significance

Toxic Exposure

2-MeHipp	Glucarate	Sulfate	Orotate
Citrate	Cis-Aconitate H	Isocitrate	Quinolate

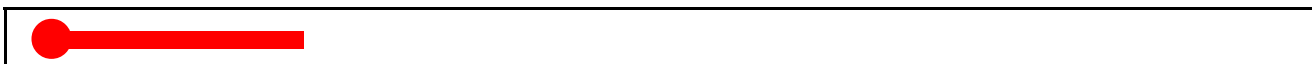


Low significance

High significance

Mitochondrial Functional Impairment

Adipate H	Suberate	Ethylmalonate	Pyruvate
L-Lactate	β-HB	Succinate	Fumarate H
Malate	HMG H		

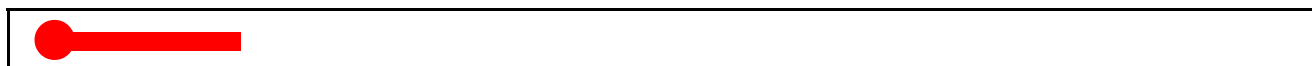


Low significance

High significance

Amino Acid Insufficiency

Arginine	Histidine	Isoleucine L	Leucine L
Lysine	Methionine	Phenylalanine	Threonine
Tryptophan	Valine	aKG	Succinate
Sulfate			



Low significance

High significance

Gut Dysbiosis

D-Arabinitol	PhAc	PhProp	phPhAc
Indican	Tricarb	D-Lactate	3,4-DHPP

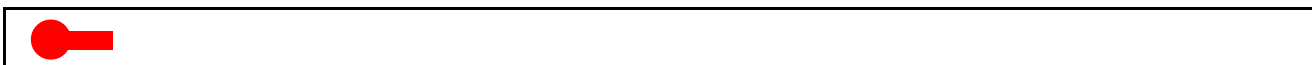


Low significance

High significance

Detoxification Capacity

Methionine	Glycine	Taurine	Sulfate
Pyroglutamate	AHB		



Low significance

High significance

Methylation

Methionine

Xanthurenate

MeMalonate

FIGLU



Low significance

High significance

<u>Abbreviatio</u>	<u>Analyte Name</u>	<u>Abbreviation</u>	<u>Analyte Name</u>
2-MeHipp	2-Methylhippurate	HVA	Homovanillate
5-HIA	5-Hydroxyindoleacetate	HMG	Hydroxymethylglutarate
8-OhdG	8-Hydroxy-2-deoxyguanosine	IgG	Immunoglobulin G*
AHB	a-Hydroxybutyrate	MeMalonate	Methylmalonate
aKbMeVal	a-Keto-β-Methylvalerate	PhAc	Phenylacetate
AKG	a-ketoglutarate	PhProp	Phenylpropionate
aKiCap	a-Ketoisocaproate	pHBenz	p-Hydroxybenzoate
aKiVal	a-Ketoisovalerate	pHPhAc	p-Hydroxyphenylacetate
BHB	β-Hydroxybutyrate	pHPhLac	p-Hydroxyphenyllactate
BHiVal	β-Hydroxyisovalerate	Tricarb	Tricarallylate
3,4-DHPP	3,4-Dihydroxyphenylpropionate	VMA	Vanilmandelate
FIGLU	Formiminoglutamate		

* Thermometers are affected when more than nine foods cause reactions of +2 or higher.

Customized Vitamin-Mineral Formula

With knowledge of a patient's full medical history and concerns, the Triad Profile laboratory results may be used to help 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 reduced for children according to body weight.

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.

	Daily Amounts	
	Base	Units Added
Vitamin A*	2500 IU	
B-Carotene*	5500 IU	
Vitamin C	250 mg	
Vitamin D*	400 IU	
Vitamin E (Mixed Tocopherols)	100 IU	
Vitamin K*	100 mcg	
Thiamin (B1)	5 mg	
Riboflavin (B2)	5 mg	
Niacin (B3)	25 mg	
Pyridoxine (B6)	15 mg	
Folic Acid (or 5-Methyl-THF)	400 mcg	800 mcg
Vitamin B12	50 mcg	
Biotin	100 mcg	
Pantothenic Acid (B5)	25 mg	
Calcium citrate	500 mg	400 mg
Iodine*	75 mcg	
Magnesium	250 mg	
Zinc*	15 mg	
Selenium	100 mcg	
Copper	1.5 mg	
Manganese*	5 mg	
Chromium	200 mcg	
Molybdenum*	25 mcg	
Boron*	1 mg	

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

MM01

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.

Amino acids listed on this page result from functional markers of individual amino acid insufficiency and do not reflect amino acids measured in plasma. Any amino acids that appear may be needed in addition to the customized amino acid formula on the following page.

Item	Amount
Potential to Benefit from Probiotics	Mild
Carnitine	400 mg
Coenzyme Q10	60 mg
Glycine	3000 mg
Need for Other Antioxidants	Minimal

Customized Free-Form Amino Acids

30 - Day Amino Acid Powder Supplement Recommendation

The table below shows a customized amino acid formula based on the results of your laboratory profile. The formula is optimized by adding amounts shown in the Grams Added column according to the relative positions of results found.

Directions: Adults mix 1 and 1/2 measuring teaspoon (5g) in juice or water 2 times daily between meals as a dietary supplement, or as directed by a health care provider. Children under 12 years old: 3/4 teaspoon 1-2 times daily between meals. Children under 5 years old: Use 1/4 teaspoon, 1-3 times daily; adjust for body weight.

	Grams Added	% of Formula	Active mg/day
L-Arginine HCl (80% active)	7	11.52	922
L-Histidine HCl (74% active)	2	11.34	839
L-Isoleucine	11	11.01	1,101
L-Leucine	13	14.42	1,442
L-Lysine HCl (80% active)	1	9.52	762
L-Methionine	1	6.35	635
L-Phenylalanine	3	11.08	1,108
Taurine	1	0.33	33
L-Threonine	0	6.33	633
L-Tryptophan	2	2.39	239
L-Valine	0	8.83	883
Pyridoxal-5-phosphate	0	0.27	23
Alpha-ketoglutaric acid	0	7.69	664

Total grams added	41
Base Formula amount	259
Total Weight	300

<input checked="" type="checkbox"/>	L-5-Hydroxytryptophan	0	0.71	48
-------------------------------------	-----------------------	---	------	----

This formula is intended to optimize essential and conditionally essential amino acid intake. Other non-essential amino acids can be produced in human tissues. Pyridoxal-5-phosphate (an active form of vitamin B6) and alpha-ketoglutaric acid are key factors needed for the body's utilization of amino acids.

The formula may be ordered as a powder that dissolves easily in beverages or may be added to foods such as applesauce. Other forms of supplemental dietary protein or amino acids may need to be restricted while using your customized formula. If enhanced energy levels prevent sleep, avoid bedtime use.

This formula is provided as a starting point that may guide decisions about medical treatment based on the test results. It is derived only from the laboratory results included in this report. Final recommendations should be based on consideration of the patient's medical history and current clinical condition.

In addition to the above customized amino acid formula, this patient may benefit from further use of single amino acids, as evidenced by profiles other than plasma amino acids. See the category, "Other Indicated Nutrients" on your Supplement Recommendation Summary Page.