

Accession Number:
Order Number:
Reference Number:
Patient:
Age:
Date of Birth:
Date Collected:
Date Received:
Report Date:
Telephone:
Fax:
Reprinted:
Comment:

0410 Triad Bloodspot Profile

This report contains the following:

1. Laboratory data
 - Organix™ Comprehensive Profile
 - Amino Acids 20 - Blood Spot
 - IgG Bloodspot Foods (30 Antigens)
2. Triad Profile Analyte Pattern Analysis

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

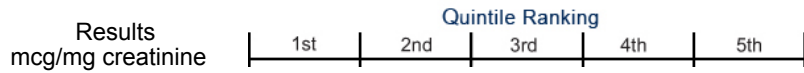
0410 Triad Bloodspot Profile**Summary of abnormal results:**

	<u>Findings</u>	<u>Intervention Options</u>	<u>Metabolic Association</u>
Fatty Acid Metabolism			
No Abnormality Found			
Carbohydrate Metabolism			
No Abnormality Found			
Energy Production Markers			
Cis-Aconitate	Very Low	Free-form amino acids	Amino Acid insufficiency
Isocitrate	Very Low	Free-form amino acids	Amino Acid insufficiency
B-Complex Vitamin Markers			
No Abnormality Found			
Methylation Cofactor Markers			
No Abnormality Found			
Neurotransmitter Metabolism Markers			
No Abnormality Found			
Oxidative Damage and Antioxidant Markers			
No Abnormality Found			
Detoxification Indicators			
Pyroglutamate	Very Low	Free-form amino acids	Amino Acid insufficiency
Bacterial - General			
No Abnormality Found			
L. acidophillus/general bacteria			
No Abnormality Found			
Clostridial species			
No Abnormality Found			
Yeast/Fungal			
No Abnormality Found			
Essential Amino Acids			
Number of abnormal aminos	2	Determine candidacy for amino acids	Failure to utilize
Neuroendocrine Metabolism			
No Abnormality Found			
Ammonia/Energy Metabolism			
Number of abnormal aminos	1	Determine candidacy for amino acids	Failure to utilize
Food Antibody Reactions (No. of foods)			
No Abnormality Found			

Organix® Comprehensive Profile - Urine

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

Ranges: Ages 13 and over.



**95%
Reference
Interval**

Nutrient Markers

Fatty Acid Metabolism

(Carnitine & B2)

Item	Result	Quintile Ranking	95% Reference Interval
1 Adipate	1.1	1st	<= 11.1
2 Suberate	0.4	1st	<= 4.6
3 Ethylmalonate	0.9	1st	<= 6.3

Carbohydrate Metabolism

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

Item	Result	Quintile Ranking	95% Reference Interval
4 Pyruvate	<DL*	1st	<= 6.4
5 L-Lactate	3.4	1st	1.6 - 57.1
6 β-Hydroxybutyrate	<DL*	1st	<= 9.9

Energy Production (Citric Acid Cycle)

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

Item	Result	Quintile Ranking	95% Reference Interval
7 Citrate	192	1st	56 - 987
8 Cis-Aconitate	13 L	1st	18 - 78
9 Isocitrate	25 L	1st	39 - 143
10 α-Ketoglutarate	12.2	4th	<= 35.0
11 Succinate	2.7	2nd	<= 20.9
12 Fumarate	0.08	2nd	<= 1.35
13 Malate	0.6	3rd	<= 3.1
14 Hydroxymethylglutarate	1.4	1st	<= 5.1

B-Complex Vitamin Markers

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

Item	Result	Quintile Ranking	95% Reference Interval
15 α-Ketoisovalerate	0.10	4th	<= 0.49
16 α-Ketoisocaproate	0.06	1st	<= 0.52
17 α-Keto-β-Methylvalerate	0.10	4th	<= 1.10
18 Xanthurenate	0.14	2nd	<= 0.46
19 β-Hydroxyisovalerate	1.5	1st	<= 11.5

Methylation Cofactor Markers

(B12, Folate)

Item	Result	Quintile Ranking	95% Reference Interval
20 Methylmalonate	0.4	1st	<= 2.3
21 Formiminoglutamate	<DL*	1st	<= 2.2

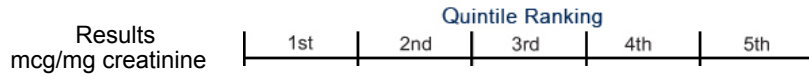
Ordering
Physician:

Date Received:
Date Reported:

Organix® Comprehensive Profile - Urine

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

Ranges: Ages 13 and over.



95%
Reference
Interval

Cell Regulation Markers

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

Item	Results	Quintile Ranking	95% Reference Interval
22 Vanilmandelate	3.5	1.6 - 3.9	1.2 - 5.3
23 Homovanillate	2.0	1.9 - 5.7	1.4 - 7.6
24 5-Hydroxyindoleacetate	3.9	2.1 - 5.6	1.6 - 9.8
25 Kynurenate	0.7	1.0	<= 1.5
26 Quinolinate	1.2	4.0	<= 5.8
27 Picolinate	5.0	8.0	2.8 - 13.5

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

28 p-Hydroxyphenyllactate	0.26	0.39	<= 0.66
29 8-Hydroxy-2-deoxyguanosine	4.0	5.3	<= 7.6

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

Toxicants and Detoxification

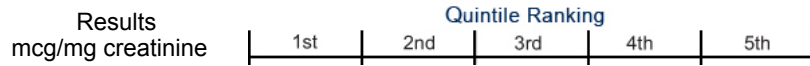
Detoxification Indicators
(Arg, NAC, Met, Mg and antioxidants)

30 2-Methylhippurate	<DL*	0.084	<= 0.192
31 Orotate	<DL*	0.69	<= 1.01
32 Glucarate	1.9	6.3	<= 10.7
33 a-Hydroxybutyrate	0.1	0.3	<= 0.9
34 Pyroglutamate	7 L	59	28 - 88
35 Sulfate	987	2,347	690 - 2,988

Organix® Comprehensive Profile - Urine

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

Ranges: Ages 13 and over.



**95%
Reference
Interval**

Compounds of Bacterial or Yeast/Fungal Origin

Bacterial - general

Compound	Results	Quintile Ranking	95% Reference Interval
36 Benzoate	0.6	4th	<= 9.3
37 Hippurate	104	2nd	<= 1,070
38 Phenylacetate	<DL*	1st	<= 0.18
39 Phenylpropionate	<DL*	1st	<= 0.06
40 p-Hydroxybenzoate	0.5	3rd	<= 1.8
41 p-Hydroxyphenylacetate	8	2nd	<= 34
42 Indican	46	4th	<= 90
43 Tricarballylate	0.31	2nd	<= 1.41

L. acidophilus / general bacterial

44 D-Lactate	0.7	4th	<= 4.3
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Clostridial species

45 3,4-Dihydroxyphenylpropionate	<DL*	1st	<= 0.05
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Yeast / Fungal

46 D-Arabinitol	26	4th	<= 73
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Creatinine =220 mg/dl

* <DL = less than detection limit

** >LIN = greater than linearity limit

Bloodspot Amino Acids 20 Profile

Methodology: ION Exchange HPLC

Ranges: Ages 13 and over

Essential Amino Acids

Limiting Amino Acids

1 Lysine

124



**95%
Reference
Interval**

63 - 220

2 Methionine

36

H



10 - 33

3 Tryptophan

43



24 - 52

Branched Chain Amino Acids

4 Isoleucine

51



28 - 96

5 Leucine

126



59 - 162

6 Valine

175



105 - 266

Other Essential Amino Acids

7 Phenylalanine

71



37 - 86

8 Histidine

67



22 - 99

9 Threonine

101



54 - 169

Conditionally Essential Amino Acids

10 Arginine

66



17 - 91

11 Taurine

311

H



124 - 282

12 Glycine

333



207 - 559

13 Serine

137

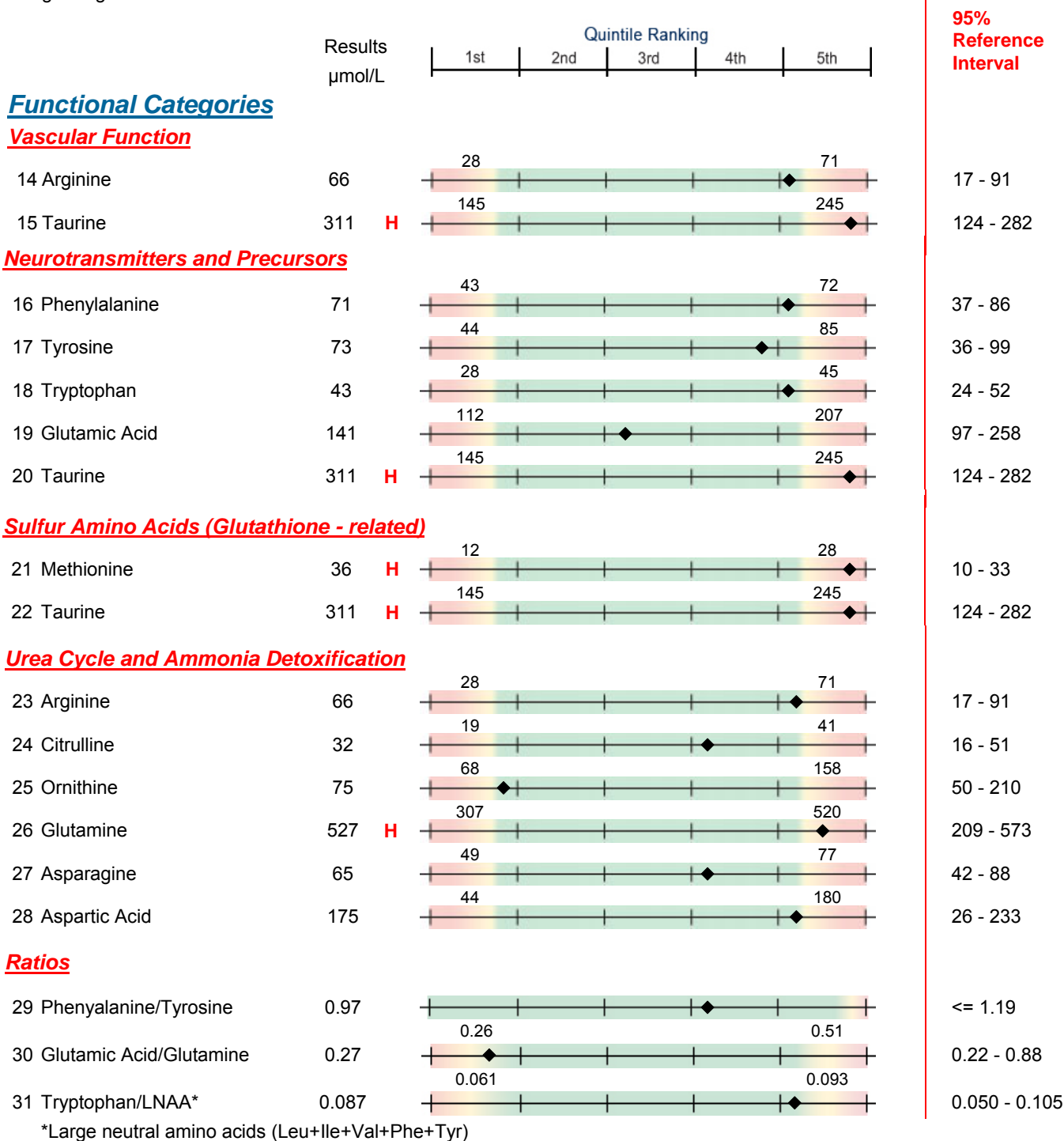


79 - 310

Bloodspot Amino Acids 20 Profile

Methodology: ION Exchange HPLC

Ranges: Ages 13 and over



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

Ordering Physician:

Date Received:

Date Reported:

Allergix® Bloodspot IgG4 Food Antibodies 30 Profile

Methodology: ELISA

Negative	Foods to Avoid		
	Mild +1 and +2	Moderate +3 and +4	Severe +5

- Almond
- Aspergillus
- Beef
- Cantaloupe
- Cashew
- Chicken
- Corn
- Crab
- Egg, Whole
- Garlic
- Lobster
- Milk
- Mustard Seed
- Oat
- Orange
- Pea, Green
- Peanut
- Pinto Bean
- Pork
- Rice
- Salmon
- Shrimp
- Soybean
- Strawberry
- Sunflower
- Tomato
- Tuna
- Turkey
- Walnut
- Wheat

Responses reflect IgG levels measured by ELISA with standardized food extracts. The assay yields semi-quantitative antibody concentrations for each food. The concentration readings are categorized into four reaction levels (Negative, Mild, Moderate, or Severe) corresponding to semi-quantitative responses (0/1, +1, +2, +3, +4, or +5), based on relative absorbance readings. The likelihood of adverse reactions to a given food increases as the response level for that food becomes more positive.

Triad Profile Analyte Pattern Analysis

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	Leucine	Phenylalanine	Adipate
Suberate	aKG	Succinate	Malate
Xanthurenate	MeMalonate	FIGLU	



Low significance

High significance

Mental/Emotional

Tryptophan	Tyrosine	Xanthurenate	MeMalonate
FIGLU	Quinolate	VMA	5-HIA
HVA			



Low significance

High significance

Intestinal Hyperpermeability (Leaky Gut)

Positive IgG scores of 1+ or higher were found for 0 foods.



Low significance

High significance

Digestive Insufficiency

Histidine	Isoleucine	Leucine	Lysine
Methionine	Threonine	Valine	MeMalonate
Pyruvate	aKbMeVal	Glutamine	



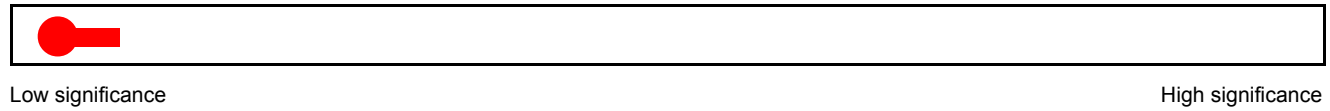
Low significance

High significance

Triad Profile Analyte Pattern Analysis

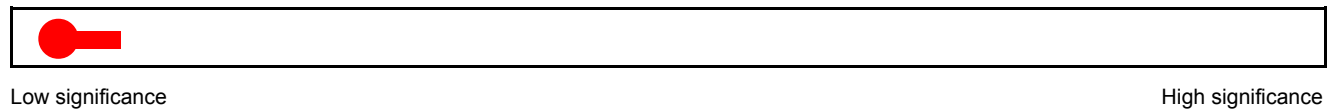
Toxic Exposure

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



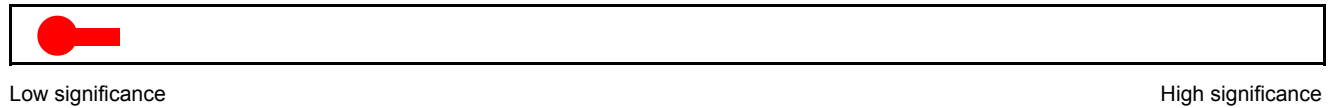
Mitochondrial Functional Impairment

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



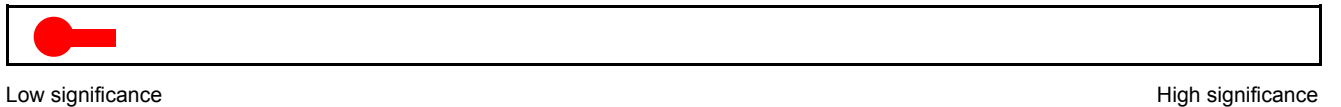
Amino Acid Insufficiency

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



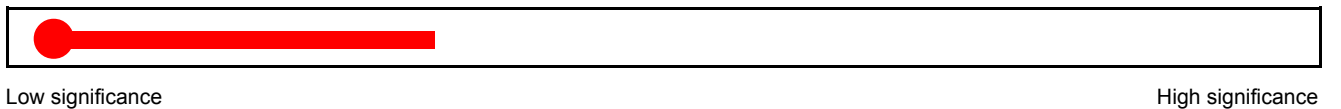
Gut Dysbiosis

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



Detoxification Capacity

Methionine	Glycine	Taurine	Sulfate
Pyroglutamate L X	AHB		



Triad Profile Analyte Pattern Analysis

Methylation

Xanthurenate

MeMalonate

FIGLU



Low significance

High significance

<u>Abbreviation</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	α -Hydroxybutyrate	MeMalonate	Methylmalonate
aKbMeVal	α -Keto- β -Methylvalerate	PhAc	Phenylacetate
AKG	α -ketoglutarate	PhProp	Phenylpropionate
aKiCap	α -Ketoisocaproate	pHBenz	p-Hydroxybenzoate
aKiVal	α -Ketoisovalerate	pHPhAc	p-Hydroxyphenylacetate
BHB	β -Hydroxybutyrate	pHPhLac	p-Hydroxyphenyllactate
BHiVal	β -Hydroxyisovalerate	Tricarb	Tricarballylate
3,4-DHPP	3,4-Dihydroxyphenylpropionate	VMA	Vanilmandelate
FIGLU	Formiminoglutamate		

* Thermometers are affected when more than nine foods cause reactions of +1 or higher.

Ordering Physician:

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.

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	
	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	
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	
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 Triad test results.

MM01

Ordering Physician:

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

Customized Free-Form Amino Acids

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)	0	10.60	848
L-Histidine HCl (74% active)	0	12.32	912
L-Isoleucine	0	8.48	848
L-Leucine	0	11.64	1,164
L-Lysine HCl (80% active)	1	10.94	875
L-Methionine	0	6.95	695
L-Phenylalanine	0	11.64	1,164
Taurine	0	0.00	0
L-Threonine	0	7.31	731
L-Tryptophan	0	1.99	199
L-Valine	0	10.20	1,020
Pyridoxal-5-phosphate	0	0.27	27
Alpha-ketoglutaric acid	0	7.69	766

Total grams added	1
Base Formula amount	299
Total Weight	300

✓ <input type="checkbox"/>	L-5-Hydroxytryptophan	0	0.67	40
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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.