

Ordering Physician:

Metametrix

1234 Main St.
Anywhere, GA 30096

Accession Number: A1201160025

Reference Number:

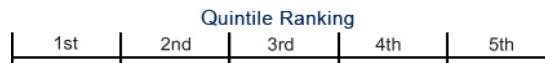
Patient: Sample Report
Age: 49 Sex: Female
Date of Birth: 02/05/1962
Date Collected: 1/15/12
Date Received: 1/16/12
Report Date: 1/16/12
Telephone: (770) 446-4583
Fax: (770) 441-2237
Reprinted: 11/15/12
Comment:

0113 Amino Acid Analysis - Bloodspot

Methodology: High Pressure Liquid Chromatography

Ranges: Ages 13 and over

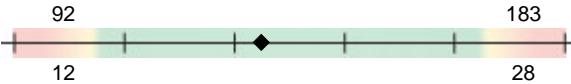
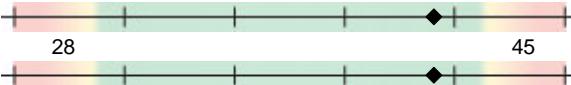
Results
μmol/L



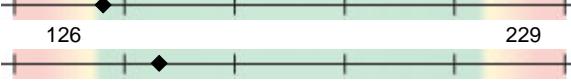
95%
Reference
Interval

Essential Amino Acids

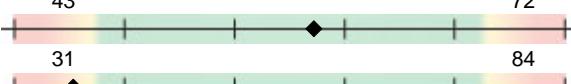
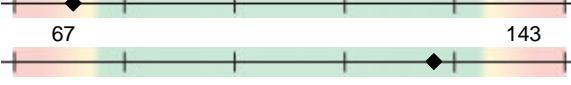
Limiting Amino Acids

1 Lysine	121		63 - 220
2 Methionine	24		10 - 33
3 Tryptophan	41		24 - 52

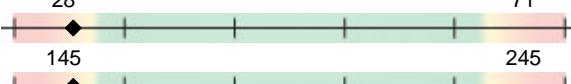
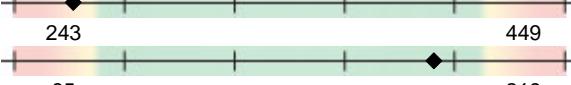
Branched Chain Amino Acids

4 Isoleucine	38		28 - 96
5 Leucine	74		59 - 162
6 Valine	141		105 - 266

Other Essential Amino Acids

7 Phenylalanine	56		37 - 86	
8 Histidine	26	L		22 - 99
9 Threonine	116			54 - 169

Conditionally Essential Amino Acids

10 Arginine	27	L		17 - 91
11 Taurine	143	L		124 - 282
12 Glycine	394			207 - 559
13 Serine	171			79 - 310

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Results
μmol/L



95%
Reference
Interval

Functional Categories

Vascular Function

14 Arginine	27	L	A horizontal scale with five vertical tick marks labeled '1st', '2nd', '3rd', '4th', and '5th' from left to right. The scale is divided into four colored segments: light red for the first segment, light green for the second, light blue for the third, and light orange for the fourth and fifth segments. A black diamond marker is positioned at the 28th percentile, which falls within the 3rd quintile (light green). The 1st quintile (light red) ranges from 17 to 91, and the 5th quintile (light orange) ranges from 124 to 282.	17 - 91
15 Taurine	143	L	A horizontal scale with five vertical tick marks labeled '1st', '2nd', '3rd', '4th', and '5th' from left to right. The scale is divided into four colored segments: light red for the first segment, light green for the second, light blue for the third, and light orange for the fourth and fifth segments. A black diamond marker is positioned at the 145th percentile, which falls within the 1st quintile (light red). The 1st quintile (light red) ranges from 124 to 282, and the 5th quintile (light orange) ranges from 124 to 282.	124 - 282

Neurotransmitters and Precursors

16 Phenylalanine	56	A horizontal scale with five vertical tick marks labeled '1st', '2nd', '3rd', '4th', and '5th' from left to right. The scale is divided into four colored segments: light red for the first segment, light green for the second, light blue for the third, and light orange for the fourth and fifth segments. A black diamond marker is positioned at the 43rd percentile, which falls within the 2nd quintile (light green). The 1st quintile (light red) ranges from 37 to 86, and the 5th quintile (light orange) ranges from 37 to 86.	37 - 86	
17 Tyrosine	48	A horizontal scale with five vertical tick marks labeled '1st', '2nd', '3rd', '4th', and '5th' from left to right. The scale is divided into four colored segments: light red for the first segment, light green for the second, light blue for the third, and light orange for the fourth and fifth segments. A black diamond marker is positioned at the 44th percentile, which falls within the 2nd quintile (light green). The 1st quintile (light red) ranges from 36 to 99, and the 5th quintile (light orange) ranges from 36 to 99.	36 - 99	
18 Tryptophan	41	A horizontal scale with five vertical tick marks labeled '1st', '2nd', '3rd', '4th', and '5th' from left to right. The scale is divided into four colored segments: light red for the first segment, light green for the second, light blue for the third, and light orange for the fourth and fifth segments. A black diamond marker is positioned at the 28th percentile, which falls within the 1st quintile (light red). The 1st quintile (light red) ranges from 24 to 52, and the 5th quintile (light orange) ranges from 24 to 52.	24 - 52	
19 Glutamic Acid	111	L	A horizontal scale with five vertical tick marks labeled '1st', '2nd', '3rd', '4th', and '5th' from left to right. The scale is divided into four colored segments: light red for the first segment, light green for the second, light blue for the third, and light orange for the fourth and fifth segments. A black diamond marker is positioned at the 112th percentile, which falls within the 3rd quintile (light green). The 1st quintile (light red) ranges from 97 to 258, and the 5th quintile (light orange) ranges from 97 to 258.	97 - 258
20 Taurine	143	L	A horizontal scale with five vertical tick marks labeled '1st', '2nd', '3rd', '4th', and '5th' from left to right. The scale is divided into four colored segments: light red for the first segment, light green for the second, light blue for the third, and light orange for the fourth and fifth segments. A black diamond marker is positioned at the 145th percentile, which falls within the 1st quintile (light red). The 1st quintile (light red) ranges from 124 to 282, and the 5th quintile (light orange) ranges from 124 to 282.	124 - 282

Sulfur Amino Acids (Glutathione - related)

21 Methionine	24	A horizontal scale with five vertical tick marks labeled '1st', '2nd', '3rd', '4th', and '5th' from left to right. The scale is divided into four colored segments: light red for the first segment, light green for the second, light blue for the third, and light orange for the fourth and fifth segments. A black diamond marker is positioned at the 12th percentile, which falls within the 1st quintile (light red). The 1st quintile (light red) ranges from 10 to 33, and the 5th quintile (light orange) ranges from 10 to 33.	10 - 33	
22 Taurine	143	L	A horizontal scale with five vertical tick marks labeled '1st', '2nd', '3rd', '4th', and '5th' from left to right. The scale is divided into four colored segments: light red for the first segment, light green for the second, light blue for the third, and light orange for the fourth and fifth segments. A black diamond marker is positioned at the 145th percentile, which falls within the 1st quintile (light red). The 1st quintile (light red) ranges from 124 to 282, and the 5th quintile (light orange) ranges from 124 to 282.	124 - 282

Urea Cycle and Ammonia Detoxification

23 Arginine	27	L	A horizontal scale with five vertical tick marks labeled '1st', '2nd', '3rd', '4th', and '5th' from left to right. The scale is divided into four colored segments: light red for the first segment, light green for the second, light blue for the third, and light orange for the fourth and fifth segments. A black diamond marker is positioned at the 28th percentile, which falls within the 3rd quintile (light green). The 1st quintile (light red) ranges from 17 to 91, and the 5th quintile (light orange) ranges from 17 to 91.	17 - 91
24 Citrulline	30	A horizontal scale with five vertical tick marks labeled '1st', '2nd', '3rd', '4th', and '5th' from left to right. The scale is divided into four colored segments: light red for the first segment, light green for the second, light blue for the third, and light orange for the fourth and fifth segments. A black diamond marker is positioned at the 19th percentile, which falls within the 1st quintile (light red). The 1st quintile (light red) ranges from 16 to 51, and the 5th quintile (light orange) ranges from 16 to 51.	16 - 51	
25 Ornithine	78	A horizontal scale with five vertical tick marks labeled '1st', '2nd', '3rd', '4th', and '5th' from left to right. The scale is divided into four colored segments: light red for the first segment, light green for the second, light blue for the third, and light orange for the fourth and fifth segments. A black diamond marker is positioned at the 68th percentile, which falls within the 3rd quintile (light green). The 1st quintile (light red) ranges from 50 to 210, and the 5th quintile (light orange) ranges from 50 to 210.	50 - 210	
26 Glutamine	379	A horizontal scale with five vertical tick marks labeled '1st', '2nd', '3rd', '4th', and '5th' from left to right. The scale is divided into four colored segments: light red for the first segment, light green for the second, light blue for the third, and light orange for the fourth and fifth segments. A black diamond marker is positioned at the 307th percentile, which falls within the 4th quintile (light blue). The 1st quintile (light red) ranges from 209 to 573, and the 5th quintile (light orange) ranges from 209 to 573.	209 - 573	
27 Asparagine	52	A horizontal scale with five vertical tick marks labeled '1st', '2nd', '3rd', '4th', and '5th' from left to right. The scale is divided into four colored segments: light red for the first segment, light green for the second, light blue for the third, and light orange for the fourth and fifth segments. A black diamond marker is positioned at the 49th percentile, which falls within the 1st quintile (light red). The 1st quintile (light red) ranges from 42 to 88, and the 5th quintile (light orange) ranges from 42 to 88.	42 - 88	
28 Aspartic Acid	107	A horizontal scale with five vertical tick marks labeled '1st', '2nd', '3rd', '4th', and '5th' from left to right. The scale is divided into four colored segments: light red for the first segment, light green for the second, light blue for the third, and light orange for the fourth and fifth segments. A black diamond marker is positioned at the 44th percentile, which falls within the 1st quintile (light red). The 1st quintile (light red) ranges from 26 to 233, and the 5th quintile (light orange) ranges from 26 to 233.	26 - 233	

Ratios

29 Phenylalanine/Tyrosine	1.17	A horizontal scale with five vertical tick marks labeled '1st', '2nd', '3rd', '4th', and '5th' from left to right. The scale is divided into four colored segments: light red for the first segment, light green for the second, light blue for the third, and light orange for the fourth and fifth segments. A black diamond marker is positioned at the 1.19th ratio, which falls within the 5th quintile (light orange). The 1st quintile (light red) ranges from <= 1.19, and the 5th quintile (light orange) ranges from <= 1.19.	<= 1.19	
30 Glutamic Acid/Glutamine	0.29	A horizontal scale with five vertical tick marks labeled '1st', '2nd', '3rd', '4th', and '5th' from left to right. The scale is divided into four colored segments: light red for the first segment, light green for the second, light blue for the third, and light orange for the fourth and fifth segments. A black diamond marker is positioned at the 0.26th ratio, which falls within the 1st quintile (light red). The 1st quintile (light red) ranges from 0.22 - 0.88, and the 5th quintile (light orange) ranges from 0.22 - 0.88.	0.22 - 0.88	
31 Tryptophan/LNAA*	0.122	H	A horizontal scale with five vertical tick marks labeled '1st', '2nd', '3rd', '4th', and '5th' from left to right. The scale is divided into four colored segments: light red for the first segment, light green for the second, light blue for the third, and light orange for the fourth and fifth segments. A black diamond marker is positioned at the 0.061th ratio, which falls within the 1st quintile (light red). The 1st quintile (light red) ranges from 0.050 - 0.105, and the 5th quintile (light orange) ranges from 0.050 - 0.105.	0.050 - 0.105

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

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Methodology: High Pressure Liquid Chromatography

Amino Acid Formula 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)	14	12.54	1,003
L-Histidine HCl (74% active)	37	21.48	1,590
L-Isoleucine	5	7.96	796
L-Leucine	7	10.98	1,098
L-Lysine HCl (80% active)	1	8.21	657
L-Methionine	0	5.16	516
L-Phenylalanine	0	8.64	864
Taurine	10	3.33	333
L-Threonine	0	5.42	542
L-Tryptophan	0	1.48	148
L-Valine	4	8.90	890
Pyridoxal-5-phosphate	0	0.27	20
Alpha-ketoglutaric acid	0	7.69	569
Total grams added	78		
Base Formula amount	222		
Total Weight	300		

✓ <input type="checkbox"/>	L-5-Hydroxytryptophan	0	0.49	30
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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.