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Accession #:	**A1301230032**	Date Collected:	01/22/2013
Reference #:		Date Received:	01/23/2013
Patient:	**Sample Report**		
Date of Birth:	02/05/1962	Date of Report:	01/23/2013
Age:	50	Telephone:	(770) 446-4583
Sex:	Female	Fax:	(770) 441-2237
Reprinted:	01/30/2013		
Comment:			

Ordering Physician:

John Doe, MD
1234 Main St.
Anywhere, GA 30096

0010 Amino Acid Analysis - 40 Plasma

Methodology: High Pressure Liquid Chromatography

Ranges are for ages 13 and over

		Results µmol/L		Quintile Ranking (1st / 2nd / 3rd / 4th / 5th)	95% Reference Range
Essential Amino Acids					
Limiting Amino Acids					
1.	Lysine	148		147 – 263	120-318
2.	Methionine	23		17 – 34	14-48
3.	Tryptophan	35	L	39 – 69	31-83
Branched Chain Amino Acids					
4.	Isoleucine	29	L	40 – 82	35-104
5.	Leucine	76	L	87 – 164	74-196
6.	Valine	161	L	167 – 316	146-370
Other Essential Amino Acids					
7.	Phenylalanine	45	L	48 – 77	42-95
8.	Histidine	77		63 – 97	57-114
9.	Threonine	122		88 – 172	73-216
Conditionally Essential Amino Acids					
10.	Arginine	77		43 – 107	29-137
11.	Taurine	73		36 – 99	29-136
12.	Glycine	237		192 – 418	155-518
13.	Serine	118		74 – 139	60-172

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Functional Categories					
Vitamin B6 Status Markers					
14.	α-aminoadipic acid	<0.5		0.5	<= 1.5
15.	α-Amino-n-butyric acid (α-ANB)	15		28	<= 39
16.	γ-aminobutyric acid (GABA)	<0.6		0.6	<= 1.5
17.	Cystathionine	<0.2		0.3	<= 0.3
Vascular Function					
18.	Arginine	77		43 – 107	29-137
19.	Taurine	73		36 – 99	29-136
20.	α-aminoadipic acid	<0.5		0.5	<= 1.5
Neurotransmitters and Precursors					
21.	Phenylalanine	45	L	48 – 77	42-95
22.	Tyrosine	59		45 – 87	38-110
23.	Tryptophan	35	L	39 – 69	31-83
24.	Glutamic Acid	42		33 – 136	24-214
25.	Taurine	73		36 – 99	29-136
Sulfur Amino Acids (Glutathione - related)					
26.	Methionine	23		17 – 34	14-48
27.	Cystathionine	<0.2		0.3	<= 0.3
28.	Homocystine	<0.6		0.6	<= 0.6
29.	Cystine	7.5		1.6 – 16.3	0.8-27.5
30.	Taurine	73		36 – 99	29-136

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Urea Cycle and Ammonia Detoxification				
31.	Arginine	77	43 – 107	29-137
32.	Citrulline	25	22 – 45	18-57
33.	Ornithine	73	36 – 86	28-117
34.	Glutamine	493	458 – 771	372-876
35.	Asparagine	57	39 – 71	31-90
36.	Aspartic Acid	4.2	3.5 – 8.6	2.9-12.6
Glycine, Serine and Related Amino Acids				
37.	Alanine	321	284 – 559	230-681
38.	Glycine	237	192 – 418	155-518
39.	Sarcosine	4.0	12.1	<= 19.5
40.	Serine	118	74 – 139	60-172
41.	Phosphoserine	<0.5	0.5	<= 0.8
42.	Ethanolamine	5.4	9.3	<= 11.6
43.	Phosphoethanolamine	3.6	4.6	<= 7.4
Collagen - Related Amino Acids				
44.	Proline	169	119 – 279	99-363
45.	Hydroxyproline	11	16	<= 26
46.	Lysine	148	147 – 263	120-318
47.	Hydroxylysine	<0.6	0.6	<= 0.6

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ß-Amino Acids and Derivatives					
48.	ß-Alanine	2.7		2.8	<= 5.0
49.	Histidine	77		63 – 97	57-114
50.	Carnosine	1.5		4.8	<= 6.3
51.	1-Methylhistidine	4.6		7.2	<= 9.8
52.	Anserine	30		36	<= 43
DNA (Thymine) Degradation					
53.	ß-Aminoisobutyric	<0.3		1.5	<= 3.2
Muscle-Specific Amino Acids					
54.	3-Methylhistidine	36		37	<= 52
Ratios					
55.	Phenylalanine/Tyrosine	0.90			<= 1.10
56.	Glutamic Acid/Glutamine	0.42	H	0.07 – 0.17	0.06-0.23
57.	Hydroxyproline/Proline	0.065			<= 0.152
58.	α-ANB/Leucine	0.11			<= 0.22
59.	Tryptophan/LNAA*	0.094		0.096 – 0.101	0.090-0.102

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

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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)	0	7.84	627
L-Histidine HCl (74% active)	0	9.11	674
L-Isoleucine	28	15.60	1,560
L-Leucine	16	13.94	1,394
L-Lysine HCl (80% active)	6	9.84	787
L-Methionine	0	5.13	513
L-Phenylalanine	11	12.27	1,227
Taurine	0	0.00	0
L-Threonine	1	5.73	573
L-Tryptophan	7	3.81	381
L-Valine	10	10.87	1,087
Pyridoxal-5-phosphate	0	0.27	20
Alpha-ketoglutaric acid	0	7.69	566

Total grams added	79
Base Formula amount	221
Total Weight	300

✓ ☐	L-5-Hydroxytryptophan	1	0.96	76

This formula is intended to optimize essential and conditionallly 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.