

_				Accession #: Order #: Patient: Date of Birth: Age: Sex: Reprinted: Comment:		Date Collected Date Received Date of Report Telephone: Fax:	:				
0113 Bloodspot Amino Acids 20 Profile											
Methodology: High Pressure Liquid Chromatography Ranges are for ages 13 and over											
		Results µmol/L		1st 2nd	Quintile Ranking 3rd 4	th 5th	95% Reference Range				
Ess	ential Amino Acids										
Limi	ting Amino Acids										
1.	Lysine	121	-	92		183	63-220				
2.	Methionine	24	-	12	+ +	28	10-33				
3.	Tryptophan	41	-	28		45	24-52				
Bran	nched Chain Amino Acids										
4.	Isoleucine	38	-	35	+ +	77	28-96				
5.	Leucine	74	-	71		139	59-162				
6.	Valine	141	_	126	+ +	229	105-266				
Othe	er Essential Amino Acids										
7.	Phenylalanine	56	-	43		72	37-86				
8.	Histidine	26	L -	31	+ +	84	22-99				
9.	Threonine	116		67		143	54-169				
Con	ditionally Essential Amino										
10.	Arginine	27	L -	28	+ +	71	17-91				
11.	Taurine	143	L -	145		245	124-282				
12.	Glycine	394	_	243		449	207-559				
13.	Serine	171	-	95	· ·	219	79-310				
CLIA ID New Yo	a Lab Lic. Code #067-007 # 11D0255349 T rk Clinical Lab PFI #4578 Clinical Lab Lic. #800008124	esting Performed by Ger	ova Dia	agnostics, Inc. 3425 Corpo Page 2	orate Way, Duluth, GA 3	Laboratory Dire	ector: Robert M. David, PhD				



Ordering Physician: Comment: Date of Report: Reprinted:

0113 Bloodspot Amino Acids 20 Profile

Methodology: High Pressure Liquid Chromatography

Ranges are for ages 13 and over 95% Reference Results **Quintile Ranking** µmol/L Range 1st 2nd 3rd 4th 5th **Vascular Function** 28 71 14. Arginine 27 17-91 145 245 15. Taurine 143 124-282 т **Neurotransmitters and Precursors** 72 43 37-86 16. Phenylalanine 56 44 85 36-99 17. Tyrosine 48 28 45 18. Tryptophan 41 24-52 112 207 19. **Glutamic Acid** 97-258 111 L 145 245 20. Taurine 143 L 124-282 Sulfur Amino Acids (Glutathione - related) 12 28 21. Methionine 24 10-33 145 245 Taurine 143 124-282 22. L **Urea Cycle and Ammonia Detoxification** 71 28 27 23. Arginine 17-91 L 41 19 24. Citrulline 30 16-51 68 158 25. Ornithine 78 50-210 520 307 26. Glutamine 379 209-573 49 77 27. Asparagine 52 42-88 180 44 28. Aspartic Acid 107 26-233 **Ratios** Phenylalanine/Tyrosine 29. 1.17 <= 1.19 0.26 0.51 30. Glutamic Acid/Glutamine 0.29 0.22-0.88 0.093 0.061 Tryptophan/LNAA* 0.122 0.050-0.105 31. н *Large neutral amino acids (Leu+lle+Val+Phe+Tyr) Georgia Lab Lic. Code #067-007 Laboratory Director: Robert M. David, PhD Testing Performed by Genova Diagnostics, Inc. 3425 Corporate Way, Duluth, GA 30096 CLIA ID# 11D0255349 New York Clinical Lab PFI #4578 Florida Clinical Lab Lic. #800008124 Page 3



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0113 Bloodspot Amino Acids 20 Profile

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 HCI (80% active)	14	12.54	1,003
L-Histidine HCI (74% active)	37	21.48	1,590
L-Isoleucine	5	7.96	796
L-Leucine	7	10.98	1,098
L-Lysine HCI (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		
L-5-Hydroxytryptophan	0	0.49	30

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.

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