

Ordering Physician:
 Metamatrix

3425 Corporate Way
 Duluth, GA 30096

0011 Amino Acid Analysis - 20 Plasma

Methodology: High Pressure Liquid Chromatography

Ranges: Ages 13 and over

Results
 umol/L



**95%
 Reference
 Interval**

Essential Amino Acids

Limiting Amino Acids

Rank	Amino Acid	Result (umol/L)	Quintile Ranking	95% Reference Interval
1.	Lysine	168	4th	99 - 234
2.	Methionine	24	5th	14 - 30
3.	Tryptophan	37	1st	30 - 67

Branched Chain Amino Acids

Rank	Amino Acid	Result (umol/L)	Quintile Ranking	95% Reference Interval
4.	Isoleucine	24 L	1st	33 - 89
5.	Leucine	74 L	1st	68 - 161
6.	Valine	182	3rd	123 - 282

Other Essential Amino Acids

Rank	Amino Acid	Result (umol/L)	Quintile Ranking	95% Reference Interval
7.	Phenylalanine	41 L	1st	39 - 74
8.	Histidine	52	2nd	41 - 82
9.	Threonine	93	2nd	63 - 181

Conditionally Essential Amino Acids

Rank	Amino Acid	Result (umol/L)	Quintile Ranking	95% Reference Interval
10.	Arginine	88	4th	37 - 114
11.	Taurine	60	5th	26 - 100
12.	Glycine	170	1st	136 - 430
13.	Serine	69	1st	57 - 133

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Functional Categories

Vascular Function

14. Arginine	88	48	96	37 - 114
15. Taurine	60	31	73	26 - 100

Neurotransmitters and Precursors

16. Phenylalanine	41 L	43	64	39 - 74
17. Tyrosine	57	38	70	29 - 80
18. Tryptophan	37	35	59	30 - 67
19. Glutamic Acid	94	29	95	23 - 136
20. Taurine	60	31	73	26 - 100

Sulfur Amino Acids (Glutathione - related)

21. Methionine	24	16	26	14 - 30
22. Taurine	60	31	73	26 - 100

Urea Cycle and Ammonia Detoxification

23. Arginine	88	48	96	37 - 114
24. Citrulline	37	20	38	15 - 44
25. Ornithine	52	32	81	23 - 109
26. Glutamine	378 L	397	585	338 - 630
27. Asparagine	30	30	49	26 - 56
28. Aspartic Acid	7.7	4.8	9.7	4.2 - 12.5

Ratios

29. Phenylalanine/Tyrosine	0.72	1.44	<= 1.44	
30. Glutamic Acid/Glutamine	0.25	0.05	0.35	0.05 - 0.35
31. Tryptophan/LNAA*	0.054 L	0.061	0.127	0.061 - 0.127

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

These test results in this report 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.

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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	8.37	670
L-Histidine HCl (74% active)	2	10.39	769
L-Isoleucine	40	20.03	2,003
L-Leucine	10	12.52	1,252
L-Lysine HCl (80% active)	0	8.37	670
L-Methionine	0	5.48	548
L-Phenylalanine	8	11.85	1,185
Taurine	0	0.00	0
L-Threonine	1	6.10	610
L-Tryptophan	3	2.57	257
L-Valine	0	8.05	805
Pyridoxal-5-phosphate	0	0.27	21
Alpha-ketoglutaric acid	0	7.69	605

Total grams added	64
Base Formula amount	236
Total Weight	300

<input checked="" type="checkbox"/>	L-5-Hydroxytryptophan	1	0.72	51
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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.