

## **0010 Amino Acid Analysis - 40 Plasma**

This report contains new reference ranges due to laboratory method revision. New charts are used to show quintile positions within the reference population. Horizontal bars on the charts indicate ranges below detection limits. When results are below detection limits, no point is printed on the chart.

Ordering Physician:

Metamatrix Staff & Family

3425 Corporate Way  
 Duluth, GA 30096

**0010 Amino Acid Analysis - 40 Plasma**

Methodology: High Pressure Liquid Chromatography

Ranges are for ages 13 and over

**Percentile Ranking by Quintile**



**Essential Amino Acids**

**Essential Amino Acid Derivatives**

**Neuroendocrine Metabolism**

Accession Number: **A0808120002**  
 Reference Number:  
 Patient: **Sample Report**  
 Age: **46** Sex: **Male**  
 Date of Birth: **02/05/1962**  
 Date Collected: **8/10/08**  
 Date Received: **8/12/08**  
 Report Date: **9/5/08**  
 Telephone: **(770) 446-5483**  
 Fax: **(678) 638-2821**  
 Reprinted: **9/12/08**  
 Comment:

Ordering Physician:

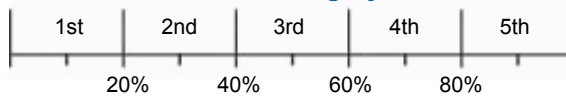
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**Percentile Ranking by Quintile**



**95%  
Reference  
Interval**

**Ammonia/Energy Metabolism**

Item	Value	Flag	Reference Interval
16 a-Aminoadipic Acid	<0.5		<= 1.9
17 Asparagine	32	L	28 - 82
18 Aspartic Acid	4.2		2.3 - 14.0
19 Citrulline	30		16 - 54
20 Glutamic Acid	179		18 - 238
21 Glutamine	391	L	358 - 1,040
22 Ornithine	49		24 - 118

**Sulfur Metabolism**

23 Cystine	2.5		<= 22.2
24 Cystathionine	<0.3		<= 1.2
25 Homocystine	<0.6		<= 1.0

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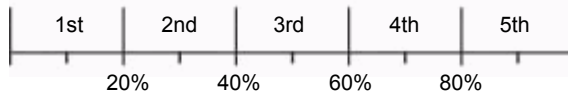
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**95%  
Reference  
Interval**

**Additional Metabolites**

Metabolite	Value	Reference Interval
26 a-Amino-N-Butyric Acid	17	<= 34
27 Alanine	471	209 - 711
28 Anserine	23	<= 37
29 β-Alanine	2.1	<= 9.0
30 β- Aminoisobutyric Acid	<0.3	<= 4.3
31 Carnosine	<0.4	<= 5.4
32 Ethanolamine	4.9	<= 11.8
33 Hydroxylysine	<0.6	<= 0.6
34 Hydroxyproline	11	<= 32
35 1-Methylhistidine	9	<= 53
36 3-Methylhistidine	7.9 <b>H</b>	<= 9.5
37 Phosphoethanolamine	4.0 <b>H</b>	<= 6.0
38 Phosphoserine	<0.5	<= 0.5
39 Proline	162	90 - 359
40 Sarcosine	10.8	2.0 - 21.9

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**30 - Day Amino Acid Powder Supplement Recommendation**

The table below shows the recommended custom amino acid formula based on the results of your laboratory test for fasting plasma amino acid levels. The Base Formula contains a constant percentage of the essential amino acids. To achieve your optimal formula, additional amounts of individual amino acids ("Grams Added") are added and the "Base Formula amount" is adjusted to assure the total appropriate amount of powder. The final percentage in your powder will be different from those in the table because of the addition of specific amounts of each essential amino acid.

Directions: Adults mix 1 and 1/2 measuring teaspoon (5g) into juice or water 2 times daily between meals as a dietary supplement, or as directed by a health care practitioner. Children under 12 years old: 1 teaspoon 1-2 times daily between meals.

Base Formula amount:	277 gm	% of Base	Grams Added	mg per day
5-Hydroxytryptophan*		0.00 % +	1	33
Arginine		9.40 % +	0	868
Histidine		10.10 % +	0	933
Isoleucine		9.40 % +	0	868
Leucine		12.90 % +	0	1191
Lysine		9.40 % +	0	868
Methionine		7.70 % +	0	711
Phenylalanine		12.90 % +	0	1191
Taurine		0.00 % +	10	333
Threonine		8.10 % +	1	781
Valine		11.10 % +	0	1025
Pyridoxal-5-phosphate		.3 % +	0	28
Alpha-ketoglutaric acid		8.5 % +	0	785
*...or L-Tryptophan (Requires doctor's order)			5	167

Only the essential amino acids are included in this formula because from these all of the other amino acids can be formed, raising the levels of any that might be low. Pyridoxal-5-phosphate (an active form of B6) and alpha-ketoglutaric acid cofactor nutrients 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.

· These guidelines are intended as a starting point for the clinician who requested the test and are based only on the laboratory results included in this report. Final recommendations should be implemented by the clinician with consideration of medical history and current clinical observations.