



LAB #: B\$\$\$\$\$!\$\$\$\$\$
PATIENT: GUa d`YDUjYbh
ID: D5 H9 BH!G-00077
SEX: Male
AGE: 25

CLIENT #: %& ()
DOCTOR:
8 cWcfij'8 ULE-bW
' +)) `=]bc]g'5 j Y"
GH"7\ Uf`YgZ=@* \$%+(

Amino Acids; Plasma

SPECIMEN VALIDITY			
	RESULT	REFERENCE INTERVAL	PERCENTILE
			5th 32 nd
Glutamine/Glutamate	6.5	> 8.5	
Asparagine/Aspartate	7.2	> 7.5	
			68 th 95 th
Ammonia	39 μ M/dL	< 30	
Specimen Validity Index			

ESSENTIAL / CONDIIONALLY INDISPENSABLE AMINO ACIDS					
	RESULT μ M/dL	REFERENCE INTERVAL	PERCENTILE		
			2.5 th 16 th 50 th 84 th 97.5 th		
Methionine	2.8	1.6– 3.6			
Taurine	5.4	4.5– 16			
Lysine	21	15– 26			
Threonine	15	9– 20			
Tryptophan	5.5	3– 7			
Phenylalanine	6.2	4– 9			
Leucine	18	7.5– 18			
Isoleucine	7.8	4– 10			
Valine	29	13– 31			
Arginine	7.8	4.5– 13			
Histidine	9.3	5– 10			

NONESENTIAL AMINO ACIDS					
	RESULT μ M/dL	REFERENCE INTERVAL	PERCENTILE		
			2.5 th 16 th 50 th 84 th 97.5 th		
Alanine	32	23– 64			
Aspartate	0.43	0.15– 1.6			
Asparagine	3.1	3.5– 7.5			
Glutamine	32	36– 63			
Glutamate	4.9	2– 15			
Cystine	5.9	2– 6.5			
Glycine	26	15– 50			
Tyrosine	8.5	4– 10			
Serine	9.5	6– 16			
Proline	28	10– 31			

GASTROINTESTINAL MARKERS							
	RESULT μM/dL	REFERENCE INTERVAL	PERCENTILE				
			2.5 th	16 th	50 th	84 th	97.5 th
Ethanolamine	1.3	0.2– 1.3					
Threonine	15	9– 20					
Tryptophan	5.5	3– 7					
			68th		95th		
Alpha-Aminoadipate	0.18	< 0.3					
Beta-alanine	0.4	< 1					
Beta-aminoisobutyrate	0.11	< 0.5					
Anserine	< dl	< 0.1					
Carnosine	< dl	< 0.1					
Gamma-aminobutyrate	< dl	< 0.1					
Hydroxyproline	1.3	< 3					
MAGNESIUM DEPENDANT MARKERS							
	RESULT μM/dL	REFERENCE INTERVAL	PERCENTILE				
			2.5 th	16 th	50 th	84 th	97.5 th
Citrulline	3.8	1.9– 6.4					
Ethanolamine	1.3	0.2– 1.3					
Phosphoethanolamine	0.13	0.08– 1					
Phosphoserine	0.007	0.013– 0.025					
Serine	9.5	6– 16					
Taurine	5.4	4.5– 16					
			68th		95th		
Methionine Sulfoxide	0.61	< 1					
B6, B12, & FOLATE DEPENDANT MARKERS							
	RESULT μM/dL	REFERENCE INTERVAL	PERCENTILE				
			2.5 th	16 th	50 th	84 th	97.5 th
Cystine	5.9	2– 6.5					
Alpha-amino-N-butyrate	3.3	1– 3.5					
Histidine	9.3	5– 10					
Serine	9.5	6– 16					
			68th		95th		
Cystathionine	< dl	< 0.05					
Alpha-aminoadipate	0.18	< 0.3					
Beta-aminoisobutyrate	0.11	< 0.5					
Beta-alanine	0.4	< 1					
Homocystine	< dl	< 0.05					
Sarcosine	1.3	< 0.8					
1-Methylhistidine	0.53	< 1.5					
3-Methylhistidine	1.8	< 4.5					



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DETOXIFICATION MARKERS					
	RESULT μM/dL	REFERENCE INTERVAL	PERCENTILE		
			2.5 th	16 th	50 th 84 th 97.5 th
Methionine	2.8	1.6– 3.6			
Cystine	5.9	2– 6.5			
Taurine	5.4	4.5– 16			
Glutamine	32	36– 63			
Glycine	26	15– 50			
Aspartate	0.43	0.15– 1.6			

NEUROLOGICAL MARKERS					
	RESULT μM/dL	REFERENCE INTERVAL	PERCENTILE		
			2.5 th	16 th	50 th 84 th 97.5 th
Glutamine	32	36– 63			
Phenylalanine	6.2	4– 9			
Tyrosine	8.5	4– 10			
Tryptophan	5.5	3– 7			
Taurine	5.4	4.5– 16			
Cystine	5.9	2– 6.5			
			68 th 95 th		
Beta-alanine	0.4	< 1			
Cystathionine	< dl	< 0.05			

UREA CYCLE METABOLITES					
	RESULT μM/dL	REFERENCE INTERVAL	PERCENTILE		
			2.5 th	16 th	50 th 84 th 97.5 th
Arginine	7.8	4.5– 13			
Aspartate	0.43	0.15– 1.6			
Citrulline	3.8	1.9– 6.4			
Ornithine	11	4– 16			
Urea	290	230– 880			
Glutamine	32	36– 63			
Asparagine	3.1	3.5– 7.5			

SPECIMEN DATA	
Comments:	
Date Collected: 12/1/2011	Methodology: LC MS/MS
Date Received: 12/6/2011	NH ₄ by Automated Chem Analyzer
Date Completed: 12/7/2011	Reference ranges are representative of a healthy population under fasting (6-8 hours) conditions. v3



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SUPPLEMENTATION SCHEDULE

L-configured Amino Acids	Total Daily Oral Dose
Tryptophan	295 mg
Arginine	930 mg
Histidine	735 mg
Isoleucine	930 mg
Leucine	1280 mg
Lysine	930 mg
Methionine	765 mg
Phenylalanine	1280 mg
Threonine	805 mg
Valine	1290 mg
Pyridoxal-5-phosphate	30 mg
Alpha-ketoglutarate	650 mg
Taurine	85 mg

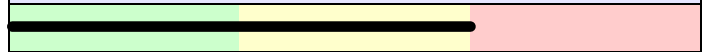
Directions: Amino acids are best taken between meals unless instructed differently by your physician. Twice daily, dissolve one and ½ teaspoons (5grams) into a small amount of warm water, add water or juice, stir and drink immediately. For children under 12 years of age, consume one teaspoon 1-2 times per day; the amino acid formula can be added to applesauce but should not be mixed with other beverages or foods that contain protein (e.g. milk, yogurt). If you experience heightened energy that interferes with sleep, take the second daily dose earlier in the day. Patients typically take the amino acid supplement daily for up to 3 months before repeating the Plasma Amino Acid Test to re-evaluate the need for supplementation.

PRESUMPTIVE NEEDS / IMPLIED CONDITIONS

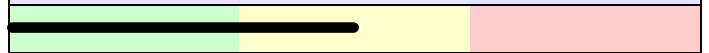
NEED FOR VITAMIN B6



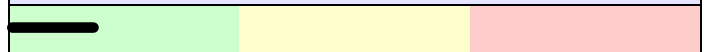
NEED FOR FOLATE, VITAMIN B12



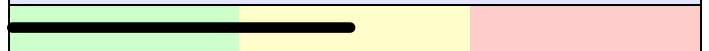
NEED FOR MAGNESIUM



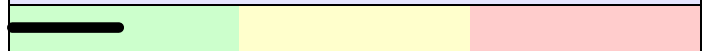
SUSCEPTIBILITY TO VASCULAR DISEASE



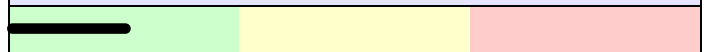
ABNORMAL INTESTINAL MICROFLORA



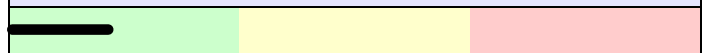
MALDIGESTION / MALABSORPTION



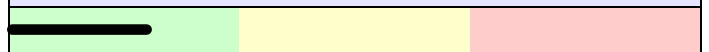
IMPAIRED DETOXIFICATION



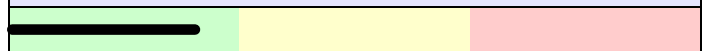
NEUROLOGICAL DISORDERS



NITROGEN INSUFFICIENCY



EXCESSIVE PROTEIN



OXIDATIVE STRESS

