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Anna

Date: 12/26/2012
(Accession #A1212270114)

Next Test Due: 6/26/2013

LabAssist™ Plasma Amino, Plasma Fatty Acid, Organics Report
Practitioner

Printed on Tuesday, January 8, 2013 for:

Anna

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Basic Status High/Low - Plasma Amino Acids on 12/26/2012

Anna

Plasma Amino, Plasma Fatty Acid, Organics Date: 12/26/2012

Female / Age: 60

Anna Salanti (2718)

Client ID:555986644 (8322)

503-977-2660

The % Status is the weighted deviation of the laboratory result.

Low Results

-80	-60	-40	-20	0		% Status	Result	Low	High	
						-62.28	L	50.00	57.00	114.00
						-52.48	L	146.00	155.00	518.00
						-52.00	L	2.80	3.00	13.00
						-50.70	L	72.00	73.00	216.00
						-44.92	L	34.00	31.00	90.00
						-44.64	L	399.00	372.00	876.00
						-44.12	L	16.00	14.00	48.00
						-42.86	L	68.00	60.00	172.00
						-42.45	L	46.00	42.00	95.00
						-41.29	L	122.00	99.00	363.00
						-39.81	L	40.00	29.00	137.00
						-36.11	L	48.00	38.00	110.00
						-34.43	L	93.00	74.00	196.00
						-34.06	L	46.00	35.00	104.00
						-32.83	L	154.00	120.00	318.00
						-30.00	L	1.40	0.00	7.00
						-27.23	L	197.00	146.00	370.00
						-27.04	L	7.20	1.00	28.00
						-26.92	L	27.00	18.00	57.00
						-25.61	L	340.00	230.00	681.00
						-25.00	L	0.50	0.00	2.00

-25%

High Results

-100	-50	0	50	100		% Status	Result	Low	High

-25%

25%

Basic Status High/Low - Plasma Fatty Acids on 12/26/2012

Anna

Plasma Amino, Plasma Fatty Acid, Organics Date: 12/26/2012

Female / Age: 60

Anna

(2718)

The % Status is the weighted deviation of the laboratory result.

Low Results

-80	-60	-40	-20	0	% Status	Result	Low	High
					-50.00 L	1.40	1.40	4.00
					-45.51 L	6.80	6.40	15.30
					-45.12 L	0.88	0.84	1.66
					-40.10 L	4.70	3.70	13.80
					-38.33 L	27.00	20.00	80.00
					-32.14 L	5.30	3.30	14.50
					-31.63 L	2.10	1.20	6.10

-25%

High Results

-20	0	20	40	60	% Status	Result	Low	High
					56.49 H	223.00	59.00	213.00
					50.00 H	0.40	0.00	0.40
					49.33 H	1.49	0.00	1.50
					35.48 H	0.53	0.00	0.62
					34.46 H	16.30	0.00	19.30
					32.95 H	474.00	294.00	511.00
					28.62 H	11.40	0.00	14.50
					27.94 H	87.00	34.00	102.00
					26.00 H	0.38	0.00	0.50
					25.00 H	0.27	0.00	0.36

25%

Basic Status High/Low - Urine Organic Acids on 12/26/2012

Anna

Plasma Amino, Plasma Fatty Acid, Organics Date: 12/26/2012

Female / Age: 60

Anna

(2718)

The % Status is the weighted deviation of the laboratory result.

Low Results

	-80	-60	-40	-20	0					
							% Status	Result	<i>Low</i>	<i>High</i>
							-48.74	L	0.24	19.00
							-40.48	L	2.00	3.90
							-36.25	L	0.05	0.40
							-32.61	L	0.40	2.30

-25%

High Results

	-50	0	50	100	150					
							% Status	Result	<i>Low</i>	<i>High</i>
							401.43	H	17.90	5.60
							296.38	H	2.39	0.69
							288.89	H	122.00	36.00
							250.00	H	0.12	0.04
							180.17	H	26.70	11.60
							142.59	H	1144.00	594.00
							125.00	H	2.10	1.20
							85.00	H	54.00	40.00
							71.43	H	1.70	1.40
							58.64	H	2467.00	2347.00
							50.00	H	0.30	0.30
							46.70	H	583.00	601.00
							45.00	H	0.57	0.60
							44.92	H	56.00	59.00
							42.50	H	3.70	4.00
							41.67	H	3.30	3.60
							27.97	H	0.46	0.59
							27.36	H	4.10	5.30
							26.47	H	1.30	1.70
							26.47	H	1.30	1.70
							26.27	H	84.00	98.00
							26.19	H	4.80	6.30

-25%

25%

Basic Status Alphabetic - Plasma Amino Acids on 12/26/2012

Anna

Plasma Amino, Plasma Fatty Acid, Organics Date: 12/26/2012

Female / Age: 60

Anna

(2718)

The % Status is the weighted deviation of the laboratory result relative to the range.

-100	-50	0	50	100	% Status	Result	Low	High	
		█			1-Methylhistidine	5.77	29.00	0.00	52.00
		█			3-Methylhistidine	22.00	7.20	0.00	10.00
		█			a-Amino adipic Acid	-25.00 L	0.50	0.00	2.00
		█			a-Amino-N-Butyric Acid	1.28	20.00	0.00	39.00
		█			Alanine	-25.61 L	340.00	230.00	681.00
		█			Anserine	3.49	23.00	0.00	43.00
		█			Arginine	-39.81 L	40.00	29.00	137.00
		█			Asparagine	-44.92 L	34.00	31.00	90.00
		█			Aspartic Acid	-52.00 L	2.80	3.00	13.00
		█			Carnosine	5.00	3.30	0.00	6.00
		█			Citrulline	-26.92 L	27.00	18.00	57.00
		█			Cystine	-27.04 L	7.20	1.00	28.00
		█			Ethanolamine	-11.67	4.60	0.00	12.00
		█			Glutamic Acid	-23.16	75.00	24.00	214.00
		█			Glutamine	-44.64 L	399.00	372.00	876.00
		█			Glycine	-52.48 L	146.00	155.00	518.00
		█			Glycine/Serine Ratio	-6.86	2.15	1.50	3.00
		█			Histidine	-62.28 L	50.00	57.00	114.00
		█			Homocystine	10.00	0.60	0.00	1.00
		█			Hydroxylysine	10.00	0.60	0.00	1.00
		█			Hydroxyproline	-11.54	10.00	0.00	26.00
		█			Isoleucine	-34.06 L	46.00	35.00	104.00
		█			Leucine	-34.43 L	93.00	74.00	196.00
		█			Lysine	-32.83 L	154.00	120.00	318.00
		█			Methionine	-44.12 L	16.00	14.00	48.00
		█			Ornithine	-11.80	62.00	28.00	117.00
		█			Phenylalanine	-42.45 L	46.00	42.00	95.00
		█			Phosphoethanolamine	-30.00 L	1.40	0.00	7.00
		█			Phosphoserine	0.00	0.50	0.00	1.00
		█			Proline	-41.29 L	122.00	99.00	363.00
		█			Sarcosine	-23.50	5.30	0.00	20.00
		█			Serine	-42.86 L	68.00	60.00	172.00
		█			Taurine	-9.81	72.00	29.00	136.00
		█			Threonine	-50.70 L	72.00	73.00	216.00
		█			Tryptophan	-5.77	54.00	31.00	83.00
		█			Tyrosine	-36.11 L	48.00	38.00	110.00
		█			Valine	-27.23 L	197.00	146.00	370.00
	-25%	25%			Total Status Deviation	26.44			
					Total Status Skew	-23.33			

Basic Status Alphabetical - Plasma Fatty Acids on 12/26/2012









































Anna

Plasma Amino, Plasma Fatty Acid, Organics Date: 12/26/2012

Female / Age: 60

Anna (2718)

The % Status is the weighted deviation of the laboratory result relative to the range.

	-100	-50	0	50	100	% Status	Result	Low	High
						7.89	7.90	4.60	10.30
						-38.33 L	27.00	20.00	80.00
						-8.82	2.20	1.50	3.20
						-4.00	316.00	201.00	451.00
						-8.33	1.30	0.80	2.00
						-50.00 L	1.40	1.40	4.00
						27.94 H	87.00	34.00	102.00
						-24.44	0.23	0.00	0.90
						56.49 H	223.00	59.00	213.00
						-23.53	25.00	16.00	50.00
						-40.10 L	4.70	3.70	13.80
						-45.51 L	6.80	6.40	15.30
						14.77	142.00	17.00	210.00
						-15.38	16.00	7.00	33.00
						26.00 H	0.38	0.00	0.50
						34.46 H	16.30	0.00	19.30
						25.00 H	0.27	0.00	0.36
						-32.14 L	5.30	3.30	14.50
						-45.12 L	0.88	0.84	1.66
						-12.79	1205.00	930.00	1669.00
						0.94	2.70	0.00	5.30
						-8.21	48.00	20.00	87.00
						-31.63 L	2.10	1.20	6.10
						4.55	1.70	1.10	2.20
						49.33 H	1.49	0.00	1.50
						-5.18	836.00	555.00	1182.00
						50.00 H	0.40	0.00	0.40
						-6.29	1230.00	792.00	1794.00
						-11.74	84.00	40.00	155.00
						28.62 H	11.40	0.00	14.50
						32.95 H	474.00	294.00	511.00
						35.48 H	0.53	0.00	0.62
						21.11	80.00	48.00	93.00
	-25%	25%				Total Status Deviation	25.06		
						Total Status Skew	0.12		

Basic Status Alphabetic - Urine Organic Acids on 12/26/2012

Anna

Plasma Amino, Plasma Fatty Acid, Organics Date: 12/26/2012

Female / Age: 60

Anna (2718)

The % Status is the weighted deviation of the laboratory result relative to the range.

	-100	-50	0	50	100	% Status	Result	Low	High
			0			2-Methylhippurate	9.52	0.05	0.08
			0			5-Hydroxyindoleacetate	401.43 H	17.90	2.10 5.60
			0			8-Hydroxy-2-deoxyguan	27.36 H	4.10	0.00 5.30
			0			Adipate	-5.77	2.30	0.00 5.20
			0			a-Hydroxybutyrate	50.00 H	0.30	0.00 0.30
			0			a-Keto-b-methylvalerate	-7.89	0.16	0.00 0.38
			0			a-Ketoglutarate	-48.74 L	0.24	0.00 19.00
			0			a-Ketoisocaproate	-5.88	0.15	0.00 0.34
			0			a-Ketisovalerate	10.00	0.15	0.00 0.25
			0			Benzoate	45.00 H	0.57	0.00 0.60
			0			b-Hydroxybutyrate	-6.67	0.91	0.00 2.10
			0			b-Hydroxyisovalerate	9.21	4.50	0.00 7.60
			0			cis-Aconitate	10.61	38.00	18.00 51.00
			0			Citrate	46.70 H	583.00	56.00 601.00
			0			D-Arabinitol	288.89 H	122.00	0.00 36.00
			0			D-Lactate	-32.61 L	0.40	0.00 2.30
			0			Ethylmalonate	22.22	2.60	0.00 3.60
			0			Formiminoglutamic Acid	125.00 H	2.10	0.00 1.20
			0			Fumarate	27.97 H	0.46	0.00 0.59
			0			Glucarate	26.19 H	4.80	0.00 6.30
			0			Hippurate	142.59 H	1144.00	0.00 594.00
			0			Homovanillate	-23.81	3.20	2.10 6.30
			0			Hydroxymethylglutarate	41.67 H	3.30	0.00 3.60
			0			Indican	85.00 H	54.00	0.00 40.00
			0			Isocitrate	26.27 H	84.00	39.00 98.00
			0			Kynurenate	-2.63	0.90	0.00 1.90
			0			Lactate	0.00	8.50	3.00 14.00
			0			Malate	71.43 H	1.70	0.00 1.40
			0			Methylmalonate	26.47 H	1.30	0.00 1.70
			0			Orotate	296.38 H	2.39	0.00 0.69
			0			Phenylacetate	250.00 H	0.12	0.00 0.04
			0			Phenylpropionate	-36.25 L	0.05	0.00 0.40
			0			p-Hydroxybenzoate	0.51	0.50	0.00 0.99
			0			p-Hydroxyphenylacetate	-7.89	8.00	0.00 19.00
			0			p-Hydroxyphenyllactate	-19.62	0.24	0.00 0.79
			0			Pyroglutamate	44.92 H	56.00	0.00 59.00
			0			Pyruvate	-20.77	1.14	0.00 3.90
			0			Quinolate	42.50 H	3.70	0.00 4.00
			0			Suberate	26.47 H	1.30	0.00 1.70
			0			Succinate	180.17 H	26.70	0.00 11.60
			0			Sulfate	58.64 H	2467.00	958.00 2347.00
			0			Tricarballylate	2.05	0.38	0.00 0.73
			0			Vanilmandelate	-40.48 L	2.00	1.80 3.90
			0			Xanthurenate	-5.32	0.21	0.00 0.47
			-25%	25%		Total Status Deviation	196.69		
			-25%	25%		Total Status Skew	182.88		

Client Summary Review
Plasma Amino, Plasma Fatty Acid, Organics Date: 12/26/2012

Anna
Female / Age: 60

Anna (2718)

Nutritional Support

The following supplements may help to balance your biochemistry. Consult your practitioner.

- | | |
|--|---|
| <input type="checkbox"/> 1-5-HTP
3x daily 100 mg | <input type="checkbox"/> 1-Antioxidant Complex
See Nutrition Detail |
| <input type="checkbox"/> 1-CAC Entry Protocol
See Nutrition Detail | <input type="checkbox"/> 1-CoEnzyme Q10
2x daily 100 mg |
| <input type="checkbox"/> 1-Folic Acid
2x daily 800 mcg | <input type="checkbox"/> 1-Vitamin B12
2x daily 1000 mcg |
| <input type="checkbox"/> 1-Yeast Reduction Protocol
See Nutrition Detail | <input type="checkbox"/> 2-Blood Sugar Protocol #2
See Nutrition-Detail |

Foods to AVOID

The following foods may aggravate already out-of-balance biochemistry.

Green Tea

Results Missing From Test

A more comprehensive report would have been generated if the following results were provided.

Erucic 22:1n9

Out-Of-Balance Panel Values

The following panels have a PSD of greater than 25% indicating need for further review. PSD is the Panel Status Deviation, or the average imbalance of that subset of results. The PSS is the Panel Status Skew, or the direction, negative (deficiency) or positive (excess), of that subset of results.

Panel Name	PSD	PSS
CAC Cycle Ratios	979.45%	971.44%
Neurotransmitters	102.17%	75.40%
Intestinal Dysbiosis	89.37%	67.25%
Liver Detox Indicators	80.94%	80.94%
Energy Production	56.69%	44.51%
Detoxification Markers	38.35%	-38.35%
Essential Amino Acid	37.37%	-37.37%
Immune Metabolites	36.74%	-36.74%
Urea Cycle Metabolites	36.68%	-36.68%
Gluconeogen	35.48%	-35.48%
Neuroendocrine Metab	35.32%	-35.32%
Ammonia/Energy	33.94%	-33.74%
Fat Metabolism	30.50%	-30.50%
CNS Metabolism	28.90%	-28.90%
Connective Tissue	27.20%	-19.20%
B-Complex Markers	27.11%	21.65%
Hepatic Metabolism	26.87%	-23.54%

Lab Reported out-of-range Values

The following results are out-of-range (as reported by the lab), and should be carefully reviewed.

CA Cycle Phase 3 (4325.00%)

A high result may be indicative of the lack B-complex nutrients and/or an array of amino acids especially aspartic acid. Supplementing a balanced amino acid blend with a B-complex may help bring a surge of energy. This phase of the citric acid cycle is the movement from Isocitrate to a-ketoglutarate.

CA Cycle Phase 4 (2731.25%)

This phase of the citric acid cycle goes from a-ketoglutarate to succinate through Succinyl-CoA. A high result may be indicative of a deficiency of Coenzyme Q10 and/or riboflavin.

5-Hydroxyindoleacetate (401.43%)

An elevation of this metabolite of the breakdown of serotonin may be due to the use of serotonin-specific re-uptake inhibitor (SSRI) drugs or the release of serotonin from the central nervous system, intestinal argentaffin cells or platelets.

Drugs which may have an adverse affect:

Acetaminophen, Prozac, Reserpine

CA Cycle Entry (376.17%)

A high result for the marker representing the entry into the citric acid may indicate carbohydrate metabolism impairment especially if pyruvate and/or lactate are elevated. Possibilities causing this particular blockade include mercury, arsenic or petrochemical exposure.

Orotate (296.38%)

An elevated reading of this organic acid may be due to an arginine deficiency, ammonia intoxication, and by excessive lysine intake as well as an intracellular magnesium deficiency. Arginine, aspartic acid, alpha ketoglutarate, and magnesium may be helpful.

D-Arabinitol (288.89%)

D-Arabinitol is a sensitive marker for the presence of yeast in the small intestine. An elevated reading is indicative of an ongoing yeast infection.

Phenylacetate (250.00%)

A high reading of this organic acid may be indicative of an overgrowth of intestinal microbiota or protozoa. The presence of this acid may be due to the action of bacteria on phenylalanine and should not appear in anything more than background amounts.

Oxidative Damage (239.33%)

A high reading of this ratio is indicative of excessive oxidative damage and the use of anti-oxidants is highly recommended.

CA Cycle Phase 6 (196.38%)

The last phase of the citric acid cycle, this stage marks the conversion of Fumarate into Malate. When the ratio is low, this may signify that the body is not refilling its losses along the entire cycle. Supplementing with a broad spectrum amino acid along with niacin may help restore balance.

Succinate (180.17%)

A high reading of this organic acid may be indicative of poor amino acid metabolism and could indicate a need for additional magnesium, riboflavin and Coenzyme Q10. It is also suggestive of mitochondrial dysfunction leading to symptoms of fatigue and possibly myocardial and/or neurological degeneration.

Drugs which may have an adverse affect:

Lithium Carbonate

Hippurate (142.59%)

A high reading of this organic acid may be indicative of an overgrowth of intestinal microbiota due to the action of bacteria on phenylalanine, elevated levels of environmental toxins (typically solvents) or elevated ingestion of benzoic acid.

Drugs which may have an adverse affect:

Aspirin

Formiminoglutamic Acid (125.00%)

A high reading of this organic acid is suggestive of a folic acid deficiency. FIGLU is a compound derived from histidine and an insufficiency of folic acid leads to a high result.

Drugs which may have an adverse affect:

Ampicillin, Aspirin, Colchicine

Foods which may have an adverse affect:

Green Tea

CA Cycle Phase 1 (103.42%)

This is the first phase of the citric acid cycle moving from Citrate to cis-Aconitate. A high reading may indicate a disruption in the efficiency of energy production. It can also be due to a problem clearing ammonia due to an arginase enzyme deficiency.

Indican (85.00%)

High readings of this organic acid are consistent with upper bowel dysbiosis. Impaired amino acid absorption may also cause elevations in indican.

Malate (71.43%)

A high level of this organic acid may be indicative of a need for certain nutrients such as niacin and Coenzyme Q10. If citrate, fumarate, and a-ketoglutarate are high as well, it may be due to a cytochrome C oxidase deficiency. Elevations of malate are also seen in individuals with Syndrome X. Tartaric acid has also been implicated, although theoretically, to block malate within the citric acid cycle.

Drugs which may have an adverse affect:

Lithium Carbonate

CA Cycle Phase 5 (66.09%)

This phase of the citric acid cycle is the reaction caused by removing electrons from Succinate to form Fumarate. Co-Q10 deficiency may be responsible for an elevated ratio.

Histidine (-62.28%)

Histidine is an essential amino acid in infants (not adults) important as a mild anti-inflammatory, especially in cases of rheumatoid arthritis. A low result may be indicative of poor protein absorption or low dietary intake. Histidine is commonly low in patients with rheumatoid arthritis.

Drugs which may have an adverse affect:

Salicylates

Sulfate (58.64%)

High levels of sulfate in the urine may be indicative of a number of problems related to glutathione use and depletion. If urinary pyroglutamate and α -hydroxybutyrate are also elevated, this indicates an early stage of glutathione depletion as it suggests that the system is increasing the flow of sulfur compounds into the liver to meet a growing need for the antioxidant tri-peptide. If those two markers are not elevated, suspect a high intake of sulfur bearing foods or amino acids such as NAC (N-Acetyl-Cysteine), methionine or taurine.

Docosahexaenoic 22:6n3 (56.49%)

Docosahexaenoic acid is important in the growth and development of the central nervous system. Considered a very long chain, highly unsaturated fatty acid along with docosapentaenoic acid, deficiencies are seen in ADHD, poor visual development and other elements of brain function. Excesses are rare but may be due to supplementation.

Glycine (-52.48%)

Glycine plays an important role in the body's ability to detoxify itself as well as in wound healing. It is also important in the creation of nucleic acids and bile acids. This amino acid is non-essential as it can be synthesized from serine and threonine. A low result may be indicative of poor nitrogen retention or a low intake of quality proteins.

Aspartic Acid (-52.00%)

Aspartic acid is a non-essential amino acid made from glutamate utilizing vitamin B6 in this conversion. It is involved in the urea and Krebs cycle (ammonia metabolism and carbohydrate metabolism). An excitatory amino acid, aspartic acid has been studied for the treatment of unipolar depression. This reading may be indicative of the inability to detoxify, especially ammonia. Fatigue may result from low levels.

Threonine (-50.70%)

Threonine is an essential amino acid which the body breaks down to form glycine, serine and glucose. Research has been done on the positive impact of threonine on the immune system and in depression. A low result may be indicative of hypoglycemia if glycine and serine are also low. Low levels may be due to maldigestion or insufficient dietary protein intake. Meats, poultry, fish, some nuts and peanuts as well as cheese are good sources of threonine.

Capric 10:0 (-50.00%)

A pattern of low levels of the shorter chain fatty acids and high levels of longer chain fatty acids may indicate a fatty acid restricted diet in which case there is a stimulation of hepatic synthesis and elongation enzymes.

α -Hydroxybutyrate (50.00%)

Elevations of this organic acid are seen in poor carbohydrate metabolism as well as in elevated glutathione synthesis possibly due to toxicity, intestinal dysbiosis, drug interactions such as acetaminophen, and any disease that increases glutathione demands. Review pyroglutamate and sulfate levels to determine the stage of glutathione depletion.

Palmitelaidic 16:1n7t (50.00%)

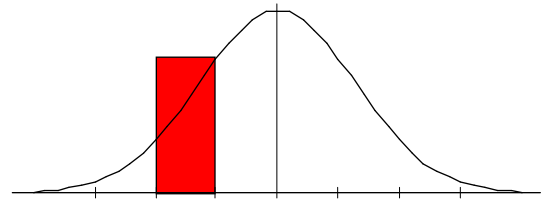
Known as a trans-fatty acid, this bad fat is found in hydrogenated foods such as margarine and many baked goods. Research has suggested that excessive intake of these fatty acids may increase the risk of coronary heart disease.

Ammonia/Energy

Arginine[L], Threonine[L], Glycine[L], Serine[L], a-Amino adipic Acid[L], Asparagine[L], Aspartic Acid[L], Citrulline[L], Glutamic Acid, Glut.

PSD: 33.94
PSS: -33.74

Ammonia influences a cell's ability to create energy. This panel shows your body's ability to rid excess ammonia buildup and maintain a healthy energy cycle. A profile like this may show you're not eating enough protein, you're unable to digest properly, or you're eating a poor quality of proteins.

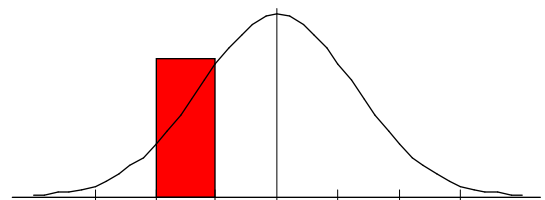


CNS Metabolism

Arginine[L], Tryptophan, Glycine[L], Serine[L], Taurine, Aspartic Acid[L], Glutamine[L], Ethanolamine, Phosphoethanolamine[L], Phosphoserine.

PSD: 28.90
PSS: -28.90

Amino acids are the basic building blocks of all the cells in our body. Amino acid metabolism is important for proper functioning of the nervous system. This profile may indicate poor central nervous system functioning. Symptoms include: memory loss, fatigue and poor concentration.

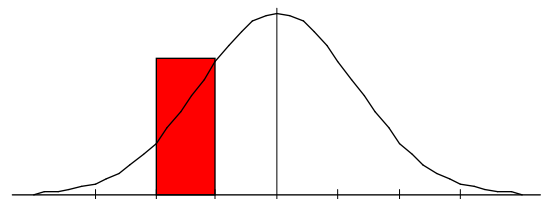


Connective Tissue

Leucine[L], Methionine[L], Valine[L], Cystine[L], Hydroxylysine, Hydroxyproline, 3-Methylhistidine, Proline[L].

PSD: 27.20
PSS: -19.20

This panel shows whether there's an adequate supply and metabolism of amino acids necessary to produce healthy connective tissue and collagen. Necessary for healthy bone, joints, hair, skin, and cartilage. This profile may indicate poor collagen and other tissue production. Symptoms include: brittle hair, dry skin, increased joint aches and pain.

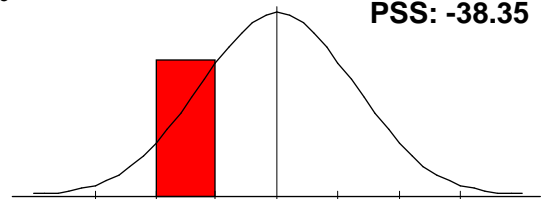


Detoxification Markers

Methionine[L], Cystine[L], Taurine, Glutamine[L], Glycine[L], Aspartic Acid[L].

PSD: 38.35
PSS: -38.35

This panel reviews amino acids critical for proper detoxification. This includes detoxing medications, environmental toxins, and natural metabolic toxins. This profile may be indicative of an inability to properly detoxify. Personalized supplementation is suggested.

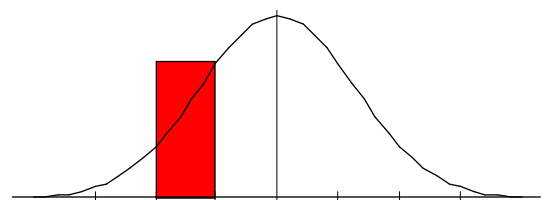


Essential Amino Acid

Arginine[L], Histidine[L], Isoleucine[L], Leucine[L], Lysine[L], Methionine[L], Phenylalanine[L], Threonine[L], Tryptophan, Valine[L].

PSD: 37.37
PSS: -37.37

This panel reviews the essential amino acids the body can't produce and must get from the diet. These amino acids are necessary for all body functions. This profile may indicate the body is somehow not getting enough essential amino acids. Possible causes: stressful lifestyle, environmental stress, and diet require higher amounts of essential amino acids to function at optimal health.

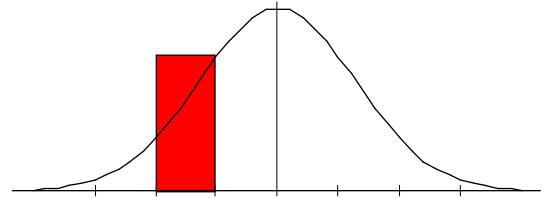


Fat Metabolism

Arginine[L], Isoleucine[L], Leucine[L], Valine[L], Taurine,
Glutamine[L], Sarcosine.

PSD: 30.50
PSS: -30.50

This panel shows your balance of amino acids critical to proper fat metabolism. Fat metabolism is important in many body functions. Improper metabolism can cause problems like hormonal issues and nerve disorders. This profile indicates you don't have enough aminos necessary to metabolize dietary fats such as cholesterol and triglycerides. This may put you at higher risk of heart disease, high cholesterol and other diseases. Consider digestive enzymes and broad spectrum amino acids.

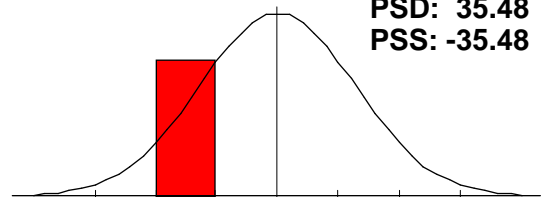


Gluconeogen

Threonine[L], Tryptophan, Glycine[L], Serine[L], Alanine[L].

PSD: 35.48
PSS: -35.48

This panel shows whether you have the proper amino acids in balance to control blood sugar levels. This profile may indicate blood sugar control issues such as hypoglycemia or diabetes.

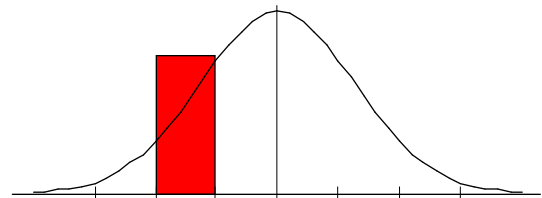


Hepatic Metabolism

Methionine[L], Taurine, Glutamine[L], Cystine[L], Homocystine,
Alanine[L].

PSD: 26.87
PSS: -23.54

This panel shows whether you have adequate stores of the listed amino acids to optimize liver function. This is important because your liver is responsible for cleaning your blood of toxins. This profile may indicate you may not be consuming enough protein. Or that your liver is working so hard, it's using up these amino acids so quickly, it's outstripping your supply.

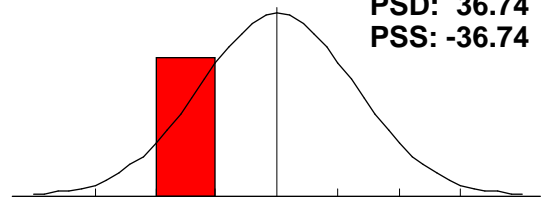


Immune Metabolites

Arginine[L], Threonine[L], Glutamine[L], Ornithine.

PSD: 36.74
PSS: -36.74

This panel shows whether you have adequate amounts of the listed amino acids to properly fight off viral or bacterial infections. This profile may indicate a weak immune function - making it difficult for you to fight off infections. This may be caused by a low dietary protein intake.

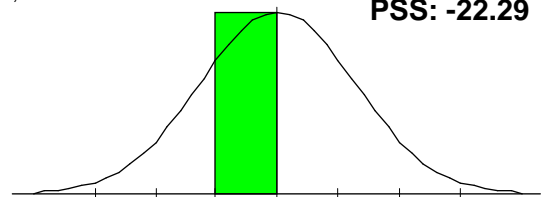


Magnesium Dependents

Citrulline[L], Ethanolamine, Phosphoethanolamine[L], Phosphoserine,
Serine[L].

PSD: 22.29
PSS: -22.29

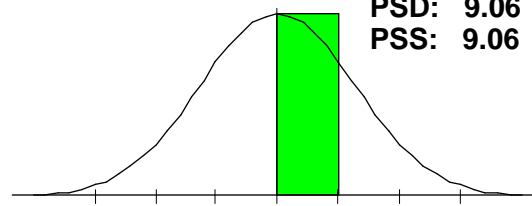
This panel shows whether you have adequate amounts of magnesium for proper amino acid function. Amino acids are extremely dependent on magnesium to function properly. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Muscle Metabolites

Anserine, Carnosine, 1-Methylhistidine, 3-Methylhistidine.

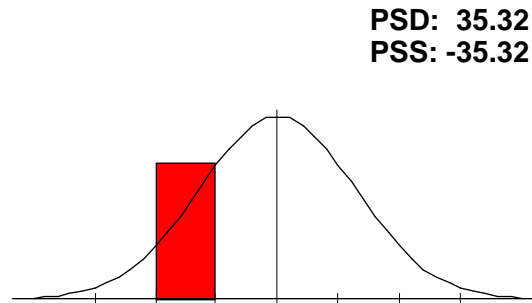
Amino acids are the basic building blocks critical in building muscle tissue. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Neuroendocrine Metab

Glycine[L], Serine[L], Taurine, Tyrosine[L].

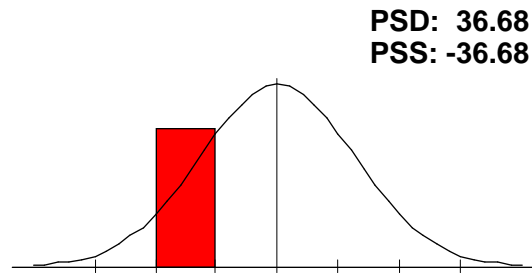
This panel shows whether you have enough of the listed amino acids necessary for the proper functioning of your endocrine system. The endocrine system comprises the control organs of the body such as: thymus, pancreas, and thyroid. This profile may indicate you don't have an adequate amount of the listed amino acids to support your endocrine system, which causes it to underfunction. This may be due to a low dietary intake of quality protein.



Urea Cycle Metabolites

Arginine[L], Aspartic Acid[L], Citrulline[L], Ornithine, Glutamine[L], Asparagine[L].

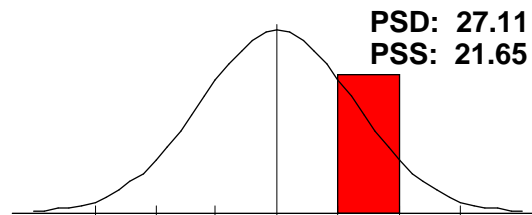
This panel shows your supply of the amino acids related to the urea cycle. This metabolic process helps you remove excess ammonia from your system. This profile indicates you don't have an adequate supply of the listed amino acids necessary to flush out excess ammonia. Excess ammonia can cause neurological issues. Review your Supplement List Explanation.



B-Complex Markers

b-Hydroxyisovalerate, a-Ketoisovalerate, a-Ketoisocaproate, a-Keto-b-methylvalerate, Methylmalonate[H], Formiminoglutamic Acid[H], Xanthuren.

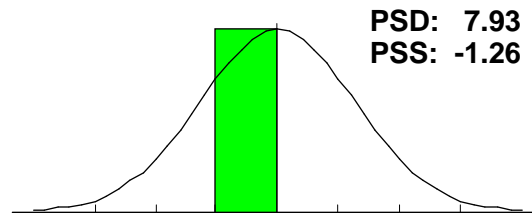
This panel assesses adequate intake of B-complex vitamins. This profile may indicate a need for certain B-complex vitamins. Review your Supplement List Explanation.



BCAA Catabolism

a-Ketoisovalerate, a-Ketoisocaproate, a-Keto-b-methylvalerate.

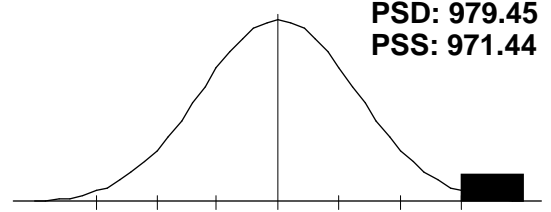
BCAA's are essential in building muscle and you can only get them from your diet or supplements. This panel assess your BCAA levels and how they're being used. This profile shows a percent imbalance below 25%, so no abnormalities were found.



CAC Cycle Ratios

CA Cycle Entry[H], CA Cycle Phase 1[H], CA Cycle Phase 2, CA Cycle Phase 3[H], CA Cycle Phase 4[H], CA Cycle Phase 5[H], CA Cycle Phase 6[H].

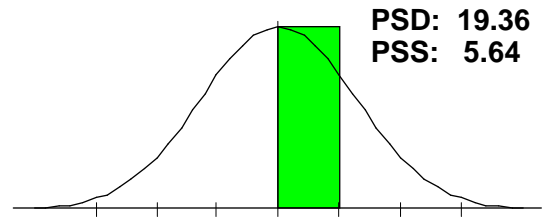
This panel reviews cellular energy producing cycles to maintain health and weight. This profile may indicate a heavy toxin load. Consider running additional environmental toxicity tests.



Carbohydrate Metabolism

Lactate, Pyruvate, a-Hydroxybutyrate[H], b-Hydroxybutyrate.

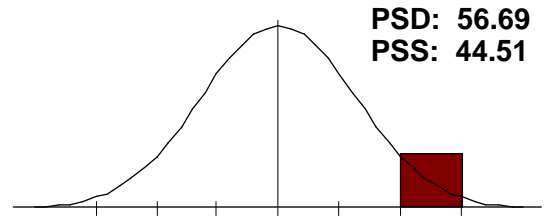
This panel assesses your body's ability to metabolize dietary carbohydrates. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Energy Production

Citrate[H], cis-Aconitate, Isocitrate[H], a-Ketoglutarate[L], Succinate[H], Fumarate[H], Malate[H], Hydroxymethylglutarate[H].

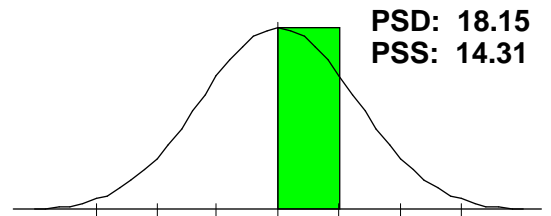
This panel reviews cellular energy producing cycles to maintain health and weight. This profile may indicate a breakdown in the Citric Acid Cycle. Review your Supplement List Explanation.



Fatty Acid Metabolism

Adipate, Suberate[H], Ethylmalonate.

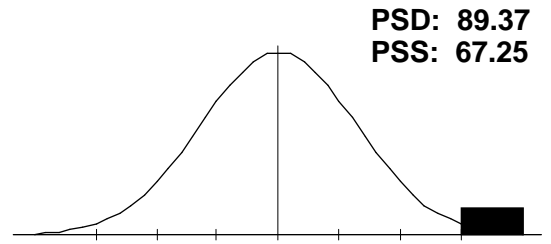
This panel assesses how fats are being broken down and utilized by the body. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Intestinal Dysbiosis

p-Hydroxyphenyllactate, Phenylacetate[H], Phenylpropionate[L], Tricarballoylate, Indican[H], p-Hydroxybenzoate, D-Lactate[L], D-Arabinitol[H].

Disbiosis is an overgrowth of bad bacteria in the gut. It is indicative of gut health. This profile suggest you may have overgrowths of bad bacteria in the gut. Review Clostridium panel. Consider running a stool analysis to confirm.

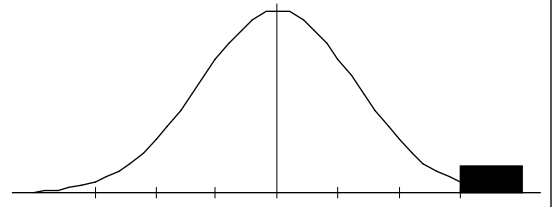


Liver Detox Indicators

2-Methylhippurate, Glucarate[H], Orotate[H], Pyroglutamate[H], Sulfate[H], a-Hydroxybutyrate[H].

PSD: 80.94
PSS: 80.94

This panel assesses how well your liver removes toxins from your system. This profile may indicate: high environmental toxins, improper regulation of cell growth, hereditary deficiencies, and a depressed ability of the liver to detoxify itself. Consider a detoxification protocol. Review your Supplement List Explanation..

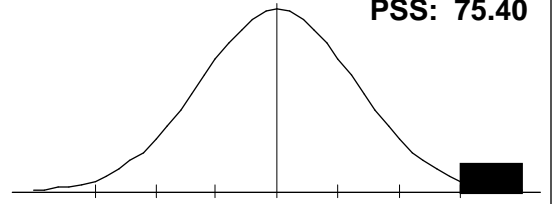


Neurotransmitters

Vanilmandelate[L], Homovanillate, 5-Hydroxyindoleacetate[H], Kynurenate, Quinolate[H].

PSD: 102.17
PSS: 75.40

Neurotransmitters are chemicals the brain uses to make the entire neurological system function - including all body functions. This panel assesses neurotransmitter production. This profile may be caused by the use of SSRI's. This may lead to fatigue, depression, or anxiety.



Drug Interactions

Anna

Plasma Amino, Plasma Fatty Acid, Organics Date: 12/26/2012

Female / Age: 60

Anna (2718)

Drugs listed below tend to further aggravate elements of blood chemistry that are out of range (H or L). The (#) after each drug denotes the number of times that drug is flagged as being potentially harmful.

Acetaminophen(2)
Colchicine(2)
Methotrexate
Salicylates

Ampicillin
Imipramine
Methyldopa

Aspirin(2)
Lithium Carbonate(4)
Prozac

Clonidine
MAO Inhibitors
Reserpine(2)

Nutrition - Detail

Anna

Plasma Amino, Plasma Fatty Acid, Organics Date: 12/26/2012

Female / Age: 60

Anna (2718)

Nutritional and herbal information contained in this report is based upon research related to imbalances in your chemistry. The recommendations are based upon the information provided, without interpretation. This must be done with the help of your qualified health care professional.

1-5-HTP 3x daily 100 mg

5-Hydroxytryptophan is indicated due to the high level of 5-HIAA in urine which suggests serotonin catabolism and a possible loss of tryptophan reserves.

Decreased

Rationale

Normal

Increased

5-Hydroxyindoleacetate

1-Antioxidant Complex See Nutrition Detail

When certain oxidative test markers appear, the following protocol can be followed: a Broad Spectrum Antioxidant which should include CoEnzyme Q10 (2 times daily, Vitamins A and E as well as Selenium (2 times daily) and Vitamin C (1000 mg 2 times daily).

Vitamin E should only be consumed with the advice of a physician if currently taking Coumadin or other blood thinning medications.

COENZYME Q10

An important antioxidant and essential component of mitochondria, CoQ10 can be depleted if on cholesterol lowering drugs.

VITAMIN A/MIXED-CAROTENES

Vitamin A is involved in the growth and repair of tissue and helps maintain healthy skin. It is essential in the maintenance of eyesight, building of bones, teeth and blood. It also enhances production of RNA.

VITAMIN E

Vitamin E is a major antioxidant, enhances lymphocyte production, maintains cellular integrity, and aids in the biosynthesis of heme proteins

SELENIUM (Se)

Cofactor in glutathione peroxidase, in detoxification of peroxides, free radicals and thyroid hormone deionases.

VITAMIN C

Water-soluble vitamin essential for the synthesis and maintenance of collagen as well as body tissue cells, cartilage, bones, teeth, skin and tendons. Helps protect the immune system. Also improves iron and calcium absorption as well as trace mineral utilization.

Decreased

Normal

Increased

Oxidative Damage

1-CAC Entry Protocol See Nutrition Detail

When the entry point to the citric acid cycle is blocked, the ability to utilize carbohydrates to produce energy is impaired. The following protocol may be helpful in bringing down this ratio.

B-Complex - 2x daily

Amino Acid Complex - 5 grams 2x daily

CoEnzyme Q10 - 50 mg 2x daily

Alpha Lipoic Acid - 200 mg 2x daily

Vitamin C - 1000 mg 2x daily

For children between 6-18

B-Complex - 1x daily

CoEnzyme Q10 - 25 mg daily

Vitamin C - 500 mg daily

Amino Acid Complex - 5 grams daily

For children under the age of 6:

Amino Acid Complex with co-factors - 1/8 tsp 2x daily

Vitamin C - 125 mg 2x daily

CoEnzyme Q10 - 12.5 mg daily

For children between the ages of 6 and 18 use 1/2 the adult dose.

Decreased

Normal

Increased

CA Cycle Entry

1-CoEnzyme Q10 2x daily 100 mg

CoEnzyme Q10 is an essential component of the mitochondria of the energy producing unit of the cell. Its beneficial effects include increased energy, as well as prevention of cardiovascular disease and cancer.

Clinical responses may take up to 8 weeks according to some research so patience is necessary during supplementation.

Decreased

Normal

Increased

Hydroxymethylglutarate

Succinate
Malate

Nutrition - Detail

Anna

Plasma Amino, Plasma Fatty Acid, Organics Date: 12/26/2012

Female / Age: 60

Anna (2718)

Nutritional and herbal information contained in this report is based upon research related to imbalances in your chemistry. The recommendations are based upon the information provided, without interpretation. This must be done with the help of your qualified health care professional.

1-Folic Acid 2x daily 800 mcg

Adult: 800 mcg 2x daily Children 800 mcg 1x daily
A folic acid deficiency may lead to a buildup of this organic acid which is created through the metabolism of histidine.

Decreased

Rationale

Normal

Increased

Formiminoglutamic Acid

1-Vitamin B12 2x daily 1000 mcg

The only vitamin containing essential mineral elements, B12 is important in metabolism of nerve tissue, protein, fat and carbohydrate metabolism and the actions of a number of amino acids. It also is involved in the production of DNA and RNA. The organic acid Methylmalonate when high, is a good indicator of a B12 deficiency.

Decreased

Normal

Increased

Methylmalonate

1-Yeast Reduction Protocol See Nutrition Detail

Because of the relative increase in the marker for yeast and fungi D-Arabinitol, it may be helpful to begin a yeast reduction protocol. Avoiding refined carbohydrates such as sugar, alcohol and other yeast-containing products is recommended. The introduction of probiotics such as Lactobacilli should also be started. Probiotics - 3 times daily if D-Lactate is normal or low
Olive leaf extract - 2 times daily
Grapefruit seed extract - 2 times daily

Decreased

Normal

Increased

D-Arabinitol

2-Blood Sugar Protocol #2 See Nutrition-Detail

When certain blood sugar and lipid markers are abnormal, the following protocol is recommended: Zinc (25-30 mg 1 time daily), Magnesium (400 mg 1 time daily), Broad Spectrum Fatty Acids (1 time daily), B-Complex (1 time daily) and Trace Mineral Complex (1 time daily)

Decreased

Normal

Increased

Isoleucine
Threonine
Alanine

ZINC (Zn)

Active in the structure and function of biomembranes. Involved in more than 200 key enzymes including carbohydrate metabolism, connective tissue metabolism, T-cell function and prostaglandin secretion.

MAGNESIUM (Mg)

Second most abundant cation in intracellular fluid. It is involved in vasodilation, contraction, as well as cardiac and skeletal muscle cells. Required in over 300 enzymes, temperature control, neuronal homeostasis and has a profound effect on cardiac physiology.

BROAD SPECTRUM FATTY ACID

Broad spectrum fatty acids, high in Omega-3, -6 and -9 have shown a potential ability to improve immune function.

B-COMPLEX VITAMINS

B complex vitamins are involved in a broad spectrum of cell metabolic deficiencies as well as fatty acid utilization.

TRACE MINERALS

Trace minerals are critical in almost all enzymatic reactions. A proper balance is crucial in the proper utilization of vitamins, fats and carbohydrates. Important as a part of any targeted fatty acid supplementation protocol along with electrolytes and a B-vitamin complex.

Clinical Correlation

Anna

Plasma Amino, Plasma Fatty Acid, Organics Date: 12/26/2012

Female / Age: 60

Anna (2718)

This report "MATCHES" clinical observations with the lab test. Elements shown, normal and abnormal, tend to characterize the observation. Highlighted elements are those reported to "MATCH" the characteristics of the clinical observation. Others are NOT matches but are elements in the observation.

Depression (311.00)

75.00% (3 of 4)

Decreased

Normal

Increased

-44.12 Methionine

-42.45 Phenylalanine

-5.77 Tryptophan

-36.11 Tyrosine

Inefficient Glutathione Production ()

75.00% (3 of 4)

Decreased

Normal

Increased

-27.04 Cystine

-23.16 Glutamic Acid

-52.48 Glycine

-44.12 Methionine

Mitochondrial Inefficiencies ()

66.67% (2 of 3)

Decreased

Normal

Increased

26.27 Isocitrate

46.70 Citrate

10.61 cis-Aconitate

When this pattern shows up, suspect mitochondrial inefficiencies which may be due to toxicity issues.

Comparison Progress Report
Plasma Amino, Plasma Fatty Acid, Organics Date: 12/26/2012

Anna

Female / Age: 60

Anna (2718)

A "+" change is toward optimal % Status of zero. A "-" change is away from optimal % Status of zero.

	Status % on:	4/11/2012	12/26/2012	+/- change
Hydroxyproline		65.38 H	-11.54	+ 53.85
Glycine/Serine Ratio		45.43 H	-6.86	+ 38.57
Leucine		0.82	-34.43 L	- 33.61
Arginine		-9.26	-39.81 L	- 30.56
Lysine		-2.53	-32.83 L	- 30.30
Methionine		-14.71	-44.12 L	- 29.41
Phenylalanine		-16.04	-42.45 L	- 26.42

Comparison Report

Anna

Plasma Amino, Plasma Fatty Acid, Organics Date: 12/26/2012

Female / Age: 60

Anna (2718)

The arrow's length is proportional to change. Left to right is increase. Right to left is decrease.
Green is improvement. Red is decline.

	+/-		Status	% on:	4/11/2012	12/26/2012
5.77 13.46	+	1-Methylhistidine			13.46	5.77
		3-Methylhistidine			19.00	22.00
		a-Aminoadipic Acid			-25.00	-25.00
			L			L
1.28 8.97	+	a-Amino-N-Butyric Acid			8.97	1.28
-25.61 6.32	-	Alanine			6.32	-25.61
			L			L
3.49 24.42	+	Anserine			24.42	3.49
-39.81 -9.26	-	Arginine			-9.26	-39.81
			L			L
-44.92 -34.75	-	Asparagine			-34.75	-44.92
			L			L
		Aspartic Acid			-57.00	-52.00
			L			L
		Carnosine			-3.33	5.00
		Citrulline			-21.79	-26.92
			L			L
-27.04 -5.93	-	Cystine			-5.93	-27.04
			L			L
		Ethanolamine			6.67	-11.67
-32.63 -23.16	+	Glutamic Acid			-32.63	-23.16
			L			L
-44.64 28.57	-	Glutamine			28.57	-44.64
			H			L
-52.48 -33.75	-	Glycine			-33.75	-52.48
			L			L
-6.86 45.43	+	Glycine/Serine Ratio			45.43	-6.86
			H			L
-62.28 -37.72	-	Histidine			-37.72	-62.28
			L			L
		Homocystine			10.00	10.00
		Hydroxylysine			10.00	10.00
-11.54 65.38	+	Hydroxyproline			65.38	-11.54
			H			L
-34.06 -19.57	-	Isoleucine			-19.57	-34.06
			L			L
-34.43 0.82	-	Leucine			0.82	-34.43
			L			L
-32.83 -2.53	-	Lysine			-2.53	-32.83
			L			L
-44.12 -14.71	-	Methionine			-14.71	-44.12
			L			L
		Ornithine			-15.17	-11.80
-42.45 -16.04	-	Phenylalanine			-16.04	-42.45
			L			L
-30.00 -15.71	-	Phosphoethanolamine			-15.71	-30.00
			L			L
		Phosphoserine			0.00	0.00
-41.29 -23.48	-	Proline			-23.48	-41.29
			L			L
-23.50 -1.50	-	Sarcosine			-1.50	-23.50
			L			L
		Serine			-38.39	-42.86
			L			L
-9.81 24.77	+	Taurine			24.77	-9.81
-50.70 -41.61	-	Threonine			-41.61	-50.70
			L			L
-5.77 13.46	+	Tryptophan			13.46	-5.77
-36.11 -12.50	-	Tyrosine			-12.50	-36.11
			L			L
-27.23 -14.73	-	Valine			-14.73	-27.23
			L			L
		Total Status Deviation			20.39	26.44
		Total Status Skew			-5.40	-23.33

Comparison Progress Report
Plasma Amino, Plasma Fatty Acid, Organics Date: 12/26/2012

Anna
 Female / Age: 60

Anna (2718)

A "+" change is toward optimal % Status of zero. A "-" change is away from optimal % Status of zero.

	Status % on: 4/11/2012		12/26/2012		+/- change
Benzoate	1633.33	H	45.00	H	+1588.33
5-Hydroxyindoleacetate	1298.57	H	401.43	H	+ 897.14
CA Cycle Phase 6	975.64	H	196.38	H	+ 779.26
CA Cycle Phase 5	257.69	H	66.09	H	+ 191.61
Sulfate	128.04	H	58.64	H	+ 69.40
p-Hydroxybenzoate	61.11	H	0.51		+ 60.61
Formiminoglutamic Acid	158.33	H	125.00	H	+ 33.33
Glucarate	59.52	H	26.19	H	+ 33.33
CA Cycle Phase 4	2033.33	H	2731.25	H	- 697.92
CA Cycle Phase 3	3804.17	H	4325.00	H	- 520.83
D-Arabinitol	72.22	H	288.89	H	- 216.67
Hippurate	-1.35		142.59	H	- 141.25
Oxidative Damage	102.67	H	239.33	H	- 136.67
CA Cycle Entry	294.30	H	376.17	H	- 81.87
Indican	5.00		85.00	H	- 80.00
Succinate	122.41	H	180.17	H	- 57.76
Orotate	241.30	H	296.38	H	- 55.07
Phenylacetate	225.00	H	250.00	H	- 25.00

Comparison Report

Anna

Plasma Amino, Plasma Fatty Acid, Organics Date: 12/26/2012

Female / Age: 60

Anna (2718)

The arrow's length is proportional to change. Left to right is increase. Right to left is decrease.
Green is improvement. Red is decline.

		+/-	Status % on:	4/11/2012	12/26/2012
	-23.81 9.52	+		-23.81	9.52
401.43	1298.57	+		1298.57 H	401.43 H
	-10.38 27.36	-		-10.38	27.36 H
				Adipate	5.77 -5.77
				a-Hydroxybutyrate	50.00 H 50.00 H
				a-Keto-b-methylvalerate	-7.89 -7.89
				a-Ketoglutarate	-48.74 L -48.74 L
	-29.41 -5.88	+		-29.41 L	-5.88
				a-Ketoisovalerate	10.00 10.00
45.00	1633.33	+		1633.33 H	45.00 H
				b-Hydroxybutyrate	-6.67 -6.67
	9.21 30.26	+		30.26 H	9.21
	-1.52 10.61	-		-1.52	10.61
	26.15 46.70	-		26.15 H	46.70 H
72.22	288.89	-		72.22 H	288.89 H
				D-Arabinitol	72.22 H 288.89 H
				D-Lactate	-32.61 L -32.61 L
				Ethylmalonate	27.78 H 22.22
	125.00 158.33	+		158.33 H	125.00 H
				Formiminoglutamic Acid	158.33 H 27.97 L
				Fumarate	-27.97 L 27.97 H
	26.19 59.52	+		59.52 H	26.19 H
	-1.35 142.59	-		-1.35	142.59 H
	-23.81 2.38	-		-23.81	2.38 -23.81
	33.33 41.67	-		33.33 H	41.67 H
	5.00 85.00	-		5.00	85.00 H
	9.32 26.27	-		9.32	26.27 H
	-2.63 18.42	+		18.42	-2.63
				Lactate	5.45 0.00
	71.43 92.86	+		92.86 H	71.43 H
	14.71 26.47	-		14.71	26.47 H
	241.30 296.38	-		241.30 H	296.38 H
	225.00 250.00	-		225.00 H	250.00 H
				Phenylacetate	225.00 H -36.25 L
				Phenylpropionate	-36.25 L -36.25 L
	0.51 61.11	+		61.11 H	0.51
				p-Hydroxybenzoate	61.11 H -7.89 -7.89
				P-Hydroxyphenylacetate	-7.89 -7.89
				p-Hydroxyphenyllactate	-25.95 L -19.62
				Pyroglutamate	39.83 H 44.92 H
				Pyruvate	39.83 H -20.77 -20.77
	-20.00 42.50	-		-20.00	42.50 H
	14.71 26.47	-		14.71	26.47 H
	122.41 180.17	-		122.41 H	180.17 H
	58.64 128.04	+		128.04 H	58.64 H
	-17.12 2.05	+		-17.12	2.05
	-54.76 -40.48	+		-54.76 L	-40.48 L
	-5.32 18.09	+		18.09	-5.32
				Xanthurenate	18.09 -5.32
				Total Status Deviation	226.56 196.69
				Total Status Skew	208.52 182.88

Panel/Subset Comparison Report

Anna
Female / Age: 60

Plasma Amino, Plasma Fatty Acid, Organics Date: 12/26/2012

Anna (2718)

Ammonia/Energy	4/11/2012	12/26/2012	+/-			
Arginine	-9.26	-39.81	L -	-39.81	←	-9.26
Threonine	-41.61	L -50.70	L -	-50.70	←	-41.61
Glycine	-33.75	L -52.48	L -	-52.48	←	-33.75
Serine	-38.39	L -42.86	L			
a-Aminoadipic Acid	-25.00	L -25.00	L			
Asparagine	-34.75	L -44.92	L -	-44.92	←	-34.75
Aspartic Acid	-57.00	L -52.00	L			
Citrulline	-21.79	-26.92	L			
Glutamic Acid	-32.63	L -23.16	+	-32.63	→	-23.16
Glutamine	28.57	H -44.64	L -	-44.64	←	28.57
Ornithine	-15.17	-11.80				
a-Amino-N-Butyric Acid	8.97	1.28	+	1.28	←	8.97
Alanine	6.32	-25.61	L -	-25.61	←	6.32
PSS / PSD	-20.42 / 27.17	-33.74 / 33.94				

CNS Metabolism	4/11/2012	12/26/2012	+/-			
Arginine	-9.26	-39.81	L -	-39.81	←	-9.26
Tryptophan	13.46	-5.77	+	-5.77	←	13.46
Glycine	-33.75	L -52.48	L -	-52.48	←	-33.75
Serine	-38.39	L -42.86	L			
Taurine	24.77	-9.81	+	-9.81	←	24.77
Aspartic Acid	-57.00	L -52.00	L			
Glutamine	28.57	H -44.64	L -	-44.64	←	28.57
Ethanolamine	6.67	-11.67				
Phosphoethanolamine	-15.71	-30.00	L -	-30.00	←	-15.71
Phosphoserine	0.00	0.00				
PSS / PSD	-8.06 / 22.76	-28.90 / 28.90				

Connective Tissue	4/11/2012	12/26/2012	+/-			
Leucine	0.82	-34.43	L -	-34.43	←	0.82
Methionine	-14.71	-44.12	L -	-44.12	←	-14.71
Valine	-14.73	-27.23	L -	-27.23	←	-14.73
Cystine	-5.93	-27.04	L -	-27.04	←	-5.93
Hydroxylysine	10.00	10.00				
Hydroxyproline	65.38	H -11.54	+	-11.54	←	65.38
3-Methylhistidine	19.00	22.00				
Proline	-23.48	-41.29	L -	-41.29	←	-23.48
PSS / PSD	4.54 / 19.26	-19.20 / 27.20				

Detoxification Markers	4/11/2012	12/26/2012	+/-			
Methionine	-14.71	-44.12	L -	-44.12	←	-14.71
Cystine	-5.93	-27.04	L -	-27.04	←	-5.93
Taurine	24.77	-9.81	+	-9.81	←	24.77
Glutamine	28.57	H -44.64	L -	-44.64	←	28.57
Glycine	-33.75	L -52.48	L -	-52.48	←	-33.75
Aspartic Acid	-57.00	L -52.00	L			
PSS / PSD	-9.67 / 27.45	-38.35 / 38.35				

Panel/Subset Comparison Report

Anna
Female / Age: 60

Plasma Amino, Plasma Fatty Acid, Organics Date: 12/26/2012

Anna (2718)

Essential Amino Acid	4/11/2012	12/26/2012	+/-	
Arginine	-9.26	-39.81 L	-	-39.81 ← -9.26
Histidine	-37.72 L	-62.28 L	-	-62.28 ← -37.72
Isoleucine	-19.57	-34.06 L	-	-34.06 ← -19.57
Leucine	0.82	-34.43 L	-	-34.43 ← 0.82
Lysine	-2.53	-32.83 L	-	-32.83 ← -2.53
Methionine	-14.71	-44.12 L	-	-44.12 ← -14.71
Phenylalanine	-16.04	-42.45 L	-	-42.45 ← -16.04
Threonine	-41.61 L	-50.70 L	-	-50.70 ← -41.61
Tryptophan	13.46	-5.77	+	-5.77 → 13.46
Valine	-14.73	-27.23 L	-	-27.23 ← -14.73
PSS / PSD	-14.19 / 17.04	-37.37 / 37.37		

Fat Metabolism	4/11/2012	12/26/2012	+/-	
Arginine	-9.26	-39.81 L	-	-39.81 ← -9.26
Isoleucine	-19.57	-34.06 L	-	-34.06 ← -19.57
Leucine	0.82	-34.43 L	-	-34.43 ← 0.82
Valine	-14.73	-27.23 L	-	-27.23 ← -14.73
Taurine	24.77	-9.81	+	-9.81 → 24.77
Glutamine	28.57 H	-44.64 L	-	-44.64 ← 28.57
Sarcosine	-1.50	-23.50	-	-23.50 ← -1.50
PSS / PSD	1.30 / 14.17	-30.50 / 30.50		

Gluconeogen	4/11/2012	12/26/2012	+/-	
Threonine	-41.61 L	-50.70 L	-	-50.70 ← -41.61
Tryptophan	13.46	-5.77	+	-5.77 → 13.46
Glycine	-33.75 L	-52.48 L	-	-52.48 ← -33.75
Serine	-38.39 L	-42.86 L	-	
Alanine	6.32	-25.61 L	-	-25.61 ← 6.32
PSS / PSD	-18.79 / 26.71	-35.48 / 35.48		

Hepatic Metabolism	4/11/2012	12/26/2012	+/-	
Methionine	-14.71	-44.12 L	-	-44.12 ← -14.71
Taurine	24.77	-9.81	+	-9.81 → 24.77
Glutamine	28.57 H	-44.64 L	-	-44.64 ← 28.57
Cystine	-5.93	-27.04 L	-	-27.04 ← -5.93
Homocystine	10.00	10.00		
Alanine	6.32	-25.61 L	-	-25.61 ← 6.32
PSS / PSD	8.17 / 15.05	-23.54 / 26.87		

Immune Metabolites	4/11/2012	12/26/2012	+/-	
Arginine	-9.26	-39.81 L	-	-39.81 ← -9.26
Threonine	-41.61 L	-50.70 L	-	-50.70 ← -41.61
Glutamine	28.57 H	-44.64 L	-	-44.64 ← 28.57
Ornithine	-15.17	-11.80		
PSS / PSD	-9.37 / 23.65	-36.74 / 36.74		

Panel/Subset Comparison Report

Anna
Female / Age: 60

Plasma Amino, Plasma Fatty Acid, Organics Date: 12/26/2012

Anna (2718)

Magnesium Dependents	4/11/2012	12/26/2012	+/-		
Citrulline	-21.79	-26.92 L			
Ethanolamine	6.67	-11.67			
Phosphoethanolamine	-15.71	-30.00 L	-	-30.00 ←	-15.71
Phosphoserine	0.00	0.00			
Serine	-38.39 L	-42.86 L			
PSS / PSD	-13.85 / 16.51	-22.29 / 22.29			

Muscle Metabolites	4/11/2012	12/26/2012	+/-		
Anserine	24.42	3.49	+	3.49 ←	24.42
Carnosine	-3.33	5.00			
1-Methylhistidine	13.46	5.77	+	5.77 ←	13.46
3-Methylhistidine	19.00	22.00			
PSS / PSD	13.39 / 15.05	9.06 / 9.06			

Neuroendocrine Metab	4/11/2012	12/26/2012	+/-		
Glycine	-33.75 L	-52.48 L	-	-52.48 ←	-33.75
Serine	-38.39 L	-42.86 L			
Taurine	24.77	-9.81	+	-9.81 ←	24.77
Tyrosine	-12.50	-36.11 L	-	-36.11 ←	-12.50
PSS / PSD	-14.97 / 27.35	-35.32 / 35.32			

Urea Cycle Metabolites	4/11/2012	12/26/2012	+/-		
Arginine	-9.26	-39.81 L	-	-39.81 ←	-9.26
Aspartic Acid	-57.00 L	-52.00 L			
Citrulline	-21.79	-26.92 L			
Ornithine	-15.17	-11.80			
Glutamine	28.57 H	-44.64 L	-	-44.64 ←	28.57
Asparagine	-34.75 L	-44.92 L	-	-44.92 ←	-34.75
PSS / PSD	-18.23 / 27.76	-36.68 / 36.68			

B-Complex Markers	4/11/2012	12/26/2012	+/-		
b-Hydroxyisovalerate	30.26 H	9.21	+	9.21 ←	30.26
a-Ketoisovalerate	10.00	10.00			
a-Ketoisocaproate	-29.41 L	-5.88	+	-29.41 →	-5.88
a-Keto-b-methylvalerate	-7.89	-7.89			
Methylmalonate	14.71	26.47 H	-	14.71 →	26.47
Formiminoglutamic Acid	158.33 H	125.00 H	+	125.00 ←	158.33
Xanthurenate	18.09	-5.32	+	-5.32 ←	18.09
PSS / PSD	27.73 / 38.38	21.65 / 27.11			

BCAA Catabolism	4/11/2012	12/26/2012	+/-		
a-Ketoisovalerate	10.00	10.00			
a-Ketoisocaproate	-29.41 L	-5.88	+	-29.41 →	-5.88
a-Keto-b-methylvalerate	-7.89	-7.89			
PSS / PSD	-9.10 / 15.77	-1.26 / 7.93			

Panel/Subset Comparison Report

Anna
Female / Age: 60

Plasma Amino, Plasma Fatty Acid, Organics Date: 12/26/2012

Anna (2718)

CA Cycle Ratios	4/11/2012		12/26/2012		+/-	
CA Cycle Entry	294.30	H	376.17	H	-	294.30 → 376.17
CA Cycle Phase 1	88.53	H	103.42	H	-	88.53 → 103.42
CA Cycle Phase 2	4.41		5.26			
CA Cycle Phase 3	3804.17	H	4325.00	H	-	3804.17 → 4325.00
CA Cycle Phase 4	2033.33	H	2731.25	H	-	2033.33 → 2731.25
CA Cycle Phase 5	257.69	H	66.09	H	+	← 257.69 / 66.09
CA Cycle Phase 6	975.64	H	196.38	H	+	← 975.64 / 196.38
CA Cycle Return	-40.91	L	-32.06	L	+	-40.91 → -32.06
PSS / PSD	927.15 / 937.37		971.44 / 979.45			

Carbohydrate Metabolism	4/11/2012		12/26/2012		+/-
Lactate	5.45		0.00		
Pyruvate	-20.77		-20.77		
a-Hydroxybutyrate	50.00	H	50.00	H	
b-Hydroxybutyrate	-6.67		-6.67		
PSS / PSD	7.00 / 20.72		5.64 / 19.36		

Energy Production	4/11/2012		12/26/2012		+/-	
Citrate	26.15	H	46.70	H	-	26.15 → 46.70
cis-Aconitate	-1.52		10.61		-	-1.52 → 10.61
Isocitrate	9.32		26.27	H	-	9.32 → 26.27
a-Ketoglutarate	-48.74	L	-48.74	L		
Succinate	122.41	H	180.17	H	-	122.41 → 180.17
Fumarate	-27.97	L	27.97	H		
Malate	92.86	H	71.43	H	+	← 92.86 / 71.43
Hydroxymethylglutarate	33.33	H	41.67	H	-	33.33 → 41.67
PSS / PSD	25.73 / 45.29		44.51 / 56.69			

Fatty Acid Metabolism	4/11/2012		12/26/2012		+/-	
Adipate	5.77		-5.77			
Suberate	14.71		26.47	H	-	14.71 → 26.47
Ethylmalonate	27.78	H	22.22			
PSS / PSD	16.08 / 16.08		14.31 / 18.15			





Intestinal Dysbiosis	4/11/2012		12/26/2012		+/-	
p-Hydroxyphenyllactate	-25.95	L	-19.62			
Phenylacetate	225.00	H	250.00	H	-	225.00 → 250.00
Phenylpropionate	-36.25	L	-36.25	L		
Tricarballoylate	-17.12		2.05		+	-17.12 → 2.05
Indican	5.00		85.00	H	-	5.00 → 85.00
p-Hydroxybenzoate	61.11	H	0.51		+	← 61.11 / 0.51
D-Lactate	-32.61	L	-32.61	L		
D-Arabinitol	72.22	H	288.89	H	-	72.22 → 288.89
PSS / PSD	31.43 / 59.41		67.25 / 89.37			






Panel/Subset Comparison Report

Anna
Female / Age: 60

Plasma Amino, Plasma Fatty Acid, Organics Date: 12/26/2012

Anna (2718)

Liver Detox Indicators	4/11/2012		12/26/2012		+/-	
2-Methylhippurate	-23.81		9.52		+	-23.81  9.52
Glucarate	59.52	H	26.19	H	+	26.19  59.52
Orotate	241.30	H	296.38	H	-	241.30  296.38
Pyroglutamate	39.83	H	44.92	H		
Sulfate	128.04	H	58.64	H	+	58.64  128.04
a-Hydroxybutyrate	50.00	H	50.00	H		
PSS / PSD	82.48 / 90.42		80.94 / 80.94			

Neurotransmitters	4/11/2012		12/26/2012		+/-	
Vanilmandelate	-54.76	L	-40.48	L	+	-54.76  -40.48
Homovanillate	2.38		-23.81		-	-23.81  2.38
5-Hydroxyindoleacetate	1298.57	H	401.43	H	+	401.43  1298.57
Kynurenate	18.42		-2.63		+	-2.63  18.42
Quinolinate	-20.00		42.50	H	-	-20.00  42.50
PSS / PSD	248.92 / 278.83		75.40 / 102.17			

Village Pharmacy

898 Tanager Street
Incline Village, NV 89451
Tel: (775) 831-1133
Fax: (775) 831-2228

Ordering Practitioner
Anna

Custom Amino Acid Profile

Biochemically Individualized for your patient

Client

Anna

Visit date

12/26/2012

Order Payment and Delivery Information

To order, complete and FAX to (775) 831-2228.

Ship to: _____

Address: _____

City, State, Zip: _____

Phone: _____

Credit Card Number: _____

Expires: _____

Authorizing Signature: _____

Amino Acid Customization Details

	Container Base Grams	Test Result	% Status	Grams Added
L-Arginine	19.50	40	-39.81	0
L-Histidine	13.50	50	-62.28	6
L-Isoleucine	13.50	46	-34.06	0
L-Leucine	12.00	93	-34.43	0
L-Lysine	12.00	154	-32.83	0
L-Methionine	15.00	16	-44.12	0
L-Phenylalanine	15.00	46	-42.45	0
L-Taurine	8.10	72	-9.81	0
L-Threonine	13.50	72	-50.70	3
L-Tryptophan (as 5-HTP)	0.90	54	-5.77	0
L-Valine	15.00	197	-27.23	0
Total Base Grams: 138.00		Total Grams Added:		9

Other Ingredients *

Grams per Container	Grams per Container
Alanine 26.88	Tyrosine 0.36
Alpha-Ketoglutarate 12.00	Magnesium 2.01
Aspartic Acid 11.04	P5P (B6) 1.005
Glycine 67.92	Folic Acid 0.67
Glutamic Acid 16.98	Zinc 0.67
Glutamine 7.50	
Proline 30.96	
Serine 8.76	

* Flavored product may include additional ingredients not shown.

Customization exclusively from Lab Interpretation's LabAssist™ interpretive report, and KTS Products Synerplex Amino Acids.