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Anna Salanti

Date: 12/31/2013

Next Test Due: 7/1/2014

LabAssist™ Amino Acid & Organic Acid Report
Practitioner

Printed on Friday, January 10, 2014 for:

Anna Salanti
7619 SW 26th Ave.
Portland, OR 97219
503-977-2660
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Basic Status High/Low - Plasma Amino Acids on 12/31/2013

Anna Salanti

Female / Age: 61

Client ID:555986644 (8322)

Amino Acid & Organic Acid Date: 12/31/2013

Anna Salanti (2718)

503-977-2660

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

Low Results

	-80	-60	-40	-20	0		% Status	Result	Low	High
						Histidine	-78.57 L	79.00	83.00	97.00
						Aspartic Acid	-50.00 L	3.50	3.50	8.60
						Serine	-43.85 L	78.00	74.00	139.00
						Glycine	-42.92 L	208.00	192.00	418.00
						Ornithine	-42.00 L	40.00	36.00	86.00
						Threonine	-41.67 L	95.00	88.00	172.00
						Phosphoethanolamine	-41.30 L	0.40	0.00	4.60
						Isoleucine	-26.19 L	50.00	40.00	82.00
						Sarcosine	-25.21 L	3.00	0.00	12.10

-25%

High Results

	-20	0	20	40	60		% Status	Result	Low	High
						α-Aminoadipic Acid	50.00 H	0.50	0.00	0.50
						GABA	46.67 H	0.58	0.00	0.60
						Hydroxylysine	46.67 H	0.58	0.00	0.60
						Phosphoserine	46.00 H	0.48	0.00	0.50
						1-Methylhistidine	45.83 H	6.90	0.00	7.20
						Cystine	43.88 H	15.40	1.60	16.30
						α-Amino-N-Butyric Acid	42.86 H	26.00	0.00	28.00
						Homocystine	41.67 H	0.55	0.00	0.60
						Citrulline	41.30 H	43.00	22.00	45.00
						3-Methylhistidine	39.19 H	33.00	0.00	37.00
						Anserine	38.89 H	32.00	0.00	36.00
						Tryptophan	36.67 H	65.00	39.00	69.00
						Cystathionine	33.33 H	0.25	0.00	0.30
						Alanine	33.27 H	513.00	284.00	559.00
						Hydroxyproline	31.25 H	13.00	0.00	16.00
						Ethanolamine	28.49 H	7.30	0.00	9.30
						Glycine/Serine Ratio	27.78 H	2.67	1.50	3.00

25%

Basic Status High/Low - Urine Organic Acids on 12/31/2013

Anna Salanti

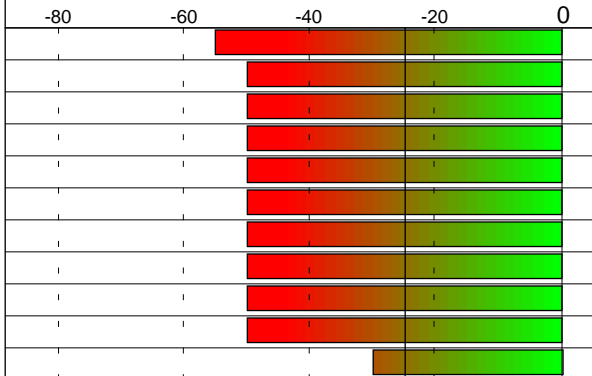
Amino Acid & Organic Acid Date: 12/31/2013

Female / Age: 61

Anna Salanti (2718)

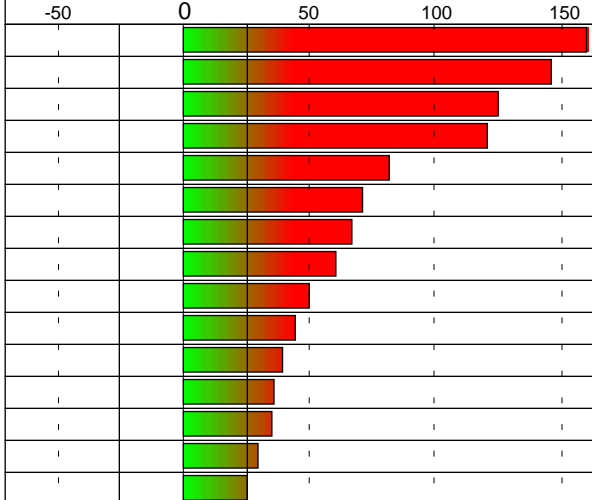
The % Status is the weighted deviation of the laboratory result.

Low Results

-80	-60	-40	-20	0		% Status	Result	<i>Low</i>	<i>High</i>
									
					Vanilmandelate	-54.76 L	1.70	1.80	3.90
					a-Hydroxybutyrate	-50.00 L	0.00	0.00	0.30
					a-Keto-b-methylvalerate	-50.00 L	0.00	0.00	0.38
					a-Ketoisocaproate	-50.00 L	0.00	0.00	0.34
					a-Ketoisovalerate	-50.00 L	0.00	0.00	0.25
					b-Hydroxybutyrate	-50.00 L	0.00	0.00	2.10
					DHPP	-50.00 L	0.00	0.00	0.12
					Phenylpropionate	-50.00 L	0.00	0.00	0.40
					Pyruvate	-50.00 L	0.00	0.00	3.90
					Tricarballylate	-50.00 L	0.00	0.00	0.73
					a-Ketoglutarate	-30.00 L	3.80	0.00	19.00

-25%

High Results

-50	0	50	100	150		% Status	Result	<i>Low</i>	<i>High</i>
									
					Benzoate	2466.67 H	15.10	0.00	0.60
					Orotate	145.65 H	1.35	0.00	0.69
					Phenylacetate	125.00 H	0.07	0.00	0.04
					Hippurate	120.37 H	1012.00	0.00	594.00
					Succinate	81.90 H	15.30	0.00	11.60
					Malate	71.43 H	1.70	0.00	1.40
					Formiminoglutamic Acid	66.67 H	1.40	0.00	1.20
					Indican	60.00 H	44.00	0.00	40.00
					Quinolinate	50.00 H	4.00	0.00	4.00
					Pyroglutamate	44.92 H	56.00	0.00	59.00
					Citrate	38.99 H	541.00	56.00	601.00
					5-Hydroxyindoleacetate	35.71 H	5.10	2.10	5.60
					Lactate	34.55 H	12.30	3.00	14.00
					Glucarate	29.37 H	5.00	0.00	6.30
					Ethylmalonate	25.00 H	2.70	0.00	3.60

-25%

25%

Basic Status Alphabetic - Plasma Amino Acids on 12/31/2013

Anna Salanti
Female / Age: 61

Amino Acid & Organic Acid Date: 12/31/2013

Anna Salanti (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	45.83 H	6.90	0.00	7.20
						3-Methylhistidine	39.19 H	33.00	0.00	37.00
						a-Amino adipic Acid	50.00 H	0.50	0.00	0.50
						a-Amino-N-Butyric Acid	42.86 H	26.00	0.00	28.00
						Alanine	33.27 H	513.00	284.00	559.00
						Anserine	38.89 H	32.00	0.00	36.00
						Arginine	-9.38	69.00	43.00	107.00
						Asparagine	-15.63	50.00	39.00	71.00
						Aspartic Acid	-50.00 L	3.50	3.50	8.60
						b-Alanine	-3.57	1.30	0.00	2.80
						Carnosine	-22.92	1.30	0.00	4.80
						Citrulline	41.30 H	43.00	22.00	45.00
						Cystathionine	33.33 H	0.25	0.00	0.30
						Cystine	43.88 H	15.40	1.60	16.30
						Ethanolamine	28.49 H	7.30	0.00	9.30
						GABA	46.67 H	0.58	0.00	0.60
						Glutamic Acid	-13.11	71.00	33.00	136.00
						Glutamine	-6.55	594.00	458.00	771.00
						Glycine	-42.92 L	208.00	192.00	418.00
						Glycine/Serine Ratio	27.78 H	2.67	1.50	3.00
						Histidine	-78.57 L	79.00	83.00	97.00
						Homocystine	41.67 H	0.55	0.00	0.60
						Hydroxylysine	46.67 H	0.58	0.00	0.60
						Hydroxyproline	31.25 H	13.00	0.00	16.00
						Isoleucine	-26.19 L	50.00	40.00	82.00
						Leucine	-12.34	116.00	87.00	164.00
						Lysine	14.66	222.00	147.00	263.00
						Methionine	-20.59	22.00	17.00	34.00
						Ornithine	-42.00 L	40.00	36.00	86.00
						Phenylalanine	-12.07	59.00	48.00	77.00
						Phosphoethanolamine	-41.30 L	0.40	0.00	4.60
						Phosphoserine	46.00 H	0.48	0.00	0.50
						Proline	-20.00	167.00	119.00	279.00
						Sarcosine	-25.21 L	3.00	0.00	12.10
						Serine	-43.85 L	78.00	74.00	139.00
						Taurine	15.08	77.00	36.00	99.00
						Threonine	-41.67 L	95.00	88.00	172.00
						Tryptophan	36.67 H	65.00	39.00	69.00
						Tyrosine	14.29	72.00	45.00	87.00
						Valine	7.05	252.00	167.00	316.00
						Total Status Deviation	31.32			
						Total Status Skew	4.92			

Basic Status Alphabetic - Urine Organic Acids on 12/31/2013

Anna Salanti
Female / Age: 61

Amino Acid & Organic Acid Date: 12/31/2013

Anna Salanti (2718)

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

-100	-50	0	50	100		% Status	Result	Low	High
						7.14	0.05	0.00	0.08
						35.71 H	5.10	2.10	5.60
						14.15	3.40	0.00	5.30
						-21.15	1.50	0.00	5.20
						-50.00 L	0.00	0.00	0.30
						-50.00 L	0.00	0.00	0.38
						-30.00 L	3.80	0.00	19.00
						-50.00 L	0.00	0.00	0.34
						-50.00 L	0.00	0.00	0.25
						2466.67 H	15.10	0.00	0.60
						-50.00 L	0.00	0.00	2.10
						2.63	4.00	0.00	7.60
						22.73	42.00	18.00	51.00
						38.99 H	541.00	56.00	601.00
						8.33	21.00	0.00	36.00
						-50.00 L	0.00	0.00	0.12
						19.57	1.60	0.00	2.30
						25.00 H	2.70	0.00	3.60
						66.67 H	1.40	0.00	1.20
						0.85	0.30	0.00	0.59
						29.37 H	5.00	0.00	6.30
						120.37 H	1012.00	0.00	594.00
						23.81	5.20	2.10	6.30
						22.22	2.60	0.00	3.60
						60.00 H	44.00	0.00	40.00
						0.85	69.00	39.00	98.00
						7.89	1.10	0.00	1.90
						34.55 H	12.30	3.00	14.00
						71.43 H	1.70	0.00	1.40
						8.82	1.00	0.00	1.70
						145.65 H	1.35	0.00	0.69
						125.00 H	0.07	0.00	0.04
						-50.00 L	0.00	0.00	0.40
						20.71	0.70	0.00	0.99
						-18.42	6.00	0.00	19.00
						-4.43	0.36	0.00	0.79
						44.92 H	56.00	0.00	59.00
						-50.00 L	0.00	0.00	3.90
						50.00 H	4.00	0.00	4.00
						-2.94	0.80	0.00	1.70
						81.90 H	15.30	0.00	11.60
						15.30	1865.00	958.00	2347.00
						-50.00 L	0.00	0.00	0.73
						-54.76 L	1.70	1.80	3.90
						-3.19	0.22	0.00	0.47
						92.12			
						65.56			

Client Summary Review

Anna Salanti
Female / Age: 61

Amino Acid & Organic Acid Date: 12/31/2013

Anna Salanti (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-CoEnzyme Q10
2x daily 100 mg |
| <input type="checkbox"/> 1-Folic Acid
2x daily 800 mcg | <input type="checkbox"/> 1-Magnesium
2x daily 360 mg (After meals) |
| <input type="checkbox"/> 1-Pyridoxal-5-Phosphate
2x daily 50 mg | <input type="checkbox"/> 1-Pyridoxal-5-Phosphate
2x daily 50 mg |
| <input type="checkbox"/> 1-Whey Protein
See Nutrition Detail | <input type="checkbox"/> 2-Vitamin E & Beta-carotene
1x daily see details |

Foods to AVOID

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

Green Tea

Practitioner Summary Review

Anna Salanti
Female / Age: 61

Amino Acid & Organic Acid Date: 12/31/2013
Anna Salanti (2718)

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	104.18%	91.88%
BCAA Catabolism	50.00%	-50.00%
Liver Detox Indicators	48.73%	32.06%
Carbohydrate Metabolism	46.14%	-28.86%
Intestinal Dysbiosis	43.12%	8.80%
Magnesium Dependents	40.19%	6.13%
Gluconeogen	39.67%	-11.70%
Muscle Metabolites	36.71%	25.25%
Neurotransmitters	34.44%	12.53%
Energy Production	33.62%	26.12%
CNS Metabolism	33.35%	-1.92%
B-Complex Markers	33.04%	-10.72%
Neuroendocrine Metab	32.56%	-2.15%
Ammonia/Energy	31.15%	-7.23%
Detoxification Markers	29.84%	-10.18%
Hepatic Metabolism	27.77%	20.01%
Connective Tissue	27.62%	14.39%
Urea Cycle Metabolites	27.48%	-13.71%
Essential Amino Acid	25.92%	-14.24%

Lab Reported out-of-range Values

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

Benzoate (2466.67%)

An elevated reading of this organic acid may mean an overgrowth of certain intestinal microbiota, ingestions of excessive benzoic acid in the diet (preserved foods, pickles, lunch meats, cranberries), or poor Phase II detoxification capabilities as the conjugation of benzoate with glycine is very efficient. The presence of this compound may be due to the action of the bacteria on phenylalanine. Assessment of amino acid competency may be helpful especially plasma glycine.

CA Cycle Phase 6 (327.78%)

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.

CA Cycle Phase 3 (176.97%)

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 α -ketoglutarate.

Orotate (145.65%)

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, α ketoglutarate, and magnesium may be helpful.

Phenylacetate (125.00%)

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.

Hippurate (120.37%)

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

Succinate (81.90%)

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

CA Cycle Phase 1 (78.81%)

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.

Histidine (-78.57%)

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

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

Formiminoglutamic Acid (66.67%)

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

Indican (60.00%)

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

Vanilmandelate (-54.76%)

Low levels of this organic acid may be related to low CNS levels of epinephrine and norepinephrine. Clinical signs include depression, sleep disturbances, and the inability to handle stress and fatigue.

Drugs which may have an adverse affect:

Clonidine, Imipramine, MAO Inhibitors, Methyldopa, Reserpine

CA Cycle Phase 5 (52.00%)

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.

CA Cycle Phase 4 (50.66%)

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.

a-Amino adipic Acid (50.00%)

An excess of this amino acid may be indicative of an inhibition of lysine metabolism and may necessitate the supplementation of B6.

a-Hydroxybutyrate (-50.00%)

This organic acid is the last step of glutathione synthesis from methionine through cysteine. Low levels are desirable but not indicative of any positive or negative health issues.

a-Keto-b-methylvalerate (-50.00%)

No known health issues are related to low levels of a-keto-β-methylvalerate.

a-Ketoisocaproate (-50.00%)

No known health issues are related to low levels of a-ketoisocaproate.

a-Ketoisovalerate (-50.00%)

No known health issues are related to low levels of a-ketoisovalerate.

Aspartic Acid (-50.00%)

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.

b-Hydroxybutyrate (-50.00%)

No known health issues are related to low levels of β-hydroxybutyrate.

DHPP (-50.00%)

No known health issues are related to low levels of DHPP.

Phenylpropionate (-50.00%)

No known health issues are related to low levels of phenylpropionate.

Pyruvate (-50.00%)

No known health issues are related to low levels of pyruvate.

Pyruvate to Lactate (-50.00%)

A low reading may be indicative of a blockade in the entry point of the citric acid cycle thereby impacting the ability of the body to derive energy from carbohydrates.

Quinolate (50.00%)

A high reading of quinolate is indicative of oxidative stress that may be favorably resolved by the use of a broad spectrum of antioxidants. It is also a marker for deranged tryptophan metabolism and is an antagonist of the NMDA receptors leading to a decreased seizure threshold in epileptics. It is also found often in ongoing bacterial, fungal, viral and parasitic infections.

If the markers for phthalates are also elevated, it is important to avoid the plasticizer in your environment and undergo a detoxification program as phthalates have been implicated in increased quinolinic acid.

Tricarballylate (-50.00%)

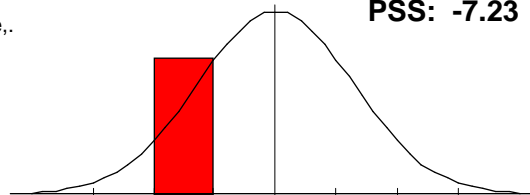
No known health issues are related to low levels of tricarballylate.

Ammonia/Energy

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

PSD: 31.15
PSS: -7.23

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.

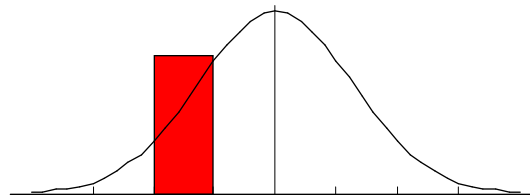


CNS Metabolism

Arginine, Tryptophan[H], GABA[H], Glycine[L], Serine[L], Taurine, Aspartic Acid[L], Glutamine, Ethanolamine[H], Phosphoethanolamine[L], Phos.

PSD: 33.35
PSS: -1.92

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.

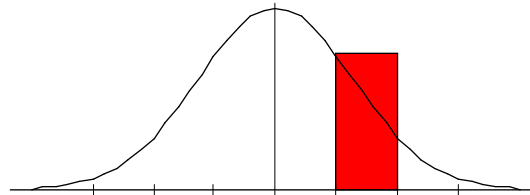


Connective Tissue

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

PSD: 27.62
PSS: 14.39

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 missing enzymes and co-factors necessary in the production of healthy connective tissue and collagen. Symptoms include: brittle hair, dry skin, increased joint aches and pain. Review protein intake and quality of proteins.

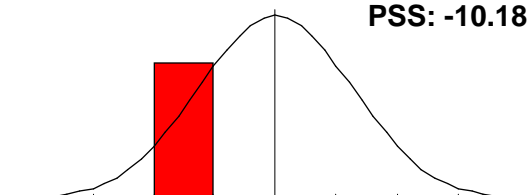


Detoxification Markers

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

PSD: 29.84
PSS: -10.18

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.

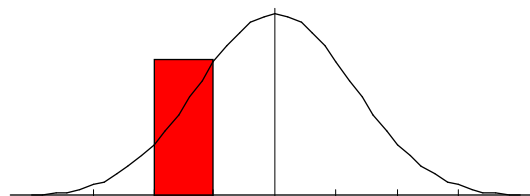


Essential Amino Acid

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

PSD: 25.92
PSS: -14.24

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.



Panel/Subset Report

Anna Salanti
Female / Age: 61

Amino Acid & Organic Acid Date: 12/31/2013

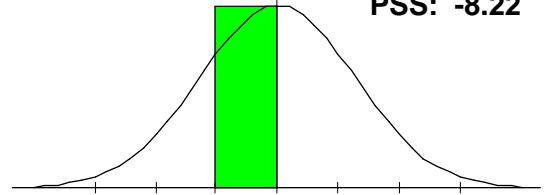
Anna Salanti (2718)

Fat Metabolism

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

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 shows a percent imbalance below 25%, so no abnormalities were found.

PSD: 14.54
PSS: -8.22

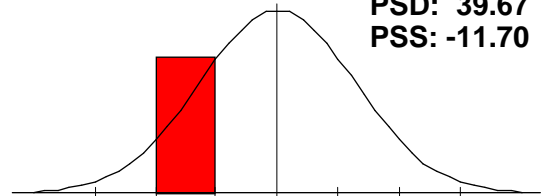


Gluconeogen

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

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.

PSD: 39.67
PSS: -11.70

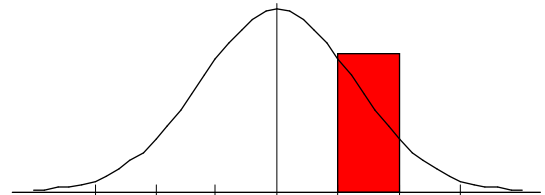


Hepatic Metabolism

Methionine, Taurine, Glutamine, Cystine[H], Cystathionine[H], Homocystine[H], Alanine[H].

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 shows you're likely missing important nutrients and co-factors necessary for proper amino acid function. Consider reviewing your diet.

PSD: 27.77
PSS: 20.01

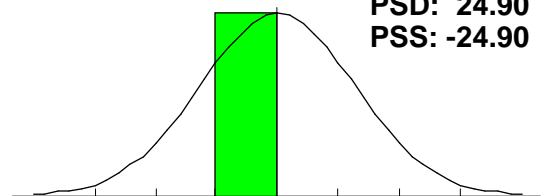


Immune Metabolites

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

This panel shows whether you have adequate amounts of the listed amino acids to properly fight off viral or bacterial infections. This profile shows a percent imbalance below 25%, so no abnormalities were found.

PSD: 24.90
PSS: -24.90

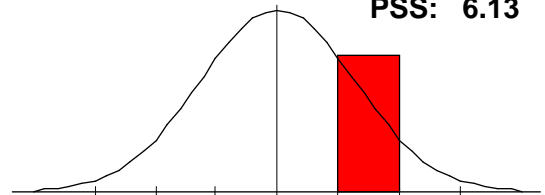


Magnesium Dependents

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

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 may indicate a possible magnesium deficiency. Highly consider further laboratory testing to assess magnesium levels.

PSD: 40.19
PSS: 6.13



Panel/Subset Report

Anna Salanti
Female / Age: 61

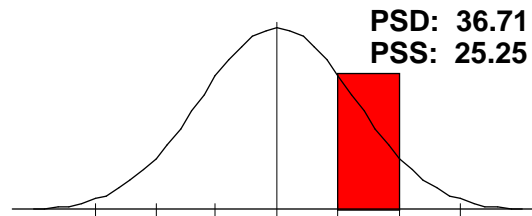
Amino Acid & Organic Acid Date: 12/31/2013

Anna Salanti (2718)

Muscle Metabolites

Anserine[H], Carnosine, 1-Methylhistidine[H], 3-Methylhistidine[H].

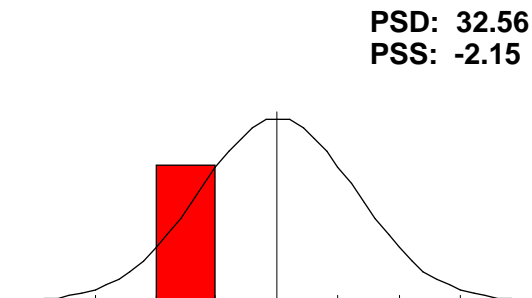
Amino acids are the basic building blocks critical in building muscle tissue. This profile shows you're likely missing important nutrients and co-factors necessary for proper amino acid function. Refer to your Supplement List Explanation.



Neuroendocrine Metab

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

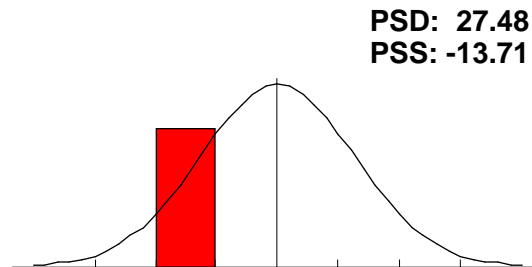
This panel shows whether you have enough of the listed amino acids necessary for the proper functioning of your endocrine system. The endocrine system comprises the control organs of the body such as: thymus, pancreas, and thyroid. This profile may indicate you don't have an adequate amount of the listed 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, Aspartic Acid[L], Citrulline[H], Ornithine[L], Glutamine, Asparagine.

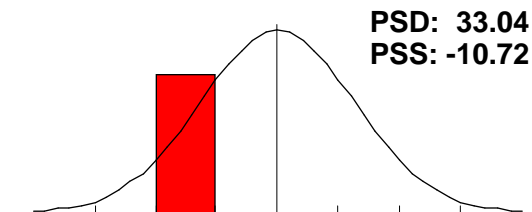
This panel shows your supply of the amino acids related to the urea cycle. This metabolic process helps you remove excess ammonia from your system. This profile indicates you don't have an adequate supply of the listed amino acids necessary to flush out excess ammonia. Excess ammonia can cause neurological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



B-Complex Markers

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

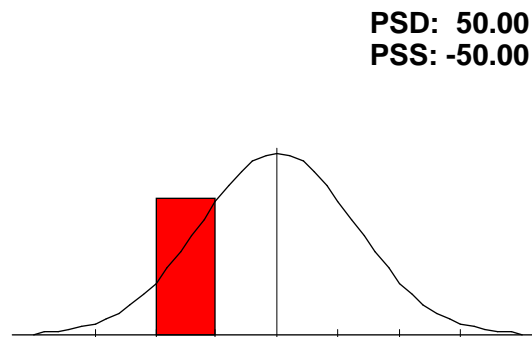
This panel assesses adequate intake of B-complex vitamins. This profile may indicate a poor amino acid metabolism or a lack of quality protein in the diet.



BCAA Catabolism

a-Ketoisovalerate[L], a-Ketoisocaproate[L], a-Keto-b-methylvalerate[L].

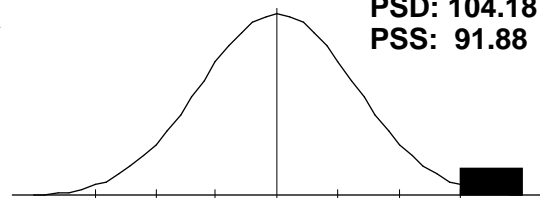
BCAA's are essential in building muscle and you can only get them from your diet or supplements. This panel assess your BCAA levels and how they're being used. This profile may indicate an inadequate supply of BCAAs. Consider supplementation. Note: supplementing with single branch chain amino acids is highly not recommended. All 3 branch chain amino acids (Isoleucine, Leucine and Valine) must be taken together.



CAC Cycle Ratios

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], CA Cycle Return[L].

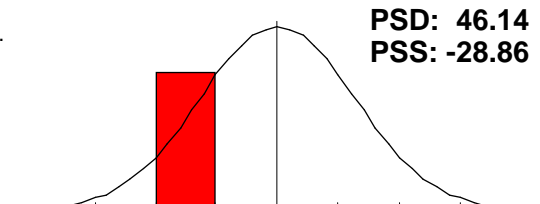
This panel reviews cellular energy producing cycles to maintain health and weight. This profile may indicate a heavy toxin load. Consider running additional environmental toxicity tests.



Carbohydrate Metabolism

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

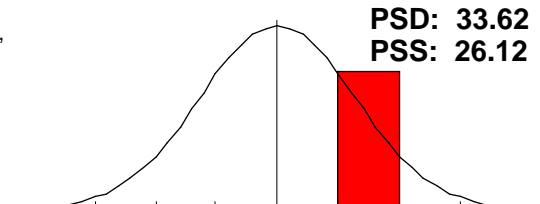
This panel assesses your body's ability to metabolize dietary carbohydrates. This profile could indicate a low carbohydrate intake. Symptoms include low energy and poor blood sugar control.



Energy Production

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

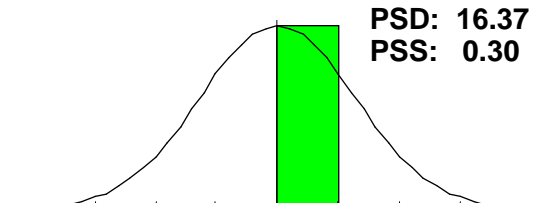
This panel reviews cellular energy producing cycles to maintain health and weight. This profile may indicate a breakdown in the Citric Acid Cycle. Review your Supplement List Explanation.



Fatty Acid Metabolism

Adipate, Suberate, Ethylmalonate[H].

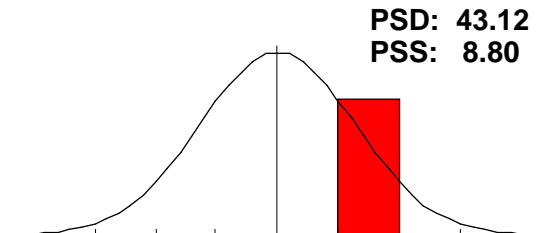
This panel assesses how fats are being broken down and utilized by the body. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Intestinal Dysbiosis

p-Hydroxyphenyllactate, Phenylacetate[H], Phenylpropionate[L], Tricarballlylate[L], DHPP[L], Indican[H], p-Hydroxybenzoate, D-Lactate, D-Arab.

Disbyosis 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.

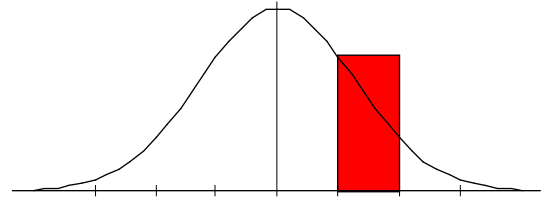


Liver Detox Indicators

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

PSD: 48.73
PSS: 32.06

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..

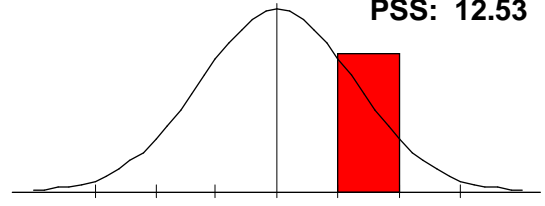


Neurotransmitters

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

PSD: 34.44
PSS: 12.53

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 Salanti

Female / Age: 61

Amino Acid & Organic Acid Date: 12/31/2013

Anna Salanti (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
MAO Inhibitors
Reserpine(2)

Ampicillin
Cortisol
Methotrexate
Salicylates

Aspirin(2)
Imipramine
Methyldopa
Valproic Acid

Clonidine
Lithium Carbonate(3)
Prozac

Nutrition - Detail

Anna Salanti

Female / Age: 61

Amino Acid & Organic Acid Date: 12/31/2013

Anna Salanti (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-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

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

Normal

Increased

Formiminoglutamic Acid

1-Magnesium 2x daily 360 mg After meals

Second most abundant cation in intracellular fluid. It helps facilitate Na - K transport and influences Ca levels. 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.

Decreased

Normal

Increased

Phosphoserine

1-Pyridoxal-5-Phosphate 2x daily 50 mg

B6 function involves many complex interrelated functions around amino acid metabolism. Cell processes involve PLP in immune modulation, fatty acids, steroid hormone, receptors, neurotransmitters, gluconeogenesis, and heme synthesis.

Decreased

Normal

Increased

Cystathionine

1-Pyridoxal-5-Phosphate 2x daily 50 mg

When cystathionine is elevated and cystine is depressed, this may indicate an increased risk of cardiovascular disease since cystathionine is the degradation product of homocysteine.

Decreased

Normal

Increased

Cystine
Cystathionine

1-Whey Protein See Nutrition Detail

High quality whey protein is one of the most effective means of boosting glutathione levels which seem to be deficient in this case. The whey should also contain an array of vitamins (especially vitamin C) and minerals along with immunoglobulins, glycine and N-acetyl cysteine. For adults, at least one serving full serving and for children one-half a serving per day is recommended.

Decreased

Normal

Increased

a-Hydroxybutyrate

Pyroglutamate

2-Vitamin E & Beta-carotene 1x daily see details

Vitamin E 800 IU - Adult, 400 IU - Children

Vitamin E is a major antioxidant, scavenging free radicals - enhancing lymphocyte production, increasing nitrogen retention, maintaining cellular integrity, and aiding in the biosynthesis of heme proteins.

Beta-carotene 25,000 IU - Adult, 12,500 - Children

Beta-carotene 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. Do not take if pregnant.

Decreased

Normal

Increased

1-Methylhistidine

Clinical Correlation

Anna Salanti

Female / Age: 61

Amino Acid & Organic Acid Date: 12/31/2013

Anna Salanti (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.

Collagen Production Imbalance (270.1)

66.67% (2 of 3)

Decreased

-20.00 Proline

Normal

Increased

31.25 Hydroxyproline

46.67 Hydroxylysine

Glycine/Serine Metabolism Disorder ()

66.67% (4 of 6)

Decreased

-43.85 Serine

-42.92 Glycine

Normal

Increased

28.49 Ethanolamine

-41.30 Phosphoethanolamine

46.00 Phosphoserine

-25.21 Sarcosine

Comparison Progress Report

Anna Salanti

Female / Age: 61

Amino Acid & Organic Acid Date: 12/31/2013

Anna Salanti (2718)

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

	Status % on:	7/23/2013		12/31/2013		+/- change
Hydroxyproline		65.38	H	31.25	H	+ 34.13
Sarcosine		55.50	H	-25.21	L	+ 30.29
Histidine		-13.16		-78.57	L	- 65.41
Phosphoserine		0.00		46.00	H	- 46.00
Anserine		-1.16		38.89	H	- 37.73
Hydroxylysine		10.00		46.67	H	- 36.67
3-Methylhistidine		3.85		39.19	H	- 35.34
Homocystine		10.00		41.67	H	- 31.67
Cystine		-14.07		43.88	H	- 29.80
a-Amino-N-Butyric Acid		-14.10		42.86	H	- 28.75
Citrulline		14.10		41.30	H	- 27.20
a-Aminoadipic Acid		-25.00	L	50.00	H	- 25.00

Comparison Report

Anna Salanti

Female / Age: 61

Amino Acid & Organic Acid Date: 12/31/2013

Anna Salanti (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:	7/23/2013	12/31/2013
36.00 → 45.83	-		36.00 H	45.83 H
3.85 → 39.19	-		3.85	39.19 H
-25.00 → 50.00	-		-25.00 L	50.00 H
-14.10 → 42.86	-		-14.10	42.86 H
11.42 → 33.27	-		11.42	33.27 H
-1.16 → 38.89	-		-1.16	38.89 H
			Arginine	12.04
			Asparagine	-21.19
-50.00 ← -33.00	-		-33.00 L	-50.00 L
			Carnosine	-30.00 L
14.10 → 41.30	-		14.10	41.30 H
-14.07 → 43.88	-		-14.07	43.88 H
12.50 → 28.49	-		12.50	28.49 H
			Glutamic Acid	-14.74
-27.98 → -6.55	+		-27.98 L	-6.55
-42.92 ← -27.96	-		-27.96 L	-42.92 L
27.78 ← 38.76	+		38.76 H	27.78 H
-78.57 ← -13.16	-		-13.16	-78.57 L
10.00 → 41.67	-		10.00	41.67 H
10.00 → 46.67	-		10.00	46.67 H
31.25 ← 65.38	+		65.38 H	31.25 H
			Isoleucine	-28.26 L
			Leucine	-18.85
-2.02 → 14.66	-		-2.02	14.66
			Methionine	-17.65
-42.00 ← -21.91	-		-21.91	-42.00 L
-27.36 → -12.07	+		-27.36 L	-12.07
-41.30 ← -31.43	-		-31.43 L	-41.30 L
0.00 → 46.00	-		0.00	46.00 H
			Proline	-26.14 L
-25.21 ← 55.50	+		55.50 H	-25.21 L
-43.85 ← -29.46	-		-29.46 L	-43.85 L
			Taurine	-7.94
-41.67 ← -22.03	-		-22.03	-41.67 L
19.23 → 36.67	-		19.23	36.67 H
			Tyrosine	-16.67
			Valine	-13.84
			Total Status Deviation	20.94
			Total Status Skew	-5.33
				4.92

Comparison Progress Report

Anna Salanti

Female / Age: 61

Amino Acid & Organic Acid Date: 12/31/2013

Anna Salanti (2718)

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

	Status % on: 7/23/2013		12/31/2013		+/- change
Benzoate	5583.33	H	2466.67	H	+3116.67
CA Cycle Phase 6	821.79	H	327.78	H	+ 494.02
CA Cycle Phase 5	246.92	H	52.00	H	+ 194.92
Suberate	114.71	H	-2.94		+ 111.76
Hippurate	197.64	H	120.37	H	+ 77.27
Tricarallylate	108.90	H	-50.00	L	+ 58.90
CA Cycle Phase 1	120.88	H	78.81	H	+ 42.07
Succinate	116.38	H	81.90	H	+ 34.48
b-Hydroxyisovalerate	30.26	H	2.63		+ 27.63
Fumarate	-27.97	L	0.85		+ 27.12
CA Cycle Phase 3	18.49		176.97	H	- 158.48
Phenylacetate	25.00	H	125.00	H	- 100.00
Orotate	47.10	H	145.65	H	- 98.55
Formiminoglutamic Acid	16.67		66.67	H	- 50.00
b-Hydroxybutyrate	-6.67		-50.00	L	- 43.33
a-Keto-b-methylvalerate	-7.89		-50.00	L	- 42.11
a-Ketoisovalerate	10.00		-50.00	L	- 40.00
Quinolate	15.00		50.00	H	- 35.00
CA Cycle Phase 4	-16.95		50.66	H	- 33.71
Vanilmandelate	-21.43		-54.76	L	- 33.33
Pyruvate	-20.77		-50.00	L	- 29.23
Indican	35.00	H	60.00	H	- 25.00

Comparison Report

Anna Salanti

Female / Age: 61

Amino Acid & Organic Acid Date: 12/31/2013

Anna Salanti (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:	7/23/2013	12/31/2013
				2-Methylhippurate	14.29 7.14
35.71	←	58.57	+	5-Hydroxyindoleacetate	58.57 H 35.71 H
14.15	←	25.47	+	8-Hydroxy-2-deoxyguan	25.47 H 14.15
				Adipate	-19.23 -21.15
				α-Hydroxybutyrate	50.00 H -50.00 L
-50.00	←	-7.89	-	α-Keto-β-methylvalerate	-7.89 -50.00 L
				α-Ketoglutarate	26.84 H -30.00 L
-50.00	←	-29.41	-	α-Ketoisocaproate	-29.41 L -50.00 L
-50.00	←	10.00	-	α-Ketoisovalerate	10.00 -50.00 L
2466.67	←	5583.33	+	Benzoate	5583.33 H 2466.67 H
-50.00	←	-6.67	-	β-Hydroxybutyrate	-6.67 -50.00 L
2.63	←	30.26	+	β-Hydroxyisovalerate	30.26 H 2.63
-1.52	→	22.73	-	cis-Aconitate	-1.52 22.73
				Citrate	46.33 H 38.99 H
				D-Arabinitol	-5.56 8.33
-6.52	→	19.57	-	D-Lactate	-6.52 19.57
25.00	←	38.89	+	Ethylmalonate	38.89 H 25.00 H
16.67	→	66.67	-	Formiminoglutamic Acid	16.67 66.67 H
-27.97	→	0.85	+	Fumarate	-27.97 L 0.85
29.37	←	48.41	+	Glucarate	48.41 H 29.37 H
120.37	←	197.64	+	Hippurate	197.64 H 120.37 H
				Homovanillate	16.67 23.81
				Hydroxymethylglutarate	22.22 22.22
35.00	→	60.00	-	Indican	35.00 H 60.00 H
0.85	←	19.49	+	Isocitrate	19.49 0.85
				Kynurenate	13.16 7.89
				Lactate	35.45 H 34.55 H
				Malate	71.43 H 71.43 H
				Methylmalonate	8.82 8.82
47.10	→	145.65	-	Orotate	47.10 H 145.65 H
25.00	→	125.00	-	Phenylacetate	25.00 H 125.00 H
-50.00	←	-36.25	-	Phenylpropionate	-36.25 L -50.00 L
10.61	→	20.71	-	p-Hydroxybenzoate	10.61 20.71
				p-Hydroxyphenylacetate	18.42 -18.42
-14.56	→	-4.43	+	p-Hydroxyphenyllactate	-14.56 -4.43
31.36	→	44.92	-	Pyroglutamate	31.36 H 44.92 H
-50.00	←	-20.77	-	Pyruvate	-20.77 -50.00 L
15.00	→	50.00	-	Quinolate	15.00 50.00 H
-2.94	←	114.71	+	Suberate	114.71 H -2.94
81.90	←	116.38	+	Succinate	116.38 H 81.90 H
				Sulfate	16.52 15.30
-50.00	←	108.90	+	Tricarballylate	108.90 H -50.00 L
-54.76	←	-21.43	-	Vanilmandelate	-21.43 -54.76 L
-3.19	←	26.60	+	Xanthurenate	26.60 H -3.19
			Total Status Deviation	164.61	92.12
			Total Status Skew	152.71	65.56

Panel/Subset Comparison Report

Anna Salanti
Female / Age: 61

Amino Acid & Organic Acid Date: 12/31/2013

Anna Salanti (2718)

Ammonia/Energy	7/23/2013	12/31/2013	+/-			
Arginine	12.04	-9.38				
Threonine	-22.03	-41.67	L	-	-41.67	← -22.03
Glycine	-27.96	-42.92	L	-	-42.92	← -27.96
Serine	-29.46	-43.85	L	-	-43.85	← -29.46
a-Aminoadipic Acid	-25.00	50.00	L	H	-25.00	→ 50.00
Asparagine	-21.19	-15.63				
Aspartic Acid	-33.00	-50.00	L	-	-50.00	← -33.00
Citrulline	14.10	41.30		H	14.10	→ 41.30
Glutamic Acid	-14.74	-13.11				
Glutamine	-27.98	-6.55	L	+	-27.98	→ -6.55
Ornithine	-21.91	-42.00		L	-42.00	← -21.91
a-Amino-N-Butyric Acid	-14.10	42.86		H	-14.10	→ 42.86
Alanine	11.42	33.27		H	11.42	→ 33.27
PSS / PSD	-15.37 / 21.15	-7.23 / 31.15				

CNS Metabolism	7/23/2013	12/31/2013	+/-			
Arginine	12.04	-9.38				
Tryptophan	19.23	36.67		H	19.23	→ 36.67
Glycine	-27.96	-42.92	L	-	-42.92	← -27.96
Serine	-29.46	-43.85	L	-	-43.85	← -29.46
Taurine	-7.94	15.08				
Aspartic Acid	-33.00	-50.00	L	-	-50.00	← -33.00
Glutamine	-27.98	-6.55	L	+	-27.98	→ -6.55
Ethanolamine	12.50	28.49		H	12.50	→ 28.49
Phosphoethanolamine	-31.43	-41.30	L	-	-41.30	← -31.43
Phosphoserine	0.00	46.00		H	0.00	→ 46.00
PSS / PSD	-11.40 / 20.15	-1.92 / 33.35				

Connective Tissue	7/23/2013	12/31/2013	+/-			
Leucine	-18.85	-12.34				
Methionine	-17.65	-20.59				
Valine	-13.84	7.05				
Cystine	-14.07	43.88		H	-14.07	→ 43.88
Hydroxylysine	10.00	46.67		H	10.00	→ 46.67
Hydroxyproline	65.38	31.25	H	+	31.25	← 65.38
3-Methylhistidine	3.85	39.19		H	3.85	→ 39.19
Proline	-26.14	-20.00	L			
PSS / PSD	-1.41 / 21.22	14.39 / 27.62				

Detoxification Markers	7/23/2013	12/31/2013	+/-			
Methionine	-17.65	-20.59				
Cystine	-14.07	43.88		H	-14.07	→ 43.88
Taurine	-7.94	15.08				
Glutamine	-27.98	-6.55	L	+	-27.98	→ -6.55
Glycine	-27.96	-42.92	L	-	-42.92	← -27.96
Aspartic Acid	-33.00	-50.00	L	-	-50.00	← -33.00
PSS / PSD	-21.43 / 21.43	-10.18 / 29.84				

Panel/Subset Comparison Report

Anna Salanti
Female / Age: 61

Amino Acid & Organic Acid Date: 12/31/2013
Anna Salanti (2718)

Essential Amino Acid	7/23/2013	12/31/2013	+/-	
Arginine	12.04	-9.38		
Histidine	-13.16	-78.57 L	-	-78.57 ← -13.16
Isoleucine	-28.26 L	-26.19 L		
Leucine	-18.85	-12.34		
Lysine	-2.02	14.66	-	-2.02 → 14.66
Methionine	-17.65	-20.59		
Phenylalanine	-27.36 L	-12.07	+	-27.36 → -12.07
Threonine	-22.03	-41.67 L	-	-41.67 ← -22.03
Tryptophan	19.23	36.67 H	-	19.23 → 36.67
Valine	-13.84	7.05		
PSS / PSD	-11.19 / 17.44	-14.24 / 25.92		

Fat Metabolism	7/23/2013	12/31/2013	+/-	
Arginine	12.04	-9.38		
Isoleucine	-28.26 L	-26.19 L		
Leucine	-18.85	-12.34		
Valine	-13.84	7.05		
Taurine	-7.94	15.08		
Glutamine	-27.98 L	-6.55	+	-27.98 → -6.55
Sarcosine	55.50 H	-25.21 L	+	-25.21 ← 55.50
PSS / PSD	-4.19 / 23.49	-8.22 / 14.54		

Gluconeogen	7/23/2013	12/31/2013	+/-	
Threonine	-22.03	-41.67 L	-	-41.67 ← -22.03
Tryptophan	19.23	36.67 H	-	19.23 → 36.67
Glycine	-27.96 L	-42.92 L	-	-42.92 ← -27.96
Serine	-29.46 L	-43.85 L	-	-43.85 ← -29.46
Alanine	11.42	33.27 H	-	11.42 → 33.27
PSS / PSD	-9.76 / 22.02	-11.70 / 39.67		

Hepatic Metabolism	7/23/2013	12/31/2013	+/-	
Methionine	-17.65	-20.59		
Taurine	-7.94	15.08		
Glutamine	-27.98 L	-6.55	+	-27.98 → -6.55
Cystine	-14.07	43.88 H	-	-14.07 → 43.88
Homocystine	10.00	41.67 H	-	10.00 → 41.67
Alanine	11.42	33.27 H	-	11.42 → 33.27
PSS / PSD	-7.70 / 14.84	20.01 / 27.77		

Immune Metabolites	7/23/2013	12/31/2013	+/-	
Arginine	12.04	-9.38		
Threonine	-22.03	-41.67 L	-	-41.67 ← -22.03
Glutamine	-27.98 L	-6.55	+	-27.98 → -6.55
Ornithine	-21.91	-42.00 L	-	-42.00 ← -21.91
PSS / PSD	-14.97 / 20.99	-24.90 / 24.90		

Panel/Subset Comparison Report

Anna Salanti
Female / Age: 61

Amino Acid & Organic Acid Date: 12/31/2013

Anna Salanti (2718)

Magnesium Dependents	7/23/2013	12/31/2013	+/-		
Citrulline	14.10	41.30	H	-	14.10 41.30
Ethanolamine	12.50	28.49	H	-	12.50 28.49
Phosphoethanolamine	-31.43	-41.30	L	-	-41.30 -31.43
Phosphoserine	0.00	46.00	H	-	0.00 46.00
Serine	-29.46	-43.85	L	-	-43.85 -29.46
PSS / PSD	-6.86 / 17.50	6.13 / 40.19			

Muscle Metabolites	7/23/2013	12/31/2013	+/-		
Anserine	-1.16	38.89	H	-	-1.16 38.89
Carnosine	-30.00	-22.92	L	-	
1-Methylhistidine	36.00	45.83	H	-	36.00 45.83
3-Methylhistidine	3.85	39.19	H	-	3.85 39.19
PSS / PSD	2.17 / 17.75	25.25 / 36.71			

Neuroendocrine Metab	7/23/2013	12/31/2013	+/-		
Glycine	-27.96	-42.92	L	-	-42.92 -27.96
Serine	-29.46	-43.85	L	-	-43.85 -29.46
Taurine	-7.94	15.08			
Tyrosine	-16.67	14.29			
PSS / PSD	-20.51 / 20.51	-2.15 / 32.56			

Urea Cycle Metabolites	7/23/2013	12/31/2013	+/-		
Arginine	12.04	-9.38			
Aspartic Acid	-33.00	-50.00	L	-	-50.00 -33.00
Citrulline	14.10	41.30	H	-	14.10 41.30
Ornithine	-21.91	-42.00	L	-	-42.00 -21.91
Glutamine	-27.98	-6.55	L	+	-27.98 -6.55
Asparagine	-21.19	-15.63			
PSS / PSD	-12.99 / 21.70	-13.71 / 27.48			

B-Complex Markers	7/23/2013	12/31/2013	+/-		
b-Hydroxyisovalerate	30.26	2.63	H	+	2.63 30.26
a-Ketoisovalerate	10.00	-50.00	L	-	-50.00 10.00
a-Ketoisocaproate	-29.41	-50.00	L	-	-50.00 -29.41
a-Keto-b-methylvalerate	-7.89	-50.00	L	-	-50.00 -7.89
Methylmalonate	8.82	8.82			
Formiminoglutamic Acid	16.67	66.67	H	-	16.67 66.67
Xanthurenate	26.60	-3.19	H	+	-3.19 26.60
PSS / PSD	7.86 / 18.52	-10.72 / 33.04			

BCAA Catabolism	7/23/2013	12/31/2013	+/-		
a-Ketoisovalerate	10.00	-50.00	L	-	-50.00 10.00
a-Ketoisocaproate	-29.41	-50.00	L	-	-50.00 -29.41
a-Keto-b-methylvalerate	-7.89	-50.00	L	-	-50.00 -7.89
PSS / PSD	-9.10 / 15.77	-50.00 / 50.00			

Panel/Subset Comparison Report

Anna Salanti
Female / Age: 61

Amino Acid & Organic Acid Date: 12/31/2013
Anna Salanti (2718)

CAC Cycle Ratios	7/23/2013		12/31/2013		+/-	
CA Cycle Phase 1	120.88	H	78.81	H	+	78.81 ← 120.88
CA Cycle Phase 2	8.82		-8.93			
CA Cycle Phase 3	18.49		176.97	H	-	18.49 → 176.97
CA Cycle Phase 4	-16.95		50.66	H	-	-16.95 → 50.66
CA Cycle Phase 5	246.92	H	52.00	H	+	52.00 ← 246.92
CA Cycle Phase 6	821.79	H	327.78	H	+	327.78 ← 821.79
CA Cycle Return	-32.16	L	-34.10	L		
PSS / PSD	192.81 / 205.09		91.88 / 104.18			

Carbohydrate Metabolism	7/23/2013		12/31/2013		+/-	
Lactate	35.45	H	34.55	H		
Pyruvate	-20.77		-50.00	L	-	-50.00 ← -20.77
a-Hydroxybutyrate	50.00	H	-50.00	L		
b-Hydroxybutyrate	-6.67		-50.00	L	-	-50.00 ← -6.67
PSS / PSD	14.50 / 28.22		-28.86 / 46.14			

Energy Production	7/23/2013		12/31/2013		+/-	
Citrate	46.33	H	38.99	H		
cis-Aconitate	-1.52		22.73		-	-1.52 → 22.73
Isocitrate	19.49		0.85		+	0.85 ← 19.49
a-Ketoglutarate	26.84	H	-30.00	L		
Succinate	116.38	H	81.90	H	+	81.90 ← 116.38
Fumarate	-27.97	L	0.85		+	-27.97 → 0.85
Malate	71.43	H	71.43	H		
Hydroxymethylglutarate	22.22		22.22			
PSS / PSD	34.15 / 41.52		26.12 / 33.62			

Fatty Acid Metabolism	7/23/2013		12/31/2013		+/-	
Adipate	-19.23		-21.15			
Suberate	114.71	H	-2.94		+	-2.94 ← 114.71
Ethylmalonate	38.89	H	25.00	H	+	25.00 ← 38.89
PSS / PSD	44.79 / 57.61		0.30 / 16.37			

Intestinal Dysbiosis	7/23/2013		12/31/2013		+/-	
p-Hydroxyphenyllactate	-14.56		-4.43		+	-14.56 → -4.43
Phenylacetate	25.00	H	125.00	H	-	25.00 → 125.00
Phenylpropionate	-36.25	L	-50.00	L	-	-50.00 ← -36.25
Tricarballoylate	108.90	H	-50.00	L	+	-50.00 ← 108.90
Indican	35.00	H	60.00	H	-	35.00 → 60.00
p-Hydroxybenzoate	10.61		20.71		-	10.61 → 20.71
D-Lactate	-6.52		19.57		-	-6.52 → 19.57
D-Arabinitol	-5.56		8.33			
PSS / PSD	14.58 / 30.30		8.80 / 43.12			

Panel/Subset Comparison Report

Anna Salanti
Female / Age: 61

Amino Acid & Organic Acid Date: 12/31/2013

Anna Salanti (2718)

Liver Detox Indicators	7/23/2013	12/31/2013	+/-	
2-Methylhippurate	14.29	7.14		
Glucarate	48.41 H	29.37 H	+	29.37 ← 48.41
Orotate	47.10 H	145.65 H	-	47.10 → 145.65
Pyroglutamate	31.36 H	44.92 H	-	31.36 → 44.92
Sulfate	16.52	15.30		
a-Hydroxybutyrate	50.00 H	-50.00 L		
PSS / PSD	34.61 / 34.61	32.06 / 48.73		

Neurotransmitters	7/23/2013	12/31/2013	+/-	
Vanilmandelate	-21.43	-54.76 L	-	-54.76 ← -21.43
Homovanillate	16.67	23.81		
5-Hydroxyindoleacetate	58.57 H	35.71 H	+	35.71 ← 58.57
Kynurenate	13.16	7.89		
Quinolinate	15.00	50.00 H	-	15.00 → 50.00
PSS / PSD	16.39 / 24.96	12.53 / 34.44		

Village Pharmacy

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

Ordering Practitioner
Anna Salanti
503-977-2660

Custom Amino Acid Profile

Biochemically Individualized for your patient

Client
Anna Salanti

Visit date
12/31/2013

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	69	-9.38	0
L-Histidine	13.50	79	-78.57	9
L-Isoleucine	13.50	50	-26.19	0
L-Leucine	12.00	116	-12.34	0
L-Lysine	12.00	222	14.66	0
L-Methionine	15.00	22	-20.59	0
L-Phenylalanine	15.00	59	-12.07	0
L-Taurine	8.10	77	15.08	0
L-Threonine	13.50	95	-41.67	0
L-Tryptophan (as 5-HTP)	0.90	65	36.67	0
L-Valine	15.00	252	7.05	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.