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Reno, NV 89511

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www.labinterpretation.com

Franklin Cook

Date: 5/19/2015

Next Test Due: 11/17/2015

LabAssist™ Foundational Wellness Profile Report

Practitioner

Printed on Tuesday, June 2, 2015 for:

Anna Salanti
7619 SW 26th Ave.
Portland, OR 97219
503-977-2660
503-244-9946 (fax)

Basic Status High/Low - Plasma Amino Acids on 5/19/2015

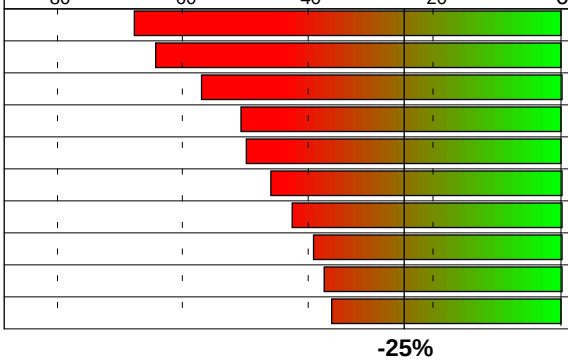
Franklin Cook **Foundational Wellness Profile Date: 5/19/2015**

Male / Age: 71 Anna Salanti (2718)

Client ID:548664859 (9732) 503-977-2660

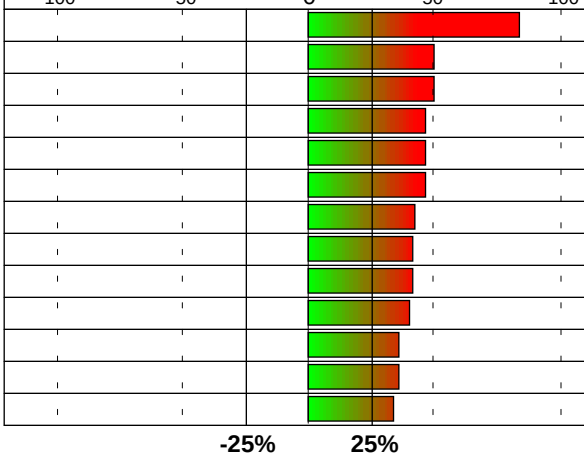
The % Status is the weighted deviation of the laboratory result.

Low Results



	% Status		Result	*Low*	*High*
Aspartic Acid	-67.65	**L**	**2.60**	3.50	8.60
Arginine	-64.06	**L**	**34.00**	43.00	107.00
Threonine	-57.14	**L**	**82.00**	88.00	172.00
Alanine	-50.73	**L**	**282.00**	284.00	559.00
Asparagine	-50.00	**L**	**39.00**	39.00	71.00
Glycine	-46.02	**L**	**201.00**	192.00	418.00
Cystine	-42.52	**L**	**2.70**	1.60	16.30
1-Methylhistidine	-39.31	**L**	**0.77**	0.00	7.20
Serine	-37.69	**L**	**82.00**	74.00	139.00
Proline	-36.25	**L**	**141.00**	119.00	279.00

High Results



	% Status		Result	*Low*	*High*
Tryptophan	83.33	**H**	**79.00**	39.00	69.00
3-Methylhistidine	50.00	**H**	**37.00**	0.00	37.00
a-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
Homocystine	41.67	**H**	**0.55**	0.00	0.60
Citrulline	41.30	**H**	**43.00**	22.00	45.00
Leucine	40.91	**H**	**157.00**	87.00	164.00
Valine	39.93	**H**	**301.00**	167.00	316.00
Anserine	36.11	**H**	**31.00**	0.00	36.00
b-Alanine	35.71	**H**	**2.40**	0.00	2.80
Cystathionine	33.33	**H**	**0.25**	0.00	0.30

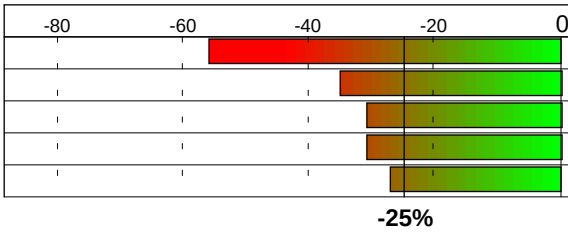
Basic Status High/Low - Blood Test on 5/19/2015

Franklin Cook — **Foundational Wellness Profile Date: 5/19/2015**

Male / Age: 71 — Anna Salanti (2718)

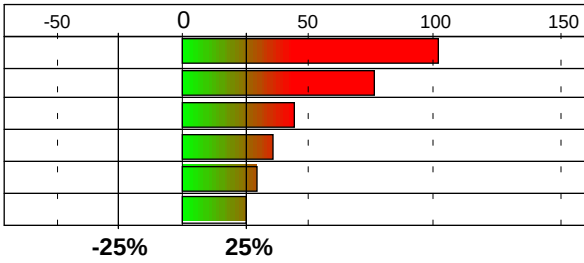
The % Status is the weighted deviation of the laboratory result.

Low Results



	% Status		Result	*Low*	*High*
Creatinine	-55.88	**L**	**0.73**	0.76	1.27
Basophils	-35.00	**L**	**0.30**	0.00	2.00
R.B.C.	-30.67	**L**	**4.39**	4.10	5.60
Lymphocytes	-30.62	**L**	**20.20**	14.00	46.00
W.B.C.	-26.92	**L**	**5.50**	4.00	10.50

High Results



	% Status		Result	*Low*	*High*
B.U.N./Creatinine Ratio	101.43	**H**	**24.66**	8.00	19.00
LDL	76.47	**H**	**148.00**	62.00	130.00
Glucose	44.12	**H**	**97.00**	65.00	99.00
B.U.N.	35.71	**H**	**18.00**	6.00	20.00
Neutrophils	29.41	**H**	**67.00**	40.00	74.00
MCV	25.68	**H**	**93.62**	80.00	98.00

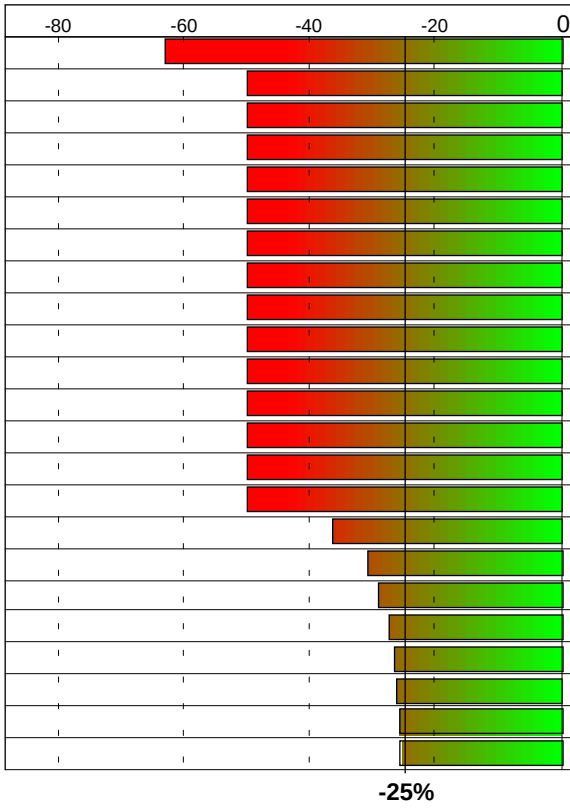
Basic Status High/Low - Urine Organic Acids on 5/19/2015

Franklin Cook — **Foundational Wellness Profile Date: 5/19/2015**

Male / Age: 71 — Anna Salanti (2718)

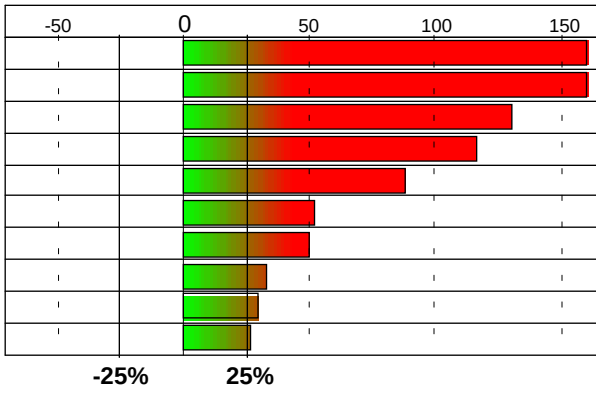
The % Status is the weighted deviation of the laboratory result.

Low Results



	% Status		Result	*Low*	*High*
Vanilmandelate	-63.04	**L**	**1.30**	1.60	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-Ketoglutarate	-50.00	**L**	**0.00**	0.00	19.00
a-Ketoisocaproate	-50.00	**L**	**0.00**	0.00	0.34
a-Ketoisovalerate	-50.00	**L**	**0.00**	0.00	0.25
Benzoate	-50.00	**L**	**0.00**	0.00	0.60
DHPP	-50.00	**L**	**0.00**	0.00	0.05
Fumarate	-50.00	**L**	**0.00**	0.00	0.59
Malate	-50.00	**L**	**0.00**	0.00	1.40
Orotate	-50.00	**L**	**0.00**	0.00	0.69
Phenylpropionate	-50.00	**L**	**0.00**	0.00	0.06
Pyruvate	-50.00	**L**	**0.00**	0.00	3.90
Tricarballylate	-50.00	**L**	**0.00**	0.00	0.73
Xanthurenate	-50.00	**L**	**0.00**	0.00	0.34
Isocitrate	-36.44	**L**	**47.00**	39.00	98.00
D-Arabinitol	-30.56	**L**	**7.00**	0.00	36.00
Adipate	-29.03	**L**	**1.30**	0.00	6.20
Quinolinate	-27.50	**L**	**0.90**	0.00	4.00
Methylmalonate	-26.47	**L**	**0.40**	0.00	1.70
Suberate	-26.19	**L**	**0.50**	0.00	2.10
cis-Aconitate	-25.76	**L**	**26.00**	18.00	51.00
8-Hydroxy-2-deoxyguan	-25.47	**L**	**1.30**	0.00	5.30

High Results



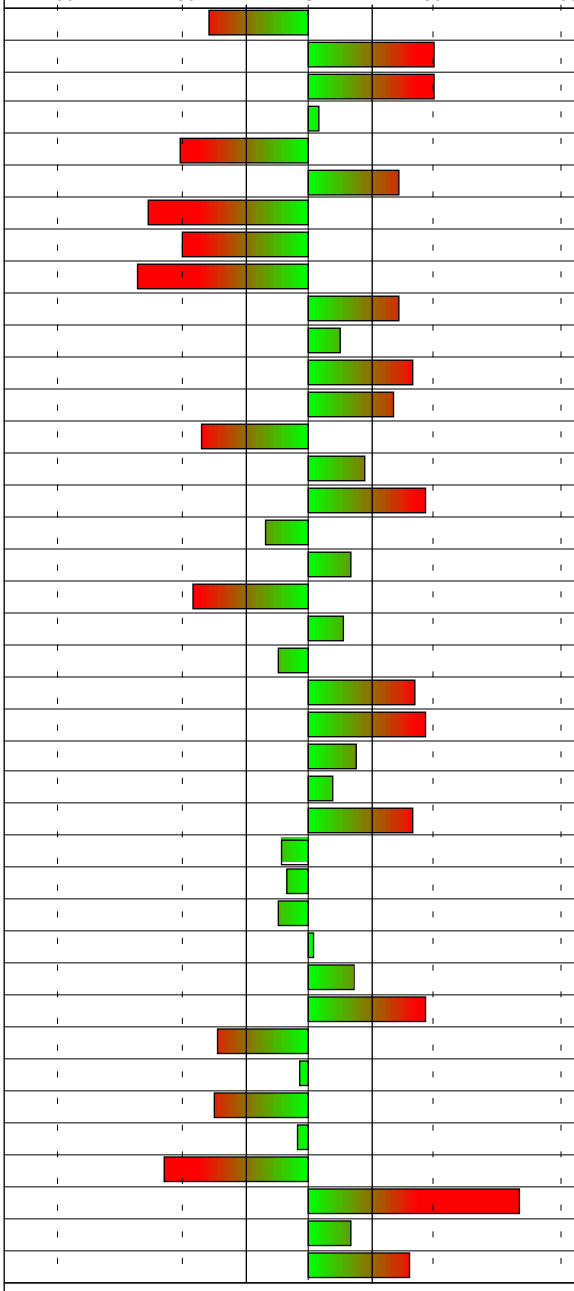
	% Status		Result	*Low*	*High*
5-Hydroxyindoleacetate	2021.43	**H**	**74.60**	2.10	5.60
p-Hydroxybenzoate	1259.09	**H**	**14.40**	0.00	1.10
Lactate	130.00	**H**	**21.40**	1.60	12.60
b-Hydroxybutyrate	116.67	**H**	**3.50**	0.00	2.10
p-Hydroxyphenyllactate	88.46	**H**	**0.54**	0.00	0.39
Succinate	51.72	**H**	**11.80**	0.00	11.60
Hippurate	50.18	**H**	**549.00**	0.00	548.00
Formiminoglutamic Acid	33.33	**H**	**1.00**	0.00	1.20
Kynurenate	30.00	**H**	**0.80**	0.00	1.00
Citrate	26.33	**H**	**472.00**	56.00	601.00

Basic Status Alphabetic - Plasma Amino Acids on 5/19/2015

Franklin Cook **Foundational Wellness Profile Date: 5/19/2015**

Male / Age: 71 Anna Salanti (2718)

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



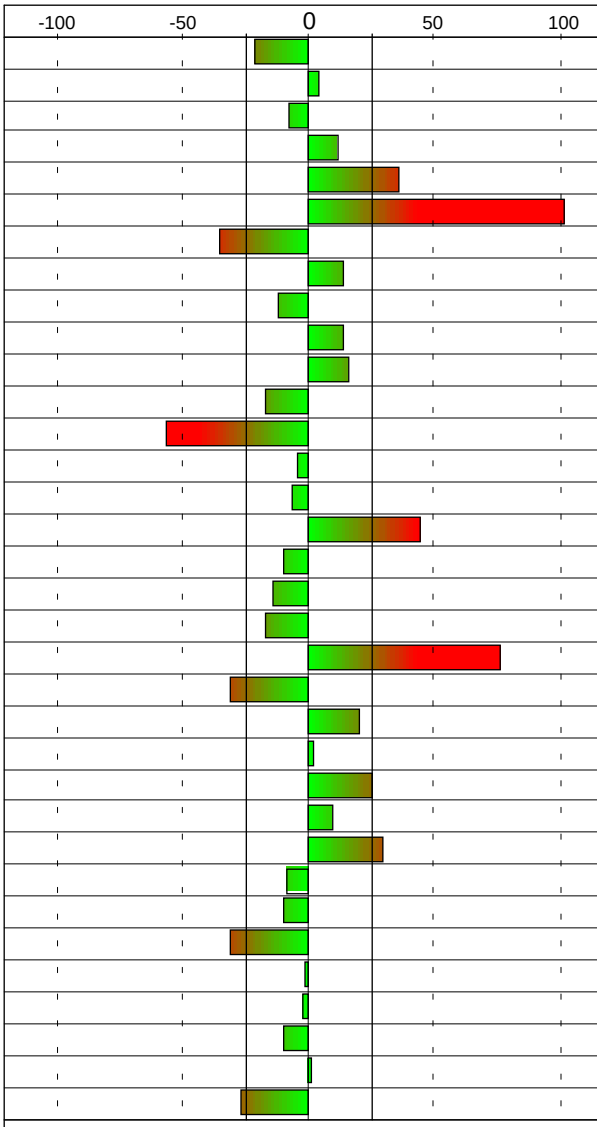
	% Status		Result	Low	High
1-Methylhistidine	**-39.31**	**L**	**0.77**	0.00	7.20
3-Methylhistidine	**50.00**	**H**	**37.00**	0.00	37.00
a-Aminoadipic Acid	**50.00**	**H**	**0.50**	0.00	0.50
a-Amino-N-Butyric Acid	3.57		15.00	0.00	28.00
Alanine	**-50.73**	**L**	**282.00**	284.00	559.00
Anserine	**36.11**	**H**	**31.00**	0.00	36.00
Arginine	**-64.06**	**L**	**34.00**	43.00	107.00
Asparagine	**-50.00**	**L**	**39.00**	39.00	71.00
Aspartic Acid	**-67.65**	**L**	**2.60**	3.50	8.60
b-Alanine	**35.71**	**H**	**2.40**	0.00	2.80
Carnosine	12.50		3.00	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	**-42.52**	**L**	**2.70**	1.60	16.30
Ethanolamine	22.04		6.70	0.00	9.30
GABA	**46.67**	**H**	**0.58**	0.00	0.60
Glutamic Acid	-16.99		67.00	33.00	136.00
Glutamine	16.77		667.00	458.00	771.00
Glycine	**-46.02**	**L**	**201.00**	192.00	418.00
Glycine/Serine Ratio	13.41		2.45	1.50	3.00
Histidine	-11.76		76.00	63.00	97.00
Homocystine	**41.67**	**H**	**0.55**	0.00	0.60
Hydroxylysine	**46.67**	**H**	**0.58**	0.00	0.60
Hydroxyproline	18.75		11.00	0.00	16.00
Isoleucine	9.52		65.00	40.00	82.00
Leucine	**40.91**	**H**	**157.00**	87.00	164.00
Lysine	-11.21		192.00	147.00	263.00
Methionine	-8.82		24.00	17.00	34.00
Ornithine	-12.00		55.00	36.00	86.00
Phenylalanine	1.72		63.00	48.00	77.00
Phosphoethanolamine	17.39		3.10	0.00	4.60
Phosphoserine	**46.00**	**H**	**0.48**	0.00	0.50
Proline	**-36.25**	**L**	**141.00**	119.00	279.00
Sarcosine	-2.89		5.70	0.00	12.10
Serine	**-37.69**	**L**	**82.00**	74.00	139.00
Taurine	-3.97		65.00	36.00	99.00
Threonine	**-57.14**	**L**	**82.00**	88.00	172.00
Tryptophan	**83.33**	**H**	**79.00**	39.00	69.00
Tyrosine	16.67		73.00	45.00	87.00
Valine	**39.93**	**H**	**301.00**	167.00	316.00
Total Status Deviation	**32.08**				
Total Status Skew	**4.12**				

Basic Status Alphabetic - Blood Test on 5/19/2015

Franklin Cook — **Foundational Wellness Profile Date: 5/19/2015**

Male / Age: 71 — Anna Salanti (2718)

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



	% Status		Result	Low	High
A/G Ratio	-21.43		1.50	1.10	2.50
Albumin	3.85		4.20	3.50	4.80
Alkaline Phosphatase	-7.78		82.00	25.00	160.00
Anion Gap	12.00		14.20	8.00	18.00
B.U.N.	**35.71**	**H**	**18.00**	6.00	20.00
B.U.N./Creatinine Ratio	**101.43**	**H**	**24.66**	8.00	19.00
Basophils	**-35.00**	**L**	**0.30**	0.00	2.00
Bilirubin, Total	13.64		0.80	0.10	1.20
Calcium	-11.90		9.30	8.50	10.60
Chloride	13.64		104.00	97.00	108.00
Cholesterol	15.83		219.00	140.00	260.00
CO2	-16.67		24.00	20.00	32.00
Creatinine	**-55.88**	**L**	**0.73**	0.76	1.27
Eosinophils	-4.29		3.20	0.00	7.00
Globulin	-6.67		2.80	1.50	4.50
Glucose	**44.12**	**H**	**97.00**	65.00	99.00
HDL-Cholesterol	-10.00		50.00	34.00	74.00
Hematocrit	-13.57		41.10	36.00	50.00
Hemoglobin	-16.67		14.00	12.50	17.00
LDL	**76.47**	**H**	**148.00**	62.00	130.00
Lymphocytes	**-30.62**	**L**	**20.20**	14.00	46.00
MCH	19.87		31.89	27.00	34.00
MCHC	1.58		34.06	32.00	36.00
MCV	**25.68**	**H**	**93.62**	80.00	98.00
Monocytes	8.89		9.30	4.00	13.00
Neutrophils	**29.41**	**H**	**67.00**	40.00	74.00
Potassium	-8.82		4.20	3.50	5.20
Protein, Total	-10.00		7.00	6.00	8.50
R.B.C.	**-30.67**	**L**	**4.39**	4.10	5.60
sGOT	-1.43		22.00	5.00	40.00
sGPT	-2.00		29.00	5.00	55.00
Sodium	-10.00		138.00	134.00	144.00
Triglycerides	1.32		107.00	10.00	199.00
W.B.C.	**-26.92**	**L**	**5.50**	4.00	10.50
Total Status Deviation	**21.02**				
Total Status Skew	**-0.49**				

Basic Status Alphabetic - Urine Organic Acids on 5/19/2015

Franklin Cook — **Foundational Wellness Profile Date: 5/19/2015**

Male / Age: 71 — Anna Salanti (2718)

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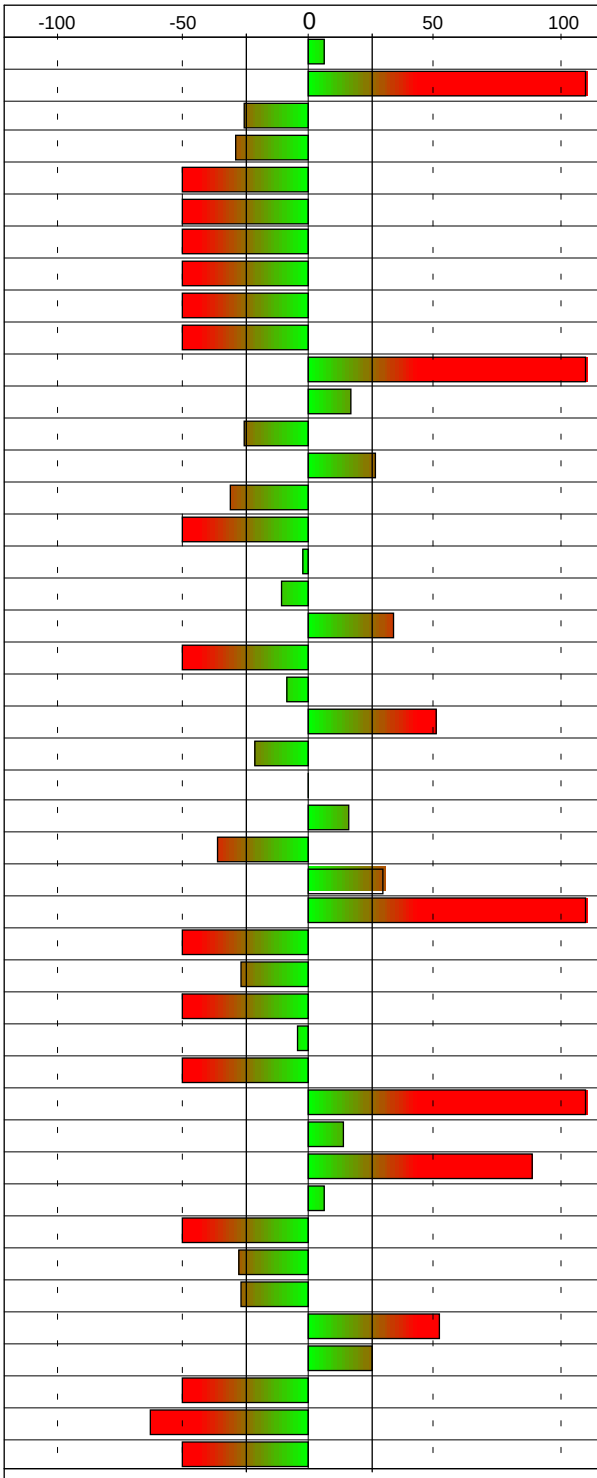


	% Status		Result	Low	High
2-Methylhippurate	5.95		0.05	0.00	0.08
5-Hydroxyindoleacetate	**2021.43**	**H**	**74.60**	2.10	5.60
8-Hydroxy-2-deoxyguan	**-25.47**	**L**	**1.30**	0.00	5.30
Adipate	**-29.03**	**L**	**1.30**	0.00	6.20
a-Hydroxybutyrate	**-50.00**	**L**	**0.00**	0.00	0.30
a-Keto-b-methylvalerate	**-50.00**	**L**	**0.00**	0.00	0.38
a-Ketoglutarate	**-50.00**	**L**	**0.00**	0.00	19.00
a-Ketoisocaproate	**-50.00**	**L**	**0.00**	0.00	0.34
a-Ketoisovalerate	**-50.00**	**L**	**0.00**	0.00	0.25
Benzoate	**-50.00**	**L**	**0.00**	0.00	0.60
b-Hydroxybutyrate	**116.67**	**H**	**3.50**	0.00	2.10
b-Hydroxyisovalerate	17.11		5.10	0.00	7.60
cis-Aconitate	**-25.76**	**L**	**26.00**	18.00	51.00
Citrate	**26.33**	**H**	**472.00**	56.00	601.00
D-Arabinitol	**-30.56**	**L**	**7.00**	0.00	36.00
DHPP	**-50.00**	**L**	**0.00**	0.00	0.05
D-Lactate	-2.63		0.90	0.00	1.90
Ethylmalonate	-11.11		1.40	0.00	3.60
Formiminoglutamic Acid	**33.33**	**H**	**1.00**	0.00	1.20
Fumarate	**-50.00**	**L**	**0.00**	0.00	0.59
Glucarate	-8.73		2.60	0.00	6.30
Hippurate	**50.18**	**H**	**549.00**	0.00	548.00
Homovanillate	-21.05		3.00	1.90	5.70
Hydroxymethylglutarate	0.00		1.80	0.00	3.60
Indican	15.63		42.00	0.00	64.00
Isocitrate	**-36.44**	**L**	**47.00**	39.00	98.00
Kynurenate	**30.00**	**H**	**0.80**	0.00	1.00
Lactate	**130.00**	**H**	**21.40**	1.60	12.60
Malate	**-50.00**	**L**	**0.00**	0.00	1.40
Methylmalonate	**-26.47**	**L**	**0.40**	0.00	1.70
Orotate	**-50.00**	**L**	**0.00**	0.00	0.69
Phenylacetate	-4.55		0.05	0.00	0.11
Phenylpropionate	**-50.00**	**L**	**0.00**	0.00	0.06
p-Hydroxybenzoate	**1259.09**	**H**	**14.40**	0.00	1.10
P-Hydroxyphenylacetate	13.16		12.00	0.00	19.00
p-Hydroxyphenyllactate	**88.46**	**H**	**0.54**	0.00	0.39
Pyroglutamate	5.93		33.00	0.00	59.00
Pyruvate	**-50.00**	**L**	**0.00**	0.00	3.90
Quinolinate	**-27.50**	**L**	**0.90**	0.00	4.00
Suberate	**-26.19**	**L**	**0.50**	0.00	2.10
Succinate	**51.72**	**H**	**11.80**	0.00	11.60
Sulfate	24.80		1997.00	958.00	2347.00
Tricarballylate	**-50.00**	**L**	**0.00**	0.00	0.73
Vanilmandelate	**-63.04**	**L**	**1.30**	1.60	3.90
Xanthurenate	**-50.00**	**L**	**0.00**	0.00	0.34
Total Status Deviation	**105.26**				
Total Status Skew	**58.88**				

Nutritional Support

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

- ☐ **1-5-HTP**
  3x daily 100 mg
- ☐ **1-Chromium**
  2x daily 200 mcg (200 mcg)
- ☐ **1-Magnesium**
  2x daily 360 mg (After meals)
- ☐ **1-Oral Electrolyte - Balanced Formula**
  2x daily
- ☐ **1-Pyridoxal-5-Phosphate**
  2x daily 50 mg
- ☐ **2-Arginine**
  2x daily 750 mg (Contraindicated for Herpes sufferers)
- ☐ **2-Betaine HCL**
  2 tablets at mealtime
- ☐ **2-Glycine**
  2x daily 1000 mg
- ☐ **H - Cat's Claw (Una de gato)**
  1 - 3 times daily
- ☐ **H - Garlic**
  1 - 3 times daily
- ☐ **H - Ginseng (Panax)**
  1 - 3 times daily

Food Recommendations

The following foods may help to balance or strengthen your biochemistry.

Artichoke	Bok Choy Cabbage	Broccoli	Eggs
Green Beans	Guava	Honeydew Melon	Pumpkin
Red Peppers	Strawberries	Wild Rice	

Foods to AVOID

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

Coffee	Green Tea	Hydrogenated Fats	Turkey

Results Missing From Test

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

GGT Iron, Total

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
Neurotransmitters	432.60%	387.97%
Intestinal Dysbiosis	172.32%	130.60%
Carbohydrate Metabolism	86.67%	36.67%
CAC Cycle Ratios	68.17%	63.37%
Nitrogen	64.34%	27.09%
Gluconeogen	54.98%	-21.65%
BCAA Catabolism	50.00%	-50.00%
Biochemical Ratios	43.33%	29.05%
Urea Cycle Metabolites	41.96%	-22.61%
CNS Metabolism	41.05%	1.17%
B-Complex Markers	39.56%	-25.15%
Ammonia/Energy	39.26%	-18.21%
Immune Metabolites	37.49%	-29.11%
Energy Production	36.28%	-16.77%
Connective Tissue	35.48%	13.58%
Muscle Metabolites	34.48%	14.83%
Magnesium Dependents	32.89%	17.81%
Essential Amino Acid	32.84%	2.24%
Detoxification Markers	30.96%	-25.37%
Inflammatory Process	30.23%	2.56%
Neuroendocrine Metab	30.20%	-4.87%
Kidney Function	30.01%	9.74%
Carbohydrate Metabolism	29.55%	25.55%
Athletic Potential	28.58%	0.74%
Hepatic Metabolism	28.26%	-2.04%
Lipid	25.91%	20.91%
Fat Metabolism	25.44%	5.17%

Lab Reported out-of-range Values

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

5-Hydroxyindoleacetate (2021.43%)

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

p-Hydroxybenzoate (1259.09%)

Elevated levels may be indicative of exposure to paraben's found in many cosmetics and to a lesser degree of overgrowth of intestinal bacterial or protozoa. This organic acid when high may be indicative of a tyrosine deficiency. A comprehensive amino acid test may be helpful.

CA Cycle Phase 1 (131.54%)

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.

Lactate (130.00%)

This metabolic precursor to the citric acid cycle, high lactate (lactic acid) may indicate a block in the production of energy, a Coenzyme Q10, biotin, thiamine or lipoic acid deficiency, an on-going infectious state, use of some recreational and/or pharmaceutical drugs, alcohol over consumption, poor blood sugar control (especially with diabetics), and a number of inborn errors of metabolism.

b-Hydroxybutyrate (116.67%)

An increase in the level of this organic acid may be indicative of poor carbohydrate metabolism, poor glucose utilization, or excessive oxidation of free fatty acids. Another possibility is a defect in cytochrome oxidase enzymes.

B.U.N./Creatinine Ratio (101.43%)

This ratio is a good indicator of kidney and liver function. A high reading in this calculation is normally indicative of too much BUN being formed. Excessive protein intake, kidney damage, certain drugs, low fluid intake, intestinal bleeding, exercise, or heart failure can cause increases.

Drugs which may have an adverse affect:
Sildenafil, Tadalafil, Vardenafil

p-Hydroxyphenyllactate (88.46%)

High levels of this organic acid are indicative of an ongoing pro-oxidative response. Increased tissue growth, oxidative challenges due to toxicity, inborn errors of metabolism and low levels of vitamin C may be reasons for high results.

Tryptophan (83.33%)

Tryptophan metabolism requires B6, folic acid, and magnesium. Also, niacin and glutamine are important requirements for normal metabolism. Niacin can be made from tryptophan. A high result may be due to improper metabolism of tryptophan or excessive supplementation. Salicylates may cause an elevated results as will a B-6 deficiency.

Foods which may have an adverse affect:
Turkey

LDL (76.47%)

LDL is the cholesterol rich remnants of the lipid transport vehicle VLDL (very-low density lipoproteins). There have been many studies showing correlations between high levels of LDL and arterial artherosclerosis. Due to the expense of direct LDL measurement, a calculation known as the Friedewald formula is used (Total Cholesterol - HDL Cholesterol - Triglycerides/5). When Triglyceride levels are greater than 400, this method is not accurate. Increased levels are seen in high cholesterol diets, nephrotic syndromes, multiple myeloma, hepatic obstruction or disease, anorexia nervosa, diabetes, chronic renal failure, and premature coronary heart disease.

Drugs which may have an adverse affect:
Clofibrate

Aspartic Acid (-67.65%)

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.

Arginine (-64.06%)

Arginine, an essential amino acid in childhood (it can be synthesized by adults) has been used to improve cardiovascular health, immune function (not herpes virus), and protein metabolism throughout the body. A low result may be due to poor diet, especially poor quality protein sources. A deficiency in arginine may also lead to a higher risk of cardiovascular disease. Insufficiency may also be associated with fatigue, muscle weakness, poor wound healing and decreased libido.

Vanilmandelate (-63.04%)

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

Threonine (-57.14%)

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.

Creatinine (-55.88%)

Creatinine is the waste product of muscle metabolism. Its level is a reflection of the body's muscle mass. Low levels are sometimes seen in kidney damage, protein starvation, liver disease, or pregnancy

Drugs which may have an adverse affect:
Ibuprofen, Marijuana, Viomycin

Succinate (51.72%)

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

Alanine (-50.73%)

Alanine is considered a non-essential amino acid which is derived from the conversion of the carbohydrate pyruvate and the breakdown of DNA and/or carnosine and anserine. Depressed levels may be found in individuals with low branched chain amino acids (BCAA). May be indicative of hypoglycemia. More often than not, low results of this amino acid is due to poor dietary habits or protein malnutrition.

Hippurate (50.18%)

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

3-Methylhistidine (50.00%)

This may be indicative of an abnormal rate of catabolism of muscle protein or an abnormal rate of turnover of muscle tissue. This may be a degenerative condition or due to strenuous physical activity. Also, inadequate levels of folate and B-12 may be the cause.

Drugs which may have an adverse affect:
Cortisol

a-Aminoadipic 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-ß-methylvalerate.

a-Ketoglutarate (-50.00%)

Low levels of this organic acid may be indicative of poor amino acid metabolism, decreased fatty acid synthesis, an increase of palmitic acid in plasma and possibly in red blood cell membranes. Elevated levels of serum triglycerides would help to verify the fatty acid synthesis problem.

Drugs which may have an adverse affect:
Lithium Carbonate

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.

Asparagine (-50.00%)
Asparagine is a non-essential amino acid synthesized from aspartic acid and ATP. A low result may be indicative of a functional magnesium deficiency.

Benzoate (-50.00%)
A low reading in today's enviromentally toxic world may indicate a poor phase I detoxification capability.

DHPP (-50.00%)
No known health issues are related to low levels of DHPP.

Fumarate (-50.00%)
Indicative of poor functioning or overstress on the citric acid cycle, a low reading of this organic acid may be suggestive of low levels of tyrosine and phenylalanine.

Malate (-50.00%)
Low levels of this organic acid may be due to poor protein nutrition or metabolism as well as a strain on the citric acid cycle.

Orotate (-50.00%)
No known health issues are related to low levels of orotate.

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.

Tricarballylate (-50.00%)
No known health issues are related to low levels of tricarballylate.

Xanthurenate (-50.00%)
No known health issues are related to low levels of xanthurenate.

Drugs which may have an adverse affect:
Anabolic Steroids

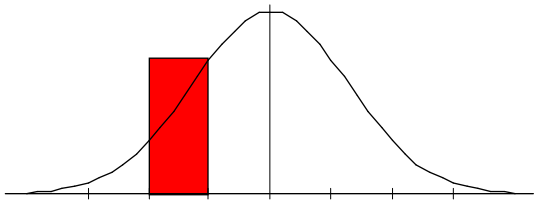
Additional Tests
The following additional lab tests may help in diagnosis.

Consider running Urine Organic Acid Test
Rationale: % Status of b-Alanine is > 25%

Ammonia/Energy

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

PSD: 39.26
PSS: -18.21

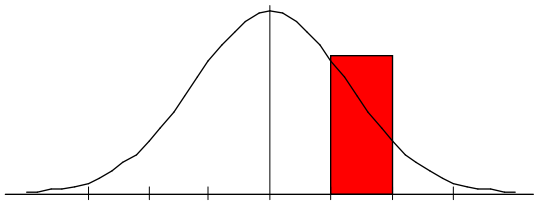


Ammonia influences a cell's ability to create energy. This panel shows your body's ability to rid excess ammonia buildup and maintain a healthy energy cycle. A profile like this may show you're not eating enough protein, you're unable to digest properly, or you're eating a poor quality of proteins.

CNS Metabolism

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

PSD: 41.05
PSS: 1.17

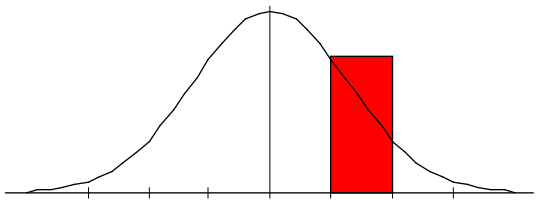


Amino acids are the basic building blocks of all the cells in our body. Amino acid metabolism is important for proper functioning of the nervous system. This profile may indicate an overexcited central nervous system. Symptoms include hyperactivity or the inability to relax.

Connective Tissue

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

PSD: 35.48
PSS: 13.58

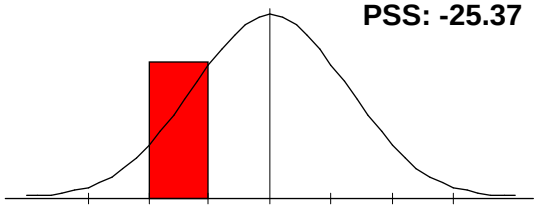


This panel shows whether there's an adequate supply and metabolism of amino acids necessary to produce healthy connective tissue and collagen. Necessary for healthy bone, joints, hair, skin, and cartilage. This profile may indicate missing enzymes and co-factors necessary in the production of healthy 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[L], Taurine, Glutamine, Glycine[L], Aspartic Acid[L].

PSD: 30.96
PSS: -25.37

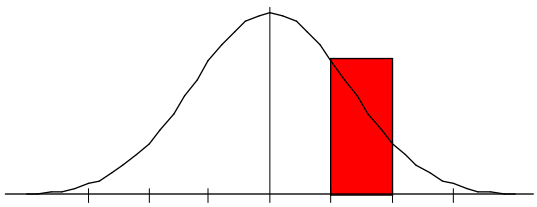


This panel reviews amino acids critical for proper detoxification. This includes detoxing medications, environmental toxins, and natural metabolic toxins. This profile may be indiciative of an inability to properly detoxify. Personalized supplementation is suggested.

Essential Amino Acid

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

PSD: 32.84
PSS: 2.24



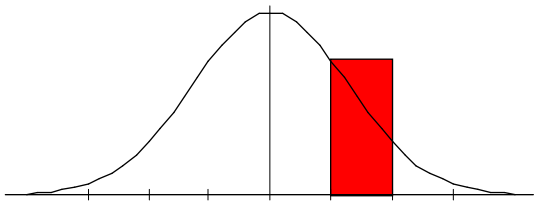
This panel reviews the essential amino acids the body can't produce and must get from the diet. These amino acids are necessary for all body functions. This profile may indicate excessive protein intake or missing nutrients necessary for proper amino acid funtion. Review your diet and your Supplement List Explaniation.

Fat Metabolism

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

PSD: 25.44
PSS: 5.17

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 you're likely missing important nutrients and co-factors necessary for proper amino acid function. This may be caused by a low dietary fat intake or excessive intake of protein. Consider reviewing your diet.

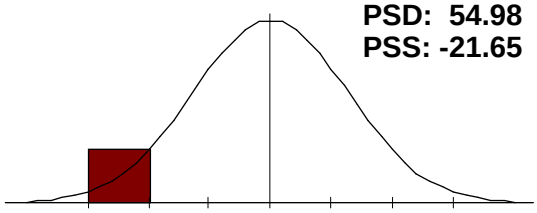


Gluconeogen

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

PSD: 54.98
PSS: -21.65

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.

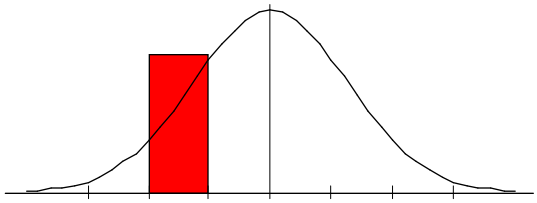


Hepatic Metabolism

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

PSD: 28.26
PSS: -2.04

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.

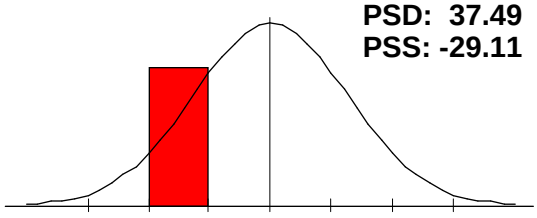


Immune Metabolites

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

PSD: 37.49
PSS: -29.11

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 - makiing it difficult for you to fight off infections. This may be caused by a low dietary protein intake.

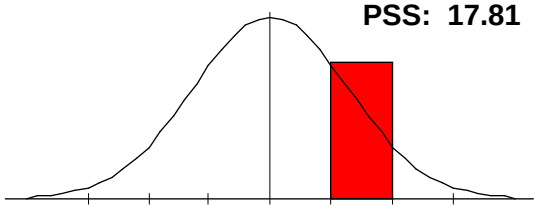


Magnesium Dependents

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

PSD: 32.89
PSS: 17.81

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.

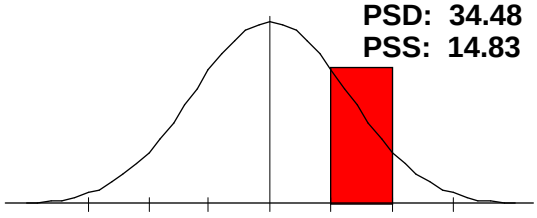


Muscle Metabolites

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

PSD: 34.48
PSS: 14.83

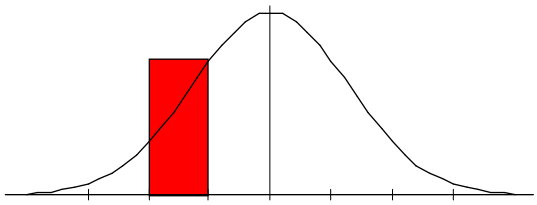


Neuroendocrine Metab

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.

PSD: 30.20
PSS: -4.87

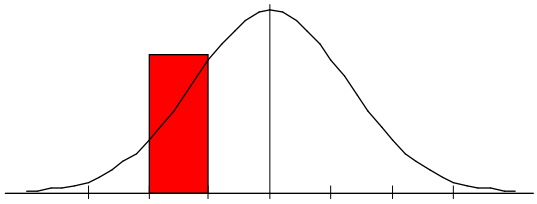


Urea Cycle Metabolites

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

PSD: 41.96
PSS: -22.61

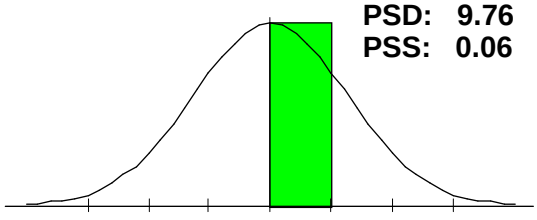


Adrenal Function

Cholesterol, Eosinophils, Eosinophil Count, Potassium, Sodium, Chloride.

This panel assesses your production of adrenaline. Adrenaline affects your daily function, such as your ability to handle stress. This profile shows a percent imbalance below 25%, so no abnormalities were found.

PSD: 9.76
PSS: 0.06

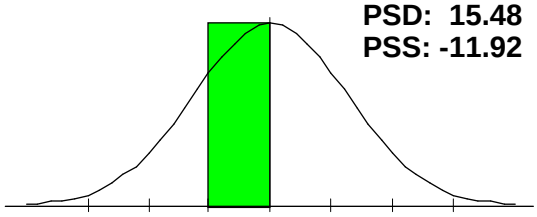


Allergy

Eosinophils, Globulin, Lymphocytes[L], Monocytes, W.B.C.[L].

This panel assesses your response to allergens from common sources such as foods, pets or pollens. This profile shows a percent imbalance below 25%, so no abnormalities were found.

PSD: 15.48
PSS: -11.92

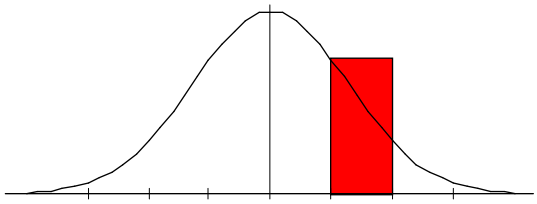


Athletic Potential

B.U.N./Creatinine Ratio[H], Cholesterol, CO2, Creatinine[L], Potassium, Protein, Total, Sodium, HDL-Cholesterol.

PSD: 28.58
PSS: 0.74

This panel assesses your athletic potential and your ability to recover from injury. Maintaining a normal range helps optimize performance. Athletes require more nutrients because they deplete their supplies faster. This profile shows you may be at high risk for heart attacks, injury and general poor performance. Highly consider a complete physical before starting any exercise routine.

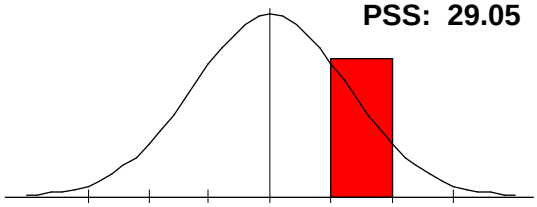


Biochemical Ratios

A/G Ratio, B.U.N./Creatinine Ratio[H], Sodium/Potassium Ratio.

PSD: 43.33
PSS: 29.05

Ratios indicate your balance of chemistry. It's the ratios between your test results - not just how much you have of something - that indicate balance. This profile may indicate imbalances in you chemistry. This panel provides a good tracking mechanism for showing improvements in your biochemical status. Review your Supplement List Explanation.

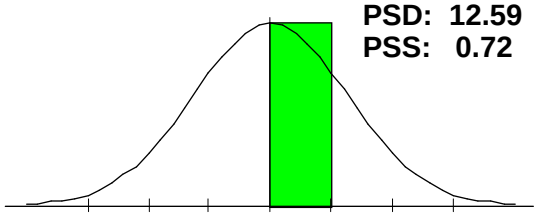


Bone/Joint

Albumin, Alkaline Phosphatase, Calcium, Neutrophils[H], Protein, Total.

PSD: 12.59
PSS: 0.72

This panel helps assess bone and joint health. These markers show your body's ability to create healthy bones and joints. This profile shows a percent imbalance below 25%, so no abnormalities were found.

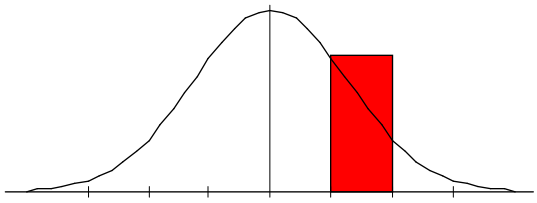


Carbohydrate Metabolism

Glucose[H], HDL-Cholesterol, LDL[H], Cholesterol, Triglycerides.

PSD: 29.55
PSS: 25.55

This panel is helpful in assessing Type II Diabetic Risk and Hypoglycemic Risk. Maintaining a normal range may reduce your risk of blood sugar metabolism problems. This profile indicates poor carbohydrate metabolism, thus you are at high risk for Type II Diabetes, Insulin Resistance, and Metabolic Syndrome (Syndrome X). An elevated profile indicates the need for reviewing dietary and exercise habits and making the appropriate lifestyle changes. Additionally, a high profile suggests the need to assess liver function as this organ plays a pivotal role in carbohydrate metabolism.

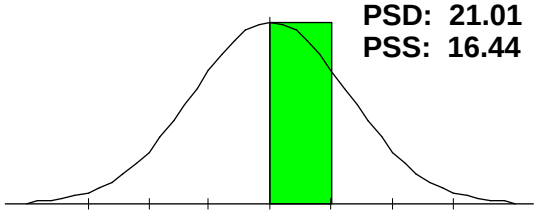


Cardiac Risk

Cholesterol, sGOT, Triglycerides, HDL-Cholesterol, LDL[H].

PSD: 21.01
PSS: 16.44

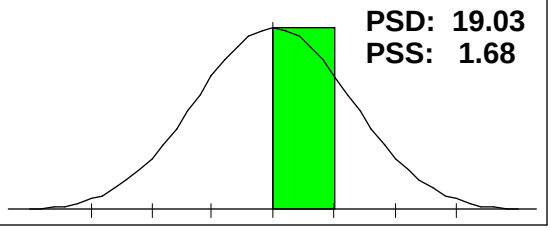
This panel is helpful in assessing cardiovascular disease risk. Maintaining a normal range may reduce your risk of cardiovascular disease (CVD). This profile shows a percent imbalance below 25%, so no abnormalities were found.



Cellular Production

Alkaline Phosphatase, Anion Gap, Neutrophils[H], W.B.C.[L].

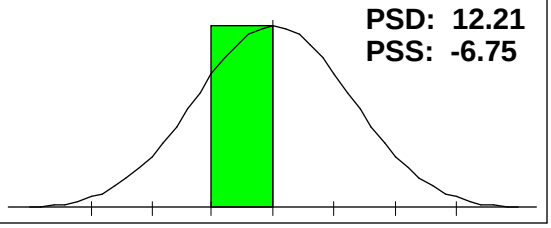
This panel may be helpful in determining your body's ability to properly produce healthy cells. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Electrolyte Balance

Calcium, Chloride, CO2, Potassium, Sodium.

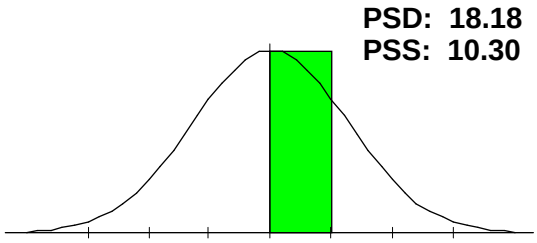
This panel represents the electrolyte balance in blood. Balance is critical in achieving optimal health. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Gastrointest. Function

Anion Gap, Chloride, Cholesterol, CO2, Monocytes, Potassium, Sodium, Triglycerides, LDL[H].

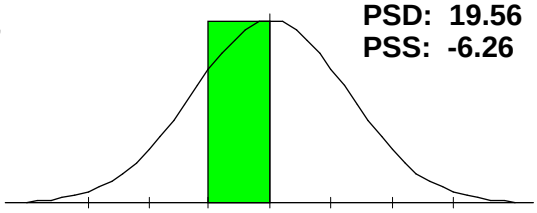
This panel helps assess gastrointestinal health. Keeping the elements listed in a normal range may improve digestion and the metabolism of proteins, fats and carbohydrates. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Hydration

Albumin, Sodium, Potassium, Chloride, Calcium, CO2, Creatinine[L], B.U.N.[H].

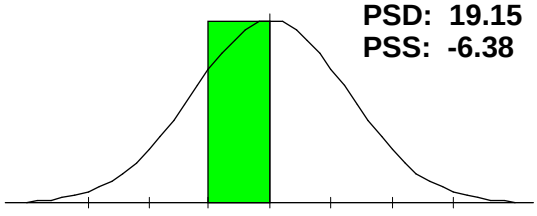
Hydration is a key factor in being and staying healthy. Imbalances in this panel can point out whether a person is dehydrated or over hydrated.



Immune Response

Basophils[L], Eosinophils, Lymphocytes[L], Monocytes, Neutrophils[H], Globulin.

This panel helps assess immune system health. It shows the percentage of specific white blood cells needed for proper immune response. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Immune Response Count

Basophil Count[L], Eosinophil Count, Lymphocyte Count[L], Monocyte Count, Neutrophil Count.

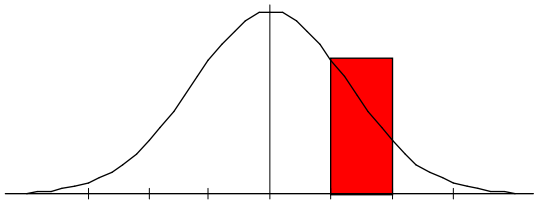
This panel helps assess immune system health. It shows how many specific white blood cells your body has for proper immune response. This profile shows a percent imbalance below 25%, so no abnormalities were found.

Inflammatory Process

Eosinophils, LDL[H], Monocytes, Lymphocytes[L], Neutrophils[H], W.B.C.[L], Basophils[L].

PSD: 30.23
PSS: 2.56

This panel helps assess any inflammatory processes that may be occuring in the body. This profile may show presence of an ongoing inflammatory process. Consider dietary changes such as avoiding saturated and trans fats. And review your Supplement Explanation List. We recommend the LEAP/MRT test to identify the foods and preservatives which may be increasing your inflammation.

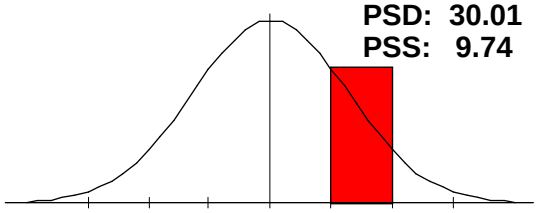


Kidney Function

Albumin, B.U.N.[H], B.U.N./Creatinine Ratio[H], Chloride, CO2, Creatinine[L], Glucose[H], Potassium, Protein, Total, Sodium.

PSD: 30.01
PSS: 9.74

This panel helps assess kidney function. It is important to keep the elements of this subset in balance to help the body eliminate waste material. This profile suggests a careful review of kidney function. This may include a urinalysis to ascertain renal health.

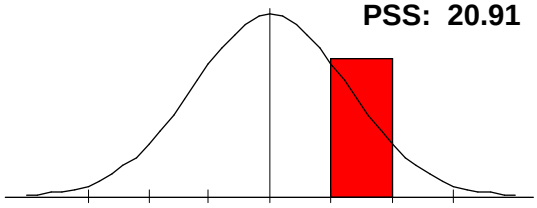


Lipid

Cholesterol, Triglycerides, HDL-Cholesterol, LDL[H].

PSD: 25.91
PSS: 20.91

Lipid assessment is important in helping achieve optimal wellness as well as reducing cardiovascular disease risk. The profile suggests you may be at higher risk for coronary heart disease than the general population. Review your diet and avoid trans and saturated fats. Plus refer to your Supplement List Explanation.

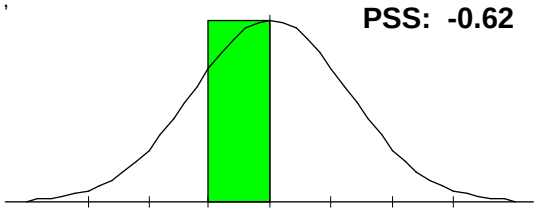


Liver Function

Albumin, Alkaline Phosphatase, Bilirubin, Total, Protein, Total, sGOT, sGPT.

PSD: 6.45
PSS: -0.62

Assessing liver function helps determine your body's ability to detoxify environmental toxins, stress hormones, drugs and other chemical toxins. It also shows your ability to process amino acids and other important biological processes. This profile shows a percent imbalance below 25%, so no abnormalities were found.

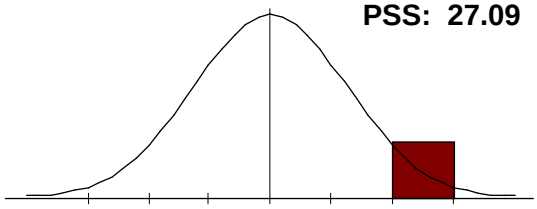


Nitrogen

B.U.N.[H], B.U.N./Creatinine Ratio[H], Creatinine[L].

PSD: 64.34
PSS: 27.09

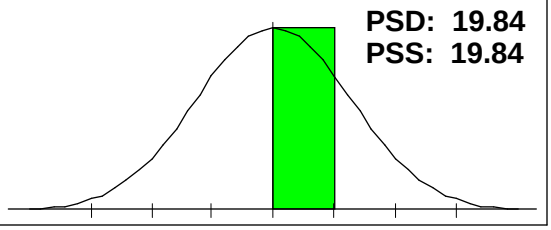
Nitrogen is a major component of protein. This panel assesses if there's adequate protein in the diet and if the body metabolizes (uses) proteins properly. This profile suggests a review of the kidney function. The high reading may be caused by excessive protein intake or high gut bacteria. Consider running a cardiovascular risk assessment.



Oxidative Stress

Anion Gap, Bilirubin, Total, Chloride, Cholesterol, Glucose[H].

Oxidation is like the rusting of cells. Reducing oxidation is critical for healthy cell function and to slow the aging process. This profile shows a percent imbalance below 25%, so no abnormalities were found.

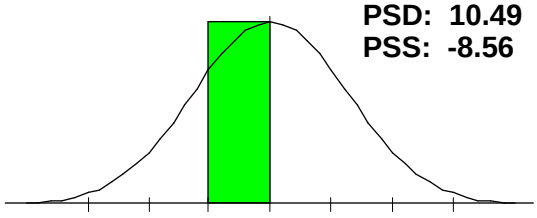


PSD: 19.84
PSS: 19.84

Protein

A/G Ratio, Albumin, Globulin, Protein, Total.

Proteins are the basic building blocks of all cells including: hormones, muscle, neurotransmitters, immune systems responses and more. Assessing their competency is crucial in achieving optimal wellness. This profile shows a percent imbalance below 25%, so no abnormalities were found.

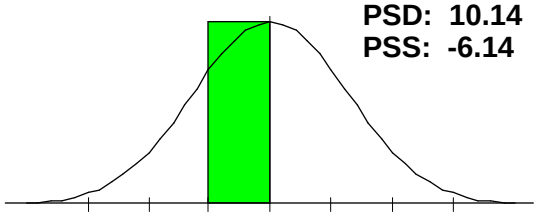


PSD: 10.49
PSS: -8.56

Pulmonary Function

Anion Gap, Calcium, CO2, Potassium, sGOT, Sodium.

This panel helps assess lung and respiratory function. This profile shows a percent imbalance below 25%, so no abnormalities were found.

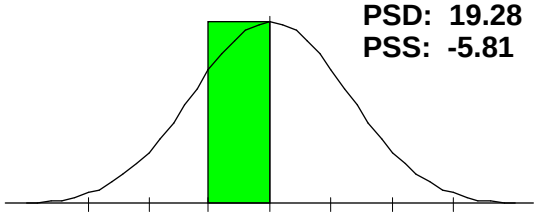


PSD: 10.14
PSS: -6.14

Red Blood Cell Health

Hematocrit, Hemoglobin, MCH, MCHC, MCV[H], R.B.C.[L], W.B.C.[L].

This panel assesses the production of red blood cells and their function. This profile shows a percent imbalance below 25%, so no abnormalities were found.

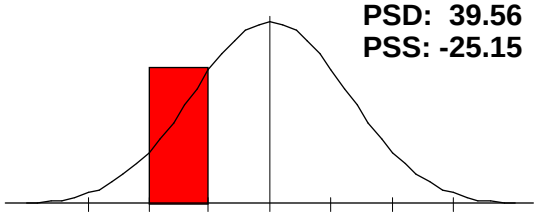


PSD: 19.28
PSS: -5.81

B-Complex Markers

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

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



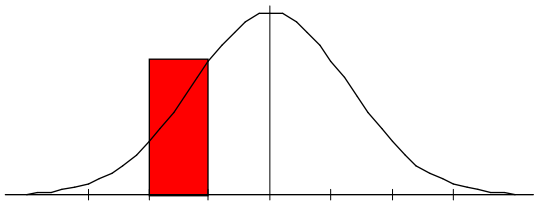
PSD: 39.56
PSS: -25.15

BCAA Catabolism

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

PSD: 50.00
PSS: -50.00

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.

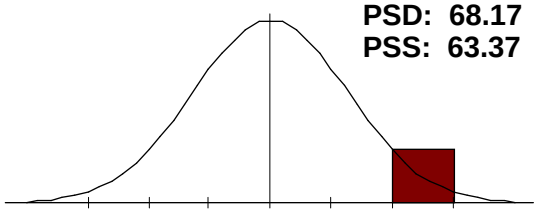


CAC Cycle Ratios

CA Cycle Phase 1[H], CA Cycle Phase 2.

PSD: 68.17
PSS: 63.37

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.

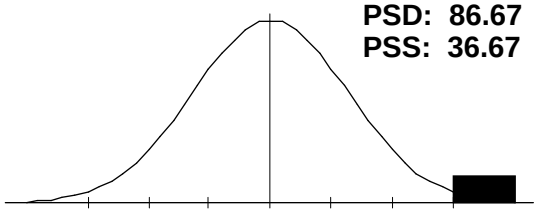


Carbohydrate Metabolism

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

PSD: 86.67
PSS: 36.67

This panel assesses your body's ability to metabolize dietary carbohydrates. This profile suggests impaired carbohydrate metabolism. Symptoms include: brain function disorders, fatigue, weight gain, and chronic diseases. Review your Supplement List Explanation.

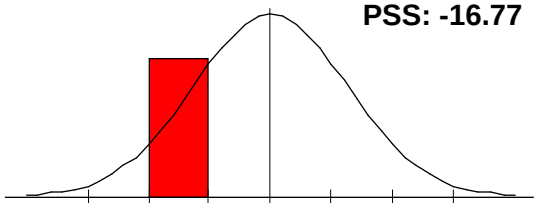


Energy Production

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

PSD: 36.28
PSS: -16.77

This panel reviews cellular energy producing cycles to maintain health and weight. This profile may indicate an amino acid deficiency. Low readings are typically desirable, but if the CAC Cycle Ratios are abnormal, consider adding a broad spectrum amino acid supplement.

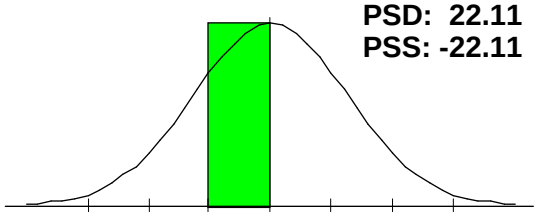


Fatty Acid Metabolism

Adipate[L], Suberate[L], Ethylmalonate.

PSD: 22.11
PSS: -22.11

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.

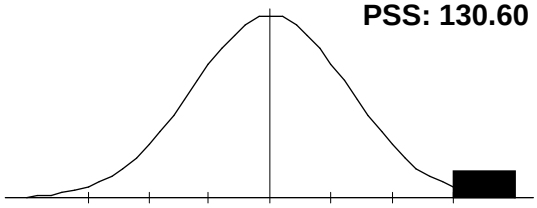


Intestinal Dysbiosis

p-Hydroxyphenyllactate[H], Phenylacetate, Phenylpropionate[L], Tricarballylate[L], DHPP[L], Indican, p-Hydroxybenzoate[H], 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 Clostridum panel. Consider running a stool analysis to confirm.

PSD: 172.32
PSS: 130.60

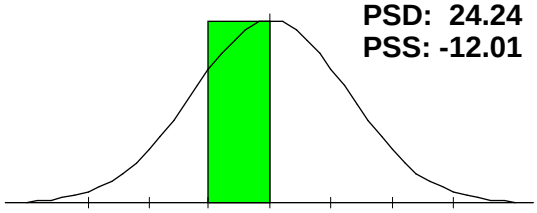


Liver Detox Indicators

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

This panel assesses how well your liver removes toxins from your system. This profile shows a percent imbalance below 25%, so no abnormalities were found.

PSD: 24.24
PSS: -12.01

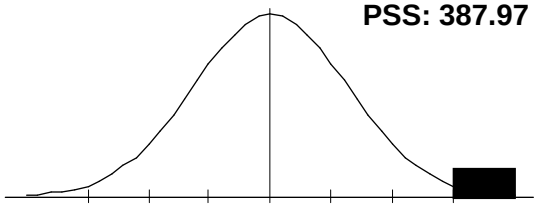


Neurotransmitters

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

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.

PSD: 432.60
PSS: 387.97



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.

ACTH
Albuterol
Amphotericin B(3)
Arginine(2)
Caffeine
Cephaloridine(3)
Chlorpropamide(2)
Clonidine(3)
Colchicine(4)
Cortisone(2)
Diazepam(2)
Echinomycin
Ethionamide
Furazolidone(2)
Gentamicin(2)
Hydralazine
Imipramine(4)
Ketoprofen
Lithium Carbonate(6)
Melphalen(2)
Methimazole(2)
Miconazole
Neomycin(4)
Ofloxacin(3)
Penicillamine(3)
Phenylbutazone(4)
Polythiazide(3)
Procainamide(3)
Propylthiouracil(2)
Rifampin(3)
Streptokinase
Sulfasalazine(2)
Tetracycline(3)
Triameterene(3)
Vardenafil(2)

Acetaminophen(4)
Allopurinol(3)
Ampicillin(3)
Aspirin(6)
Carbamazepine(4)
Chloral hydrate
Chlorthalidone(3)
Clopamide
Colistin(2)
Cycloserine(3)
Diazoxide(2)
Erythromycin
Fenoprofen
Furosemide(3)
Griseofulvin(2)
Hydrocortisone(2)
Indomethacin(4)
Levodopa(3)
Lovastatin(2)
Mercaptopurine(3)
Methotrexate(5)
Mitoxantrone(2)
Nifedipine(2)
Paraldehyde
Penicillin(2)
Phenytoin(4)
Pravastatin
Procarbazine(2)
Protriptyline(2)
Salicylates
Streptomycin(3)
Sulfisoxazole(2)
Thiothixene(3)
Trimethadione(3)
Vasopressin

Acetazolamide(3)
Amantadine(2)
Anabolic Steroids
Azathioprine(3)
Carbenoxolone
Chlordiazepoxide
Clindamycin(2)
Clozapine
Corticosteroids(3)
Desipramine(2)
Diclofenac
Estrogens
Fluorouracil(2)
G-CSF(2)
Guanethidine
Hydroxyurea(4)
Isoproterenol
Levonorgestrel
MAO Inhibitors(3)
Methazolamide(2)
Methyldopa(5)
Morphine(2)
Nitrofurantoin(4)
Paramethadione(3)
Phenelzine(2)
Piroxicam(3)
Prednisone(4)
Promethazine
Prozac
Sildenafil(2)
Sulfamethizole(2)
Tadalafil(2)
Tolazamide(2)
Valproic Acid(2)
Viomycin

Acyclovir(3)
Amitriptyline(3)
Antacids
Busulfan(3)
Carbutamide(2)
Chlorpromazine(3)
Clofibrate(2)
Codeine
Cortisol
Dextran(2)
Diphenylhydantoin
Ethacrynic Acid(3)
Fluphenazine(2)
Gemfibrozil
Haloperidol(3)
Ibuprofen(5)
Kanamycin(2)
Lincomycin
Marijuana
Methicillin(3)
Methylthiouracil(2)
Naproxen
Novobiocin(2)
Paromomycin
Phenobarbital(3)
Plicamycin(2)
Probenecid(3)
Propranolol
Reserpine(3)
Spectinomycin
Sulfamethoxazole(2)
Tamoxifen
Tranylcypromine
Vancomycin(2)

Franklin Cook **Foundational Wellness Profile Date: 5/19/2015**

Male / Age: 71 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

Rationale

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	Normal	Increased
		5-Hydroxyindoleacetate

1-Chromium 2x daily 200 mcg 200 mcg

Elevated beta-hydrodroxybutyrate may be indicative of an inability to properly process carbohydrates leading to elevated ketone bodies in the urine. Chromium may help to restore proper carbohydrate metabolism.

Decreased	Normal	Increased
		b-Hydroxybutyrate

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-Oral Electrolyte - Balanced Formula 2x daily

The main electrolytes in the human body are sodium, potassium, phosphorus, calcium, chloride, magnesium and bicarbonate. During illness, the equilibrium present in healthy individuals, is disturbed. A well balanced formula is helpful in restoring a state of equilibrium. A sports formula will have greater levels of bicarbonate yet still keeping the proportion of the other salts in line.

Decreased	Normal	Increased
	Potassium CO2 Sodium	

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

2-Arginine 2x daily 750 mg Contraindicated for Herpes sufferers

Contraindicated in Herpes

Semi-essential amino acid for protein and creatine synthesis and the urea cycle. Unique substrate for nitric oxide, a neurotransmitter. Enhances insulin secretion, glucagon, somotostatin, growth hormone, prolactin, adrenal catecholamines and many other hormones. Stimulates wound healing.

Decreased	Normal	Increased
Arginine	Lysine Ornithine	

2-Betaine HCL 2 tablets at mealtime

When this pattern of imbalances show up, it may be due to a BCl/betaine deficiency and suggests muscle/collagen catabolism and inadequate synthesis due to inadequate quality and/or quantity of protein.

Decreased	Normal	Increased
Proline	Hydroxyproline	3-Methylhistidine

2-Glycine 2x daily 1000 mg

Glycine is an important amino acid and is necessary in phase II detoxification as it is a component of hippurate through its binding with benzoate.

Decreased	Normal	Increased
Benzoate		Hippurate

H - Cat's Claw (Una de gato) 1 - 3 times daily

The herb Cat's claw has been reported to be effective in stimulating the action of white blood cells as well as being helpful in the treatment of inflammatory diseases (arthritis and GI inflammation). As with any herb, caution should be taken with its use. Do not use during pregnancy.

Decreased	Normal	Increased
Lymphocytes W.B.C.		Neutrophils

Franklin Cook **Foundational Wellness Profile Date: 5/19/2015**

Male / Age: 71 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.

H - Garlic 1 - 3 times daily

Garlic's use has been reported to be beneficial in lowering blood lipid (fat) levels. May cause unwanted bodily odors. As with any herb, caution should be taken with its use.

Rationale

Decreased	Normal	Increased
	Cholesterol	LDL

H - Ginseng (Panax) 1 - 3 times daily

Also known as Korean Ginseng (Panax ginseng), this herb has shown benefits to those suffering from fatigue, stress, compromised immune systems and diabetes. As with any herb, caution should be taken with its use. Women who experience breast tenderness should discontinue its use.

Decreased	Normal	Increased
		Glucose

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.

Hypervalinemia (270.3) 100.00% (1 of 1)

Decreased	*Normal*	*Increased*
		39.93 Valine

Increased CVD risk () 100.00% (2 of 2)

Decreased	*Normal*	*Increased*
-64.06 Arginine		**41.67 Homocystine**

A blood chemistry profile that correlates to these readings can put an individual at an increased risk for cardiovascular disease. Careful evaluation by a specialist may be in order.

Potential Intestinal Bacteria () 100.00% (1 of 1)

Decreased	*Normal*	*Increased*
		35.71 b-Alanine

Review history for potential exposure to intestinal bacteria including foreign travel, raw meat ingestion, untreated water intake, etc. Organic acid testing may be helpful.

Urea Cycle Dysfunction () 80.00% (4 of 5)

Decreased	*Normal*	*Increased*
-50.73 Alanine		**41.30 Citrulline**
-67.65 Aspartic Acid		
-50.00 Asparagine		
-12.00 Ornithine		

The urea cycle is important as it helps eliminate excessive ammonia from the body.

Catecholamine Dysfunction () 66.67% (2 of 3)

Decreased	*Normal*	*Increased*
-21.05 Homovanillate		
-63.04 Vanilmandelate		
-50.00 Fumarate		

Collagen Production Imbalance (270.1) 66.67% (2 of 3)

Decreased	*Normal*	*Increased*
-36.25 Proline		18.75 Hydroxyproline
		46.67 Hydroxylysine

Maple Syrup Disease (270.3) 66.67% (2 of 3)

Decreased	*Normal*	*Increased*
		9.52 Isoleucine
		40.91 Leucine
		39.93 Valine

Comparison Progress Report

Franklin Cook **Foundational Wellness Profile Date: 5/19/2015**

Male / Age: 71 Anna Salanti (2718)

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

Status % on:	3/17/2014		5/19/2015		+/- change
Sarcosine	**64.05**	**H**	-2.89		+ 61.16
Asparagine	-9.38		**-50.00**	**L**	**- 40.63**
Threonine	-16.67		**-57.14**	**L**	**- 40.48**
Valine	-1.68		**39.93**	**H**	**- 38.26**
Arginine	**28.13**	**H**	**-64.06**	**L**	**- 35.94**
Tryptophan	**50.00**	**H**	**83.33**	**H**	**- 33.33**
Cystine	10.54		**-42.52**	**L**	**- 31.97**
Citrulline	15.22		**41.30**	**H**	**- 26.09**
Leucine	14.94		**40.91**	**H**	**- 25.97**

Comparison Report

Franklin Cook — **Foundational Wellness Profile Date: 5/19/2015**

Male / Age: 71 — 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:	3/17/2014		5/19/2015	
		1-Methylhistidine	**40.28**	**H**	**-39.31**	**L**
28.38 → **50.00**	-	3-Methylhistidine	**28.38**	**H**	**50.00**	**H**
		a-Aminoadipic Acid	**50.00**	**H**	**50.00**	**H**
3.57 ← 21.43	+	a-Amino-N-Butyric Acid	21.43		3.57	
-50.73 ← **-36.91**	-	Alanine	**-36.91**	**L**	**-50.73**	**L**
27.78 → **36.11**	-	Anserine	**27.78**	**H**	**36.11**	**H**
-64.06 ← **28.13**	-	Arginine	**28.13**	**H**	**-64.06**	**L**
-50.00 ← -9.38	-	Asparagine	-9.38		**-50.00**	**L**
-67.65 ← **-53.92**	-	Aspartic Acid	**-53.92**	**L**	**-67.65**	**L**
		b-Alanine	**32.14**	**H**	**35.71**	**H**
		Carnosine	6.25		12.50	
15.22 → **41.30**	-	Citrulline	15.22		**41.30**	**H**
		Cystathionine	**33.33**	**H**	**33.33**	**H**
-42.52 ← 10.54	-	Cystine	10.54		**-42.52**	**L**
		Ethanolamine	15.59		22.04	
		GABA	**46.67**	**H**	**46.67**	**H**
-30.58 → -16.99	+	Glutamic Acid	**-30.58**	**L**	-16.99	
		Glutamine	-10.06		16.77	
		Glycine	**-42.04**	**L**	**-46.02**	**L**
13.41 ← **29.49**	+	Glycine/Serine Ratio	**29.49**	**H**	13.41	
-11.76 ← 0.00	-	Histidine	0.00		-11.76	
		Homocystine	**41.67**	**H**	**41.67**	**H**
		Hydroxylysine	**46.67**	**H**	**46.67**	**H**
18.75 ← **37.50**	+	Hydroxyproline	**37.50**	**H**	18.75	
		Isoleucine	9.52		9.52	
14.94 → **40.91**	-	Leucine	14.94		**40.91**	**H**
		Lysine	-12.93		-11.21	
		Methionine	14.71		-8.82	
-28.00 → -12.00	+	Ornithine	**-28.00**	**L**	-12.00	
		Phenylalanine	8.62		1.72	
		Phosphoethanolamine	-15.22		17.39	
		Phosphoserine	**46.00**	**H**	**46.00**	**H**
-47.50 → **-36.25**	+	Proline	**-47.50**	**L**	**-36.25**	**L**
-2.89 ← **64.05**	+	Sarcosine	**64.05**	**H**	-2.89	
		Serine	**-43.85**	**L**	**-37.69**	**L**
		Taurine	3.97		-3.97	
-57.14 ← -16.67	-	Threonine	-16.67		**-57.14**	**L**
50.00 → **83.33**	-	Tryptophan	**50.00**	**H**	**83.33**	**H**
-7.14 → 16.67	-	Tyrosine	-7.14		16.67	
-1.68 → **39.93**	-	Valine	-1.68		**39.93**	**H**
		Total Status Deviation	**26.97**		**32.08**	
		Total Status Skew	**9.17**		**4.12**	

Comparison Progress Report

Franklin Cook **Foundational Wellness Profile Date: 5/19/2015**

Male / Age: 71 Anna Salanti (2718)

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

Status % on:	1/20/2011		5/19/2015		+/- change
Anion Gap	**55.00**	**H**	12.00		+ 43.00
Albumin	**42.31**	**H**	3.85		+ 38.46
sGOT	**-31.82**	**L**	-1.43		+ 30.39
B.U.N./Creatinine Ratio	6.14		**101.43**	**H**	**- 95.29**
Creatinine	15.71		**-55.88**	**L**	**- 40.17**
Basophils	0.00		**-35.00**	**L**	**- 35.00**

Comparison Report

Franklin Cook — **Foundational Wellness Profile Date: 5/19/2015**

Male / Age: 71 — 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:	1/20/2011		5/19/2015	
	A/G Ratio	24.03		-21.43	
+	Albumin	**42.31**	**H**	3.85	
	Alkaline Phosphatase	-10.00		-7.78	
+	Anion Gap	**55.00**	**H**	12.00	
-	B.U.N.	**26.19**	**H**	**35.71**	**H**
-	B.U.N./Creatinine Ratio	6.14		**101.43**	**H**
-	Basophils	0.00		**-35.00**	**L**
-	Bilirubin, Total	4.55		13.64	
-	Calcium	2.38		-11.90	
+	Chloride	22.73		13.64	
	Cholesterol	9.17		15.83	
	CO2	-16.67		-16.67	
-	Creatinine	15.71		**-55.88**	**L**
	Eosinophils	7.14		-4.29	
+	Globulin	**-26.67**	**L**	-6.67	
+	Glucose	**52.94**	**H**	**44.12**	**H**
	HDL-Cholesterol	2.50		-10.00	
+	Hematocrit	**25.71**	**H**	-13.57	
+	Hemoglobin	**27.78**	**H**	-16.67	
-	LDL	**52.94**	**H**	**76.47**	**H**
-	Lymphocytes	-18.75		**-30.62**	**L**
-	MCH	3.00		19.87	
	MCHC	8.37		1.58	
-	MCV	2.46		**25.68**	**H**
+	Monocytes	16.67		8.89	
-	Neutrophils	11.76		**29.41**	**H**
	Potassium	8.82		-8.82	
	Protein, Total	-14.00		-10.00	
	R.B.C.	24.00		**-30.67**	**L**
+	sGOT	**-31.82**	**L**	-1.43	
	sGPT	-1.28		-2.00	
+	Sodium	**30.00**	**H**	-10.00	
+	Triglycerides	9.26		1.32	
-	W.B.C.	-17.69		**-26.92**	**L**
	Total Status Deviation	**21.46**		**21.02**	
	Total Status Skew	**6.79**		**-0.49**	

Comparison Progress Report

Franklin Cook **Foundational Wellness Profile Date: 5/19/2015**

Male / Age: 71 Anna Salanti (2718)

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

Status % on:	3/17/2014		5/19/2015		+/- change
Fumarate	**5982.20**	**H**	**-50.00**	**L**	**+5932.20**
a-Keto-b-methylvalerate	**2300.00**	**H**	**-50.00**	**L**	**+2250.00**
Pyruvate	**1293.59**	**H**	**-50.00**	**L**	**+1243.59**
Isocitrate	**1227.97**	**H**	**-36.44**	**L**	**+1191.53**
Hydroxymethylglutarate	**1047.22**	**H**	0.00		+1047.22
b-Hydroxyisovalerate	**550.00**	**H**	17.11		+ 532.89
Tricarballylate	**486.99**	**H**	**-50.00**	**L**	**+ 436.99**
b-Hydroxybutyrate	**459.52**	**H**	**116.67**	**H**	**+ 342.86**
Quinolinate	**255.00**	**H**	**-27.50**	**L**	**+ 227.50**
CA Cycle Phase 2	**172.75**	**H**	-4.81		+ 167.95
cis-Aconitate	**165.15**	**H**	**-25.76**	**L**	**+ 139.39**
Methylmalonate	**91.18**	**H**	**-26.47**	**L**	**+ 64.71**
Pyruvate to Lactate	**93.96**	**H**	**-50.00**	**L**	**+ 43.96**
Citrate	**-60.28**	**L**	**26.33**	**H**	**+ 33.94**
p-Hydroxybenzoate	**31.82**	**H**	**1259.09**	**H**	**-1227.27**
5-Hydroxyindoleacetate	**1558.57**	**H**	**2021.43**	**H**	**- 462.86**
Lactate	**-41.82**	**L**	**130.00**	**H**	**- 88.18**
CA Cycle Phase 1	**-50.00**	**L**	**131.54**	**H**	**- 81.54**
p-Hydroxyphenyllactate	21.79		**88.46**	**H**	**- 66.67**
Hippurate	1.09		**50.18**	**H**	**- 49.09**
Succinate	-6.03		**51.72**	**H**	**- 45.69**
Xanthurenate	5.88		**-50.00**	**L**	**- 44.12**
a-Ketoglutarate	9.47		**-50.00**	**L**	**- 40.53**
Formiminoglutamic Acid	0.00		**33.33**	**H**	**- 33.33**
D-Arabinitol	0.00		**-30.56**	**L**	**- 30.56**

Comparison Report

Franklin Cook — **Foundational Wellness Profile Date: 5/19/2015**

Male / Age: 71 — 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:	3/17/2014		5/19/2015	
+	2-Methylhippurate	**-26.19**	**L**	5.95	
-	5-Hydroxyindoleacetate	**1558.57**	**H**	**2021.43**	**H**
-	8-Hydroxy-2-deoxyguan	17.92		**-25.47**	**L**
-	Adipate	16.13		**-29.03**	**L**
	a-Hydroxybutyrate	**-50.00**	**L**	**-50.00**	**L**
+	a-Keto-b-methylvalerate	**2300.00**	**H**	**-50.00**	**L**
-	a-Ketoglutarate	9.47		**-50.00**	**L**
	a-Ketoisocaproate	**-50.00**	**L**	**-50.00**	**L**
	a-Ketoisovalerate	**50.00**	**H**	**-50.00**	**L**
	Benzoate	**50.00**	**H**	**-50.00**	**L**
+	b-Hydroxybutyrate	**459.52**	**H**	**116.67**	**H**
+	b-Hydroxyisovalerate	**550.00**	**H**	17.11	
+	cis-Aconitate	**165.15**	**H**	**-25.76**	**L**
+	Citrate	**-60.28**	**L**	**26.33**	**H**
-	D-Arabinitol	0.00		**-30.56**	**L**
	DHPP	**-50.00**	**L**	**-50.00**	**L**
	D-Lactate	-7.89		-2.63	
-	Ethylmalonate	0.00		-11.11	
-	Formiminoglutamic Acid	0.00		**33.33**	**H**
+	Fumarate	**5982.20**	**H**	**-50.00**	**L**
	Glucarate	-3.97		-8.73	
-	Hippurate	1.09		**50.18**	**H**
	Homovanillate	-13.89		-21.05	
+	Hydroxymethylglutarate	**1047.22**	**H**	0.00	
	Indican	-14.06		15.63	
+	Isocitrate	**1227.97**	**H**	**-36.44**	**L**
-	Kynurenate	20.00		**30.00**	**H**
-	Lactate	**-41.82**	**L**	**130.00**	**H**
-	Malate	**28.57**	**H**	**-50.00**	**L**
+	Methylmalonate	**91.18**	**H**	**-26.47**	**L**
	Orotate	**50.00**	**H**	**-50.00**	**L**
+	Phenylacetate	22.73		-4.55	
	Phenylpropionate	**-50.00**	**L**	**-50.00**	**L**
-	p-Hydroxybenzoate	**31.82**	**H**	**1259.09**	**H**
	P-Hydroxyphenylacetate	18.42		13.16	
-	p-Hydroxyphenyllactate	21.79		**88.46**	**H**
+	Pyroglutamate	17.80		5.93	
+	Pyruvate	**1293.59**	**H**	**-50.00**	**L**
+	Quinolinate	**255.00**	**H**	**-27.50**	**L**
-	Suberate	11.90		**-26.19**	**L**
-	Succinate	-6.03		**51.72**	**H**
-	Sulfate	4.86		24.80	
+	Tricarballylate	**486.99**	**H**	**-50.00**	**L**
-	Vanilmandelate	**-45.24**	**L**	**-63.04**	**L**
-	Xanthurenate	5.88		**-50.00**	**L**
	Total Status Deviation	**320.73**		**105.26**	
	Total Status Skew	**293.44**		**58.88**	

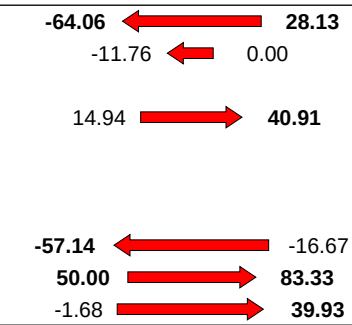
Ammonia/Energy	3/17/2014		5/19/2015		+/-	
Arginine	**28.13**	H	**-64.06**	L	-	**-64.06** ← **28.13**
Threonine	-16.67		**-57.14**	L	-	**-57.14** ← -16.67
Glycine	**-42.04**	L	**-46.02**	L		
Serine	**-43.85**	L	**-37.69**	L		
a-Aminoadipic Acid	**50.00**	H	**50.00**	H		
Asparagine	-9.38		**-50.00**	L	-	**-50.00** ← -9.38
Aspartic Acid	**-53.92**	L	**-67.65**	L	-	**-67.65** ← **-53.92**
Citrulline	15.22		**41.30**	H	-	15.22 → **41.30**
Glutamic Acid	**-30.58**	L	-16.99		+	**-30.58** → -16.99
Glutamine	-10.06		16.77			
Ornithine	**-28.00**	L	-12.00		+	**-28.00** → -12.00
a-Amino-N-Butyric Acid	21.43		3.57		+	3.57 ← 21.43
Alanine	**-36.91**	L	**-50.73**	L	-	**-50.73** ← **-36.91**
b-Alanine	**32.14**	H	**35.71**	H		
PSS / PSD	-8.89 / 29.88		-18.21 / 39.26			

CNS Metabolism	3/17/2014		5/19/2015		+/-	
Arginine	**28.13**	H	**-64.06**	L	-	**-64.06** ← **28.13**
Tryptophan	**50.00**	H	**83.33**	H	-	**50.00** → **83.33**
GABA	**46.67**	H	**46.67**	H		
Glycine	**-42.04**	L	**-46.02**	L		
Serine	**-43.85**	L	**-37.69**	L		
Taurine	3.97		-3.97			
Aspartic Acid	**-53.92**	L	**-67.65**	L	-	**-67.65** ← **-53.92**
Glutamine	-10.06		16.77			
Ethanolamine	15.59		22.04			
Phosphoethanolamine	-15.22		17.39			
Phosphoserine	**46.00**	H	**46.00**	H		
PSS / PSD	2.30 / 32.31		1.17 / 41.05			

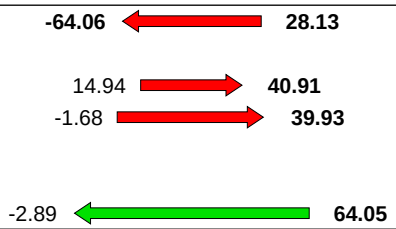
Connective Tissue	3/17/2014		5/19/2015		+/-	
Leucine	14.94		**40.91**	H	-	14.94 → **40.91**
Methionine	14.71		-8.82			
Valine	-1.68		**39.93**	H	-	-1.68 → **39.93**
Cystine	10.54		**-42.52**	L	-	**-42.52** ← 10.54
Hydroxylysine	**46.67**	H	**46.67**	H		
Hydroxyproline	**37.50**	H	18.75		+	18.75 ← **37.50**
3-Methylhistidine	**28.38**	H	**50.00**	H	-	**28.38** → **50.00**
Proline	**-47.50**	L	**-36.25**	L	+	**-47.50** → **-36.25**
PSS / PSD	12.94 / 25.24		13.58 / 35.48			

Detoxification Markers	3/17/2014		5/19/2015		+/-	
Methionine	14.71		-8.82			
Cystine	10.54		**-42.52**	L	-	**-42.52** ← 10.54
Taurine	3.97		-3.97			
Glutamine	-10.06		16.77			
Glycine	**-42.04**	L	**-46.02**	L		
Aspartic Acid	**-53.92**	L	**-67.65**	L	-	**-67.65** ← **-53.92**
PSS / PSD	-12.80 / 22.54		-25.37 / 30.96			

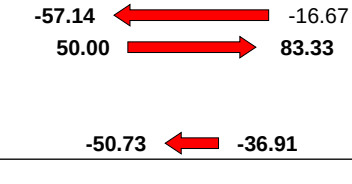
Essential Amino Acid	3/17/2014		5/19/2015		+/-
Arginine	**28.13**	**H**	**-64.06**	**L**	-
Histidine	0.00		-11.76		-
Isoleucine	9.52		9.52		
Leucine	14.94		**40.91**	**H**	-
Lysine	-12.93		-11.21		
Methionine	14.71		-8.82		
Phenylalanine	8.62		1.72		
Threonine	-16.67		**-57.14**	**L**	-
Tryptophan	**50.00**	**H**	**83.33**	**H**	-
Valine	-1.68		**39.93**	**H**	-
PSS / PSD	9.46 / 15.72		2.24 / 32.84		



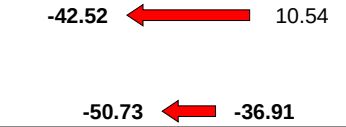
Fat Metabolism	3/17/2014		5/19/2015		+/-
Arginine	**28.13**	**H**	**-64.06**	**L**	-
Isoleucine	9.52		9.52		
Leucine	14.94		**40.91**	**H**	-
Valine	-1.68		**39.93**	**H**	-
Taurine	3.97		-3.97		
Glutamine	-10.06		16.77		
Sarcosine	**64.05**	**H**	-2.89		+
PSS / PSD	15.55 / 18.91		5.17 / 25.44		



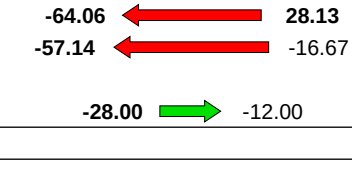
Gluconeogen	3/17/2014		5/19/2015		+/-
Threonine	-16.67		**-57.14**	**L**	-
Tryptophan	**50.00**	**H**	**83.33**	**H**	-
Glycine	**-42.04**	**L**	**-46.02**	**L**	
Serine	**-43.85**	**L**	**-37.69**	**L**	
Alanine	**-36.91**	**L**	**-50.73**	**L**	-
PSS / PSD	-17.89 / 37.89		-21.65 / 54.98		



Hepatic Metabolism	3/17/2014		5/19/2015		+/-
Methionine	14.71		-8.82		
Taurine	3.97		-3.97		
Glutamine	-10.06		16.77		
Cystine	10.54		**-42.52**	**L**	-
Cystathionine	**33.33**	**H**	**33.33**	**H**	
Homocystine	**41.67**	**H**	**41.67**	**H**	
Alanine	**-36.91**	**L**	**-50.73**	**L**	-
PSS / PSD	8.18 / 21.60		-2.04 / 28.26		



Immune Metabolites	3/17/2014		5/19/2015		+/-
Arginine	**28.13**	**H**	**-64.06**	**L**	-
Threonine	-16.67		**-57.14**	**L**	-
Glutamine	-10.06		16.77		
Ornithine	**-28.00**	**L**	-12.00		+
PSS / PSD	-6.65 / 20.71		-29.11 / 37.49		



Magnesium Dependents	3/17/2014		5/19/2015		+/-	
Citrulline	15.22		**41.30**	**H**	-	15.22 → **41.30**
Ethanolamine	15.59		22.04			
Phosphoethanolamine	-15.22		17.39			
Phosphoserine	**46.00**	**H**	**46.00**	**H**		
Serine	**-43.85**	**L**	**-37.69**	**L**		
PSS / PSD	3.55 / 27.17		17.81 / 32.89			

Muscle Metabolites	3/17/2014		5/19/2015		+/-	
Anserine	**27.78**	**H**	**36.11**	**H**	-	**27.78** → **36.11**
Carnosine	6.25		12.50			
1-Methylhistidine	**40.28**	**H**	**-39.31**	**L**		
3-Methylhistidine	**28.38**	**H**	**50.00**	**H**	-	**28.38** → **50.00**
PSS / PSD	25.67 / 25.67		14.83 / 34.48			

Neuroendocrine Metab	3/17/2014		5/19/2015		+/-	
GABA	**46.67**	**H**	**46.67**	**H**		
Glycine	**-42.04**	**L**	**-46.02**	**L**		
Serine	**-43.85**	**L**	**-37.69**	**L**		
Taurine	3.97		-3.97			
Tyrosine	-7.14		16.67		-	-7.14 → 16.67
PSS / PSD	-8.48 / 28.73		-4.87 / 30.20			

Urea Cycle Metabolites	3/17/2014		5/19/2015		+/-	
Arginine	**28.13**	**H**	**-64.06**	**L**	-	**-64.06** ← **28.13**
Aspartic Acid	**-53.92**	**L**	**-67.65**	**L**	-	**-67.65** ← **-53.92**
Citrulline	15.22		**41.30**	**H**	-	15.22 → **41.30**
Ornithine	**-28.00**	**L**	-12.00		+	**-28.00** → -12.00
Glutamine	-10.06		16.77			
Asparagine	-9.38		**-50.00**	**L**	-	**-50.00** ← -9.38
PSS / PSD	-9.67 / 24.12		-22.61 / 41.96			

Adrenal Function	1/20/2011		5/19/2015		+/-	
Cholesterol	9.17		15.83			
Eosinophils	7.14		-4.29			
Eosinophil Count	11.00		-6.00			
Potassium	8.82		-8.82			
Sodium	**30.00**	**H**	-10.00		+	-10.00 ← **30.00**
Chloride	22.73		13.64		+	13.64 ← 22.73
PSS / PSD	14.81 / 14.81		0.06 / 9.76			

Allergy	1/20/2011		5/19/2015		+/-	
Eosinophils	7.14		-4.29			
Globulin	**-26.67**	**L**	-6.67		+	**-26.67** → -6.67
Lymphocytes	-18.75		**-30.62**	**L**	-	**-30.62** ← -18.75
Monocytes	16.67		8.89		+	8.89 ← 16.67
W.B.C.	-17.69		**-26.92**	**L**	-	**-26.92** ← -17.69
PSS / PSD	-7.86 / 17.38		-11.92 / 15.48			

Panel/Subset Comparison Report

Franklin Cook — **Foundational Wellness Profile Date: 5/19/2015**

Male / Age: 71 — Anna Salanti (2718)

Athletic Potential	1/20/2011		5/19/2015		+/-
B.U.N./Creatinine Ratio	6.14		**101.43**	H	-
Cholesterol	9.17		15.83		
CO2	-16.67		-16.67		
Creatinine	15.71		**-55.88**	L	-
Potassium	8.82		-8.82		
Protein, Total	-14.00		-10.00		
Sodium	**30.00**	H	-10.00		+
HDL-Cholesterol	2.50		-10.00		
PSS / PSD	5.21 / 12.88		0.74 / 28.58		

Biochemical Ratios	1/20/2011		5/19/2015		+/-
A/G Ratio	24.03		-21.43		
B.U.N./Creatinine Ratio	6.14		**101.43**	H	-
Sodium/Potassium Ratio	-1.85		7.14		
PSS / PSD	9.44 / 10.67		29.05 / 43.33		

Bone/Joint	1/20/2011		5/19/2015		+/-
Albumin	**42.31**	H	3.85		+
Alkaline Phosphatase	-10.00		-7.78		
Calcium	2.38		-11.90		-
Neutrophils	11.76		**29.41**	H	-
Protein, Total	-14.00		-10.00		
PSS / PSD	13.46 / 20.32		0.72 / 12.59		

Carbohydrate Metabolism	1/20/2011		5/19/2015		+/-
Glucose	**52.94**	H	**44.12**	H	+
HDL-Cholesterol	2.50		-10.00		
LDL	**52.94**	H	**76.47**	H	-
Cholesterol	9.17		15.83		
Triglycerides	9.26		1.32		+
PSS / PSD	25.36 / 25.36		25.55 / 29.55		

Cardiac Risk	1/20/2011		5/19/2015		+/-
Cholesterol	9.17		15.83		
sGOT	**-31.82**	L	-1.43		+
Triglycerides	9.26		1.32		+
HDL-Cholesterol	2.50		-10.00		
LDL	**52.94**	H	**76.47**	H	-
PSS / PSD	15.09 / 23.04		16.44 / 21.01		

Cellular Production	1/20/2011		5/19/2015		+/-
Alkaline Phosphatase	-10.00		-7.78		
Anion Gap	**55.00**	H	12.00		+
Neutrophils	11.76		**29.41**	H	-
W.B.C.	-17.69		**-26.92**	L	-
PSS / PSD	19.62 / 28.85		1.68 / 19.03		

Electrolyte Balance	1/20/2011		5/19/2015		+/-
Calcium	2.38		-11.90		-
Chloride	22.73		13.64		+
CO2	-16.67		-16.67		
Potassium	8.82		-8.82		
Sodium	**30.00**	**H**	-10.00		+
PSS / PSD	9.45 / 16.12		-6.75 / 12.21		

Gastrointest. Function	1/20/2011		5/19/2015		+/-
Anion Gap	**55.00**	**H**	12.00		+
Chloride	22.73		13.64		+
Cholesterol	9.17		15.83		
CO2	-16.67		-16.67		
Monocytes	16.67		8.89		+
Potassium	8.82		-8.82		
Sodium	**30.00**	**H**	-10.00		+
Triglycerides	9.26		1.32		+
LDL	**52.94**	**H**	**76.47**	**H**	-
PSS / PSD	20.88 / 24.58		10.30 / 18.18		

Hydration	1/20/2011		5/19/2015		+/-
Albumin	**42.31**	**H**	3.85		+
Sodium	**30.00**	**H**	-10.00		+
Potassium	8.82		-8.82		
Chloride	22.73		13.64		+
Calcium	2.38		-11.90		-
CO2	-16.67		-16.67		
Creatinine	15.71		**-55.88**	**L**	-
B.U.N.	**26.19**	**H**	**35.71**	**H**	-
PSS / PSD	16.43 / 20.60		-6.26 / 19.56		

Immune Response	1/20/2011		5/19/2015		+/-
Basophils	0.00		**-35.00**	**L**	-
Eosinophils	7.14		-4.29		
Lymphocytes	-18.75		**-30.62**	**L**	-
Monocytes	16.67		8.89		+
Neutrophils	11.76		**29.41**	**H**	-
Globulin	**-26.67**	**L**	-6.67		+
PSS / PSD	-1.64 / 13.50		-6.38 / 19.15		

Immune Response Count	1/20/2011		5/19/2015		+/-
Basophil Count	-19.50		**-41.75**	**L**	-
Eosinophil Count	11.00		-6.00		
Lymphocyte Count	**-29.89**	**L**	**-39.18**	**L**	-
Monocyte Count	6.67		-4.28		
Neutrophil Count	-17.98		-18.58		
PSS / PSD	-9.94 / 17.01		-21.96 / 21.96		

Panel/Subset Comparison Report

Franklin Cook — **Foundational Wellness Profile Date: 5/19/2015**

Male / Age: 71 — Anna Salanti (2718)

Inflammatory Process	1/20/2011		5/19/2015		+/-
Eosinophils	7.14		-4.29		
LDL	**52.94**	**H**	**76.47**	**H**	-
Monocytes	16.67		8.89		+
Lymphocytes	-18.75		**-30.62**	**L**	-
Neutrophils	11.76		**29.41**	**H**	-
W.B.C.	-17.69		**-26.92**	**L**	-
Basophils	0.00		**-35.00**	**L**	-
PSS / PSD	6.51 / 15.62		2.56 / 30.23		

Kidney Function	1/20/2011		5/19/2015		+/-
Albumin	**42.31**	**H**	3.85		+
B.U.N.	**26.19**	**H**	**35.71**	**H**	-
B.U.N./Creatinine Ratio	6.14		**101.43**	**H**	-
Chloride	22.73		13.64		+
CO2	-16.67		-16.67		
Creatinine	15.71		**-55.88**	**L**	-
Glucose	**52.94**	**H**	**44.12**	**H**	+
Potassium	8.82		-8.82		
Protein, Total	-14.00		-10.00		
Sodium	**30.00**	**H**	-10.00		+
PSS / PSD	15.83 / 21.41		9.74 / 30.01		

Lipid	1/20/2011		5/19/2015		+/-
Cholesterol	9.17		15.83		
Triglycerides	9.26		1.32		+
HDL-Cholesterol	2.50		-10.00		
LDL	**52.94**	**H**	**76.47**	**H**	-
PSS / PSD	18.47 / 18.47		20.91 / 25.91		

Liver Function	1/20/2011		5/19/2015		+/-
Albumin	**42.31**	**H**	3.85		+
Alkaline Phosphatase	-10.00		-7.78		
Bilirubin, Total	4.55		13.64		-
Protein, Total	-14.00		-10.00		
sGOT	**-31.82**	**L**	-1.43		+
sGPT	-1.28		-2.00		
PSS / PSD	12.29 / 24.98		-0.62 / 6.45		

Nitrogen	1/20/2011		5/19/2015		+/-
B.U.N.	**26.19**	**H**	**35.71**	**H**	-
B.U.N./Creatinine Ratio	6.14		**101.43**	**H**	-
Creatinine	15.71		**-55.88**	**L**	-
PSS / PSD	12.01 / 12.01		27.09 / 64.34		

Oxidative Stress	1/20/2011		5/19/2015		+/-
Anion Gap	**55.00**	**H**	12.00		+
Bilirubin, Total	4.55		13.64		-
Chloride	22.73		13.64		+
Cholesterol	9.17		15.83		
Glucose	**52.94**	**H**	**44.12**	**H**	+
PSS / PSD	23.42 / 23.42		19.84 / 19.84		

Protein	1/20/2011		5/19/2015		+/-
A/G Ratio	24.03		-21.43		
Albumin	**42.31**	**H**	3.85		+
Globulin	**-26.67**	**L**	-6.67		+
Protein, Total	-14.00		-10.00		
PSS / PSD	6.42 / 26.75		-8.56 / 10.49		

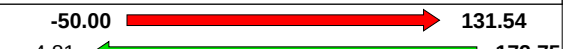
Pulmonary Function	1/20/2011		5/19/2015		+/-
Anion Gap	**55.00**	**H**	12.00		+
Calcium	2.38		-11.90		-
CO2	-16.67		-16.67		
Potassium	8.82		-8.82		
sGOT	**-31.82**	**L**	-1.43		+
Sodium	**30.00**	**H**	-10.00		+
PSS / PSD	7.95 / 24.11		-6.14 / 10.14		

Red Blood Cell Health	1/20/2011		5/19/2015		+/-
Hematocrit	**25.71**	**H**	-13.57		+
Hemoglobin	**27.78**	**H**	-16.67		+
MCH	3.00		19.87		-
MCHC	8.37		1.58		
MCV	2.46		**25.68**	**H**	-
R.B.C.	24.00		**-30.67**	**L**	
W.B.C.	-17.69		**-26.92**	**L**	-
PSS / PSD	10.52 / 15.57		-5.81 / 19.28		

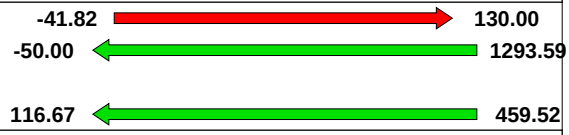
B-Complex Markers	3/17/2014		5/19/2015		+/-
b-Hydroxyisovalerate	**550.00**	**H**	17.11		+
a-Ketoisovalerate	**50.00**	**H**	**-50.00**	**L**	
a-Ketoisocaproate	**-50.00**	**L**	**-50.00**	**L**	
a-Keto-b-methylvalerate	**2300.00**	**H**	**-50.00**	**L**	+
Methylmalonate	**91.18**	**H**	**-26.47**	**L**	+
Formiminoglutamic Acid	0.00		**33.33**	**H**	-
Xanthurenate	5.88		**-50.00**	**L**	-
PSS / PSD	421.01 / 435.29		-25.15 / 39.56		

BCAA Catabolism	3/17/2014		5/19/2015		+/-
a-Ketoisovalerate	**50.00**	**H**	**-50.00**	**L**	
a-Ketoisocaproate	**-50.00**	**L**	**-50.00**	**L**	
a-Keto-b-methylvalerate	**2300.00**	**H**	**-50.00**	**L**	+
PSS / PSD	766.67 / 800.00		-50.00 / 50.00		

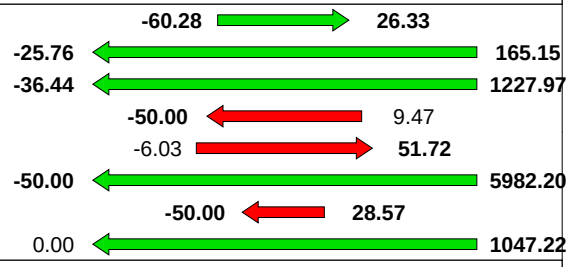
CAC Cycle Ratios	3/17/2014		5/19/2015		+/-
CA Cycle Phase 1	**-50.00**	**L**	**131.54**	**H**	-
CA Cycle Phase 2	**172.75**	**H**	-4.81		+
PSS / PSD	87.91 / 162.08		63.37 / 68.17		



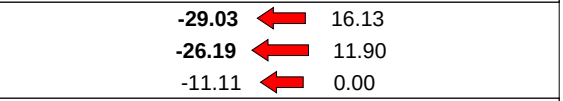
Carbohydrate Metabolism	3/17/2014		5/19/2015		+/-
Lactate	**-41.82**	**L**	**130.00**	**H**	-
Pyruvate	**1293.59**	**H**	**-50.00**	**L**	+
a-Hydroxybutyrate	**-50.00**	**L**	**-50.00**	**L**	
b-Hydroxybutyrate	**459.52**	**H**	**116.67**	**H**	+
PSS / PSD	415.32 / 461.23		36.67 / 86.67		



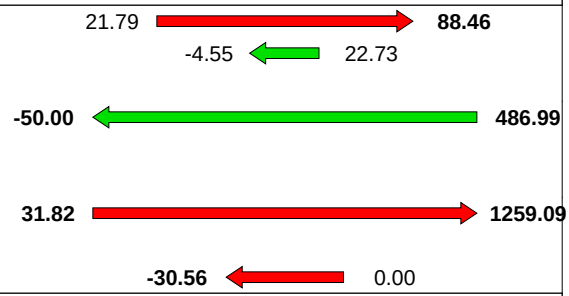
Energy Production	3/17/2014		5/19/2015		+/-
Citrate	**-60.28**	**L**	**26.33**	**H**	+
cis-Aconitate	**165.15**	**H**	**-25.76**	**L**	+
Isocitrate	**1227.97**	**H**	**-36.44**	**L**	+
a-Ketoglutarate	9.47		**-50.00**	**L**	-
Succinate	-6.03		**51.72**	**H**	-
Fumarate	**5982.20**	**H**	**-50.00**	**L**	+
Malate	**28.57**	**H**	**-50.00**	**L**	-
Hydroxymethylglutarate	**1047.22**	**H**	0.00		+
PSS / PSD	1049.28 / 1065.86		-16.77 / 36.28		



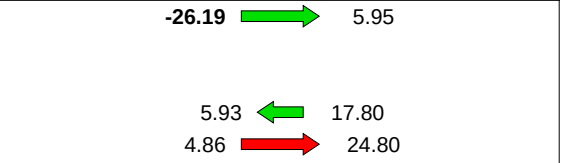
Fatty Acid Metabolism	3/17/2014		5/19/2015		+/-
Adipate	16.13		**-29.03**	**L**	-
Suberate	11.90		**-26.19**	**L**	-
Ethylmalonate	0.00		-11.11		-
PSS / PSD	9.34 / 9.34		-22.11 / 22.11		



Intestinal Dysbiosis	3/17/2014		5/19/2015		+/-
p-Hydroxyphenyllactate	21.79		**88.46**	**H**	-
Phenylacetate	22.73		-4.55		+
Phenylpropionate	**-50.00**	**L**	**-50.00**	**L**	
Tricarballylate	**486.99**	**H**	**-50.00**	**L**	+
DHPP	**-50.00**	**L**	**-50.00**	**L**	
Indican	-14.06		15.63		
p-Hydroxybenzoate	**31.82**	**H**	**1259.09**	**H**	-
D-Lactate	-7.89		-2.63		
D-Arabinitol	0.00		**-30.56**	**L**	-
PSS / PSD	49.04 / 76.14		130.60 / 172.32		



Liver Detox Indicators	3/17/2014		5/19/2015		+/-
2-Methylhippurate	**-26.19**	**L**	5.95		+
Glucarate	-3.97		-8.73		
Orotate	**50.00**	**H**	**-50.00**	**L**	
Pyroglutamate	17.80		5.93		+
Sulfate	4.86		24.80		-
a-Hydroxybutyrate	**-50.00**	**L**	**-50.00**	**L**	
PSS / PSD	-1.25 / 25.47		-12.01 / 24.24		



Panel/Subset Comparison Report

Franklin Cook — **Foundational Wellness Profile Date: 5/19/2015**

Male / Age: 71 — Anna Salanti (2718)

Neurotransmitters	3/17/2014		5/19/2015		+/-	
Vanilmandelate	**-45.24**	**L**	**-63.04**	**L**	-	**-63.04** ← **-45.24**
Homovanillate	-13.89		-21.05			
5-Hydroxyindoleacetate	**1558.57**	**H**	**2021.43**	**H**	-	**1558.57** → **2021.43**
Kynurenate	20.00		**30.00**	**H**	-	20.00 → **30.00**
Quinolinate	**255.00**	**H**	**-27.50**	**L**	+	**-27.50** ← **255.00**
PSS / PSD	354.89 / 378.54		387.97 / 432.60			

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

Custom Amino Acid Profile

Biochemically Individualized for your patient

Ordering Practitioner
Anna Salanti
503-977-2660

Client
Franklin Cook

Visit date
5/19/2015

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	34	-64.06	11
L-Histidine	13.50	76	-11.76	0
L-Isoleucine	13.50	65	9.52	0
L-Leucine	12.00	157	40.91	0
L-Lysine	12.00	192	-11.21	0
L-Methionine	15.00	24	-8.82	0
L-Phenylalanine	15.00	63	1.72	0
L-Taurine	8.10	65	-3.97	0
L-Threonine	13.50	82	-57.14	5
L-Tryptophan (as 5-HTP)	0.90	79	83.33	0
L-Valine	15.00	301	39.93	0

Total Base Grams: **138.00**

Total Grams Added: **16**

Other Ingredients *

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

* Flavored product may include additional ingredients not shown.

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