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(775) 851-3337
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www.carbonbased.com

Frank

Test date: 5/25/2004
(accession: A0405250013)

Next Test Due: 11/24/2004

CellMate™ Foundational Wellness Profile Report

Practitioner

Printed on Monday, June 14, 2004 for:

If there is a problem with this report, please contact us as soon as possible at: (775) 851-3337 or Fax (775) 851-3363

Basic Status High/Low - Plasma Amino Acid on 5/25/2004

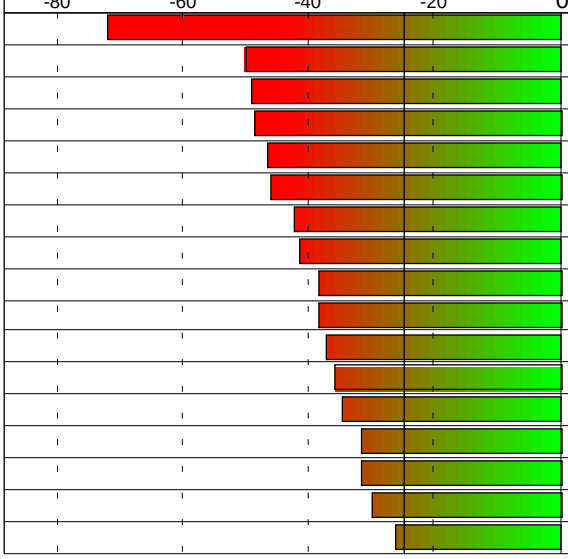
Frank **Foundational Wellness Profile Date: 5/25/2004**

Male / Age: 60

Client ID:548664859 (9732)

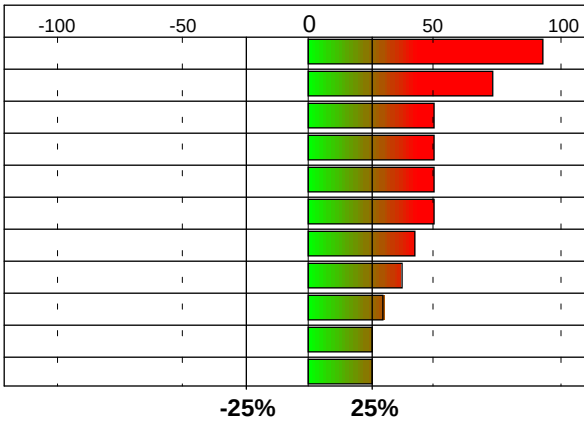
The % Status is the weighted deviation of the laboratory result.

Low Results



	% Status		Result	*Low*	*High*
Serine - P	-71.67	**L**	**64.00**	90.00	210.00
Aspartic Acid - P	-50.00	**L**	**6.00**	6.00	30.00
Taurine - P	-49.00	**L**	**52.00**	50.00	250.00
Lysine - P	-48.67	**L**	**152.00**	150.00	300.00
Glycine - P	-46.44	**L**	**233.00**	225.00	450.00
Methionine - P	-46.00	**L**	**26.00**	25.00	50.00
Glutamic Acid - P	-42.38	**L**	**53.00**	45.00	150.00
Ornithine - P	-41.33	**L**	**63.00**	50.00	200.00
Phenylalanine - P	-38.42	**L**	**56.00**	45.00	140.00
Arginine - P	-38.18	**L**	**63.00**	50.00	160.00
Citrulline - P	-37.27	**L**	**22.00**	15.00	70.00
Asparagine - P	-35.88	**L**	**57.00**	45.00	130.00
Isoleucine - P	-34.55	**L**	**67.00**	50.00	160.00
Valine - P	-31.60	**L**	**216.00**	170.00	420.00
Histidine - P	-31.43	**L**	**83.00**	70.00	140.00
a-Amino-N-Butyric Acid - P	-30.00	**L**	**16.00**	10.00	40.00
Proline - P	-25.93	**L**	**195.00**	130.00	400.00

High Results



	% Status		Result	*Low*	*High*
Glycine/Serine Ratio	92.71	**H**	**3.64**	1.50	3.00
Collagen Related AA	73.33	**H**	**195.00**	10.00	160.00
Anserine - P	50.00	**H**	**1.00**	0.00	1.00
Carnosine - P	50.00	**H**	**1.00**	0.00	1.00
Homocystine - P	50.00	**H**	**1.00**	0.00	1.00
Hydroxylysine - P	50.00	**H**	**1.00**	0.00	1.00
Sarcosine - P	42.00	**H**	**4.60**	0.00	5.00
Tryptophan - P	36.67	**H**	**61.00**	35.00	65.00
3-Methylhistidine - P	30.00	**H**	**4.00**	0.00	5.00
Cystathionine - P	25.00	**H**	**3.00**	0.00	4.00
Ethanolamine - P	25.00	**H**	**6.00**	0.00	8.00

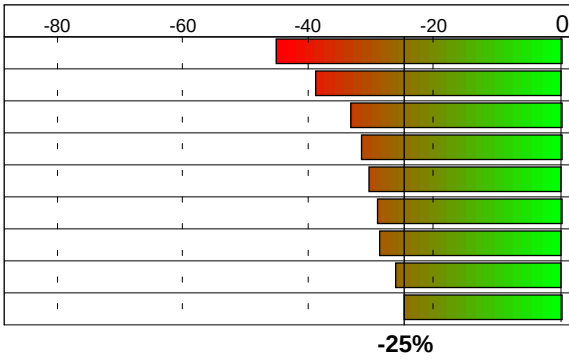
Basic Status High/Low - Blood Test (CWP) on 5/26/2004

Frank **Foundational Wellness Profile Date: 5/25/2004**

Male / Age: 60

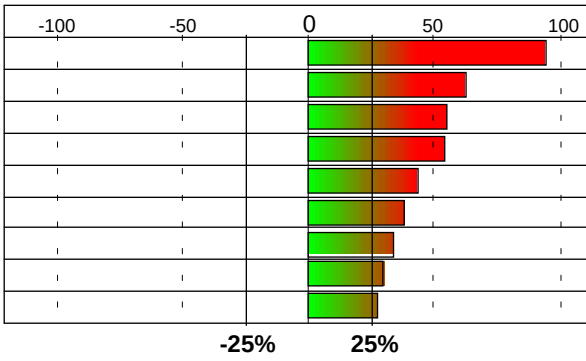
The % Status is the weighted deviation of the laboratory result.

Low Results



	% Status		Result	*Low*	*High*
Calcium	-45.24	**L**	**8.60**	8.50	10.60
Lymphocyte Count	-38.95	**L**	**1242.00**	800.00	4800.00
Lymphocytes	-33.33	**L**	**23.00**	18.00	48.00
MCHC	-31.42	**L**	**32.74**	32.00	36.00
Monocyte Count	-30.22	**L**	**378.00**	200.00	1100.00
B.U.N./Creatinine Ratio	-28.95	**L**	**10.00**	6.00	25.00
W.B.C.	-28.46	**L**	**5.40**	4.00	10.50
Thyroxine (T4)	-26.00	**L**	**6.30**	4.50	12.00
CO2	-25.00	**L**	**23.00**	20.00	32.00

High Results



	% Status		Result	*Low*	*High*
LDL	94.12	**H**	**160.00**	62.00	130.00
Glucose	61.76	**H**	**103.00**	65.00	99.00
Triglycerides	54.70	**H**	**156.00**	0.00	149.00
Cholesterol	54.00	**H**	**244.00**	140.00	240.00
T-3 Uptake	43.33	**H**	**38.00**	24.00	39.00
Anion Gap	38.33	**H**	**18.60**	8.00	20.00
Eosinophils	33.33	**H**	**5.00**	0.00	6.00
Creatinine	30.00	**H**	**1.30**	0.50	1.50
MCV	27.80	**H**	**95.56**	80.00	100.00

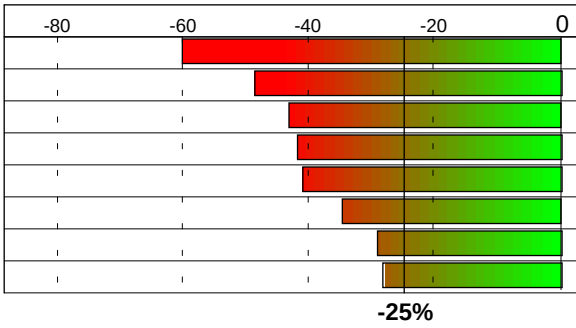
Basic Status High/Low - Urine Organic Acid on 5/25/2004

Frank **Foundational Wellness Profile Date: 5/25/2004**

Male / Age: 60

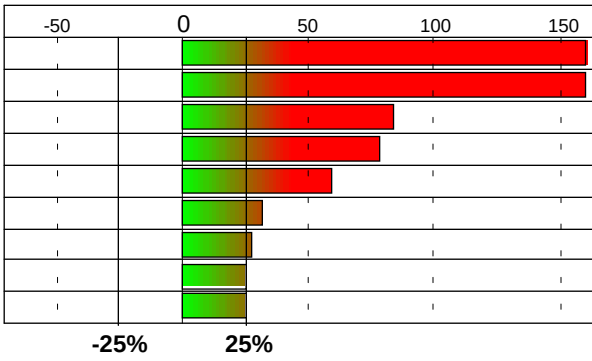
The % Status is the weighted deviation of the laboratory result.

Low Results



	% Status		Result	*Low*	*High*
Sulfate	-60.00	**L**	**162.00**	180.00	360.00
5-Hydroxyindoleacetate	-48.36	**L**	**1.60**	1.50	7.60
CA Cycle Return	-43.19	**L**	**207.78**	125.00	1340.00
Succinate	-41.58	**L**	**3.60**	2.00	21.00
p-Hydroxybenzoate	-40.91	**L**	**0.10**	0.00	1.10
Glucarate	-34.56	**L**	**23.00**	0.00	149.00
Methylmalonate	-29.17	**L**	**1.00**	0.00	4.80
Vanillylmandelate	-28.00	**L**	**1.90**	0.80	5.80

High Results



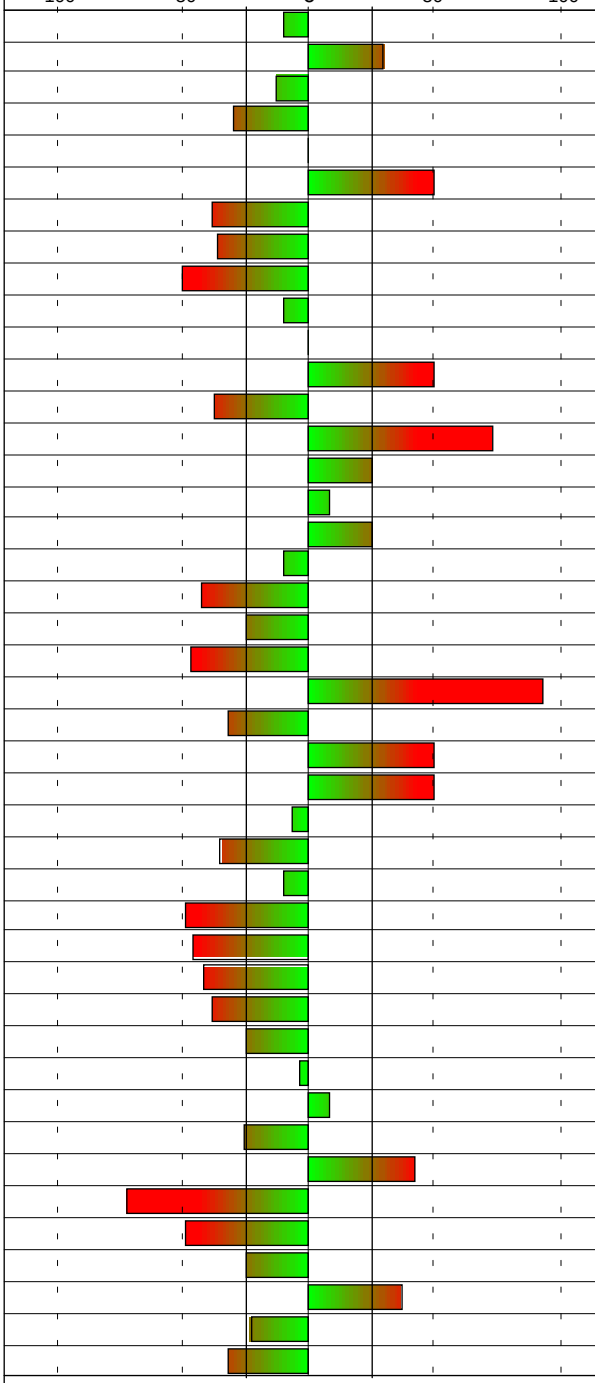
	% Status		Result	*Low*	*High*
CA Cycle Entry	209.72	**H**	**311.67**	0.00	120.00
Tartarate	160.00	**H**	**23.10**	0.00	11.00
b-Hydroxybutyrate	83.33	**H**	**6.00**	0.00	4.50
Malate	78.57	**H**	**1.80**	0.00	1.40
8-Hydroxy-2-deoxyguan	59.09	**H**	**0.12**	0.00	0.11
Orotate	31.82	**H**	**0.90**	0.00	1.10
Hydroxymethylglutarate	27.42	**H**	**6.80**	2.00	8.20
DHPP	25.00	**H**	**0.60**	0.00	0.80
Hippurate	25.00	**H**	**210.00**	0.00	280.00

Basic Status Alphabetic - Plasma Amino Acid on 5/25/2004

Frank **Foundational Wellness Profile Date: 5/25/2004**

Male / Age: 60

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



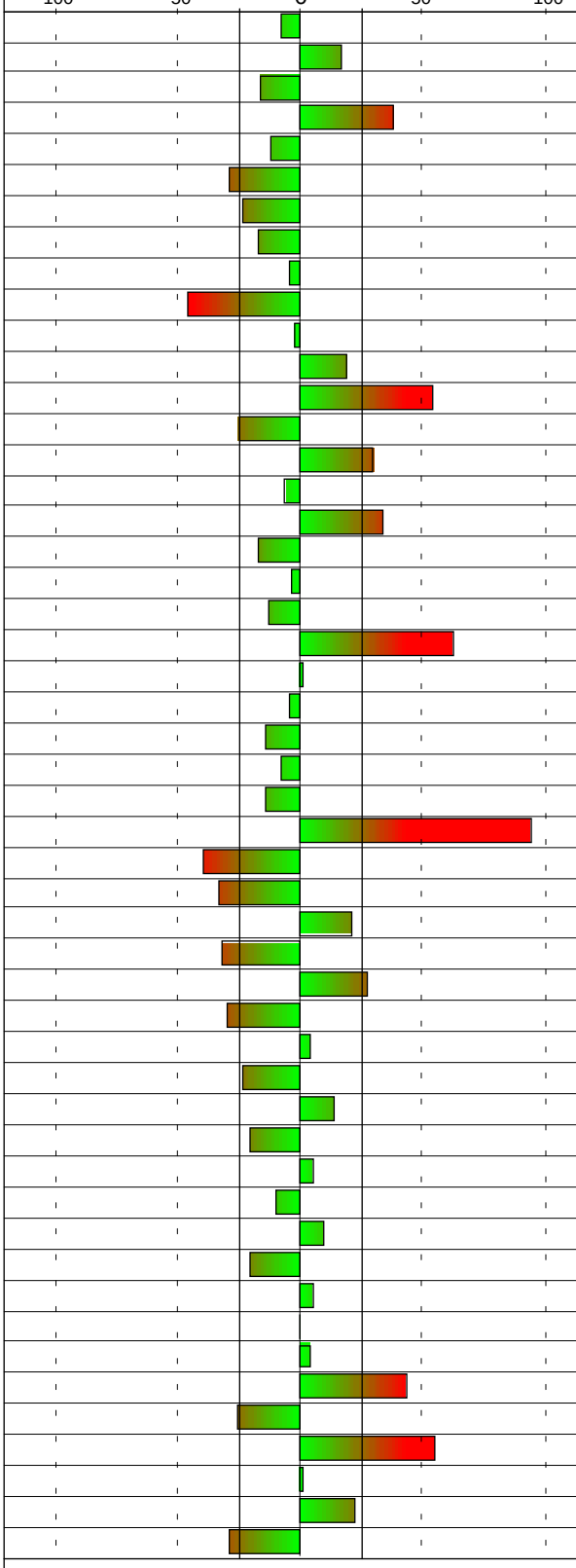
	% Status		Result	Low	High
1-Methylhistidine - P	-10.00		8.00	0.00	20.00
3-Methylhistidine - P	**30.00**	**H**	**4.00**	0.00	5.00
a-Aminoadipic Acid - P	-12.50		1.50	0.00	4.00
a-Amino-N-Butyric Acid - P	**-30.00**	**L**	**16.00**	10.00	40.00
Alanine - P	0.00		425.00	250.00	600.00
Anserine - P	**50.00**	**H**	**1.00**	0.00	1.00
Arginine - P	**-38.18**	**L**	**63.00**	50.00	160.00
Asparagine - P	**-35.88**	**L**	**57.00**	45.00	130.00
Aspartic Acid - P	**-50.00**	**L**	**6.00**	6.00	30.00
b-Alanine - P	-10.00		2.00	0.00	5.00
b-Aminoisobutyric Acid - P	0.00		1.00	0.00	2.00
Carnosine - P	**50.00**	**H**	**1.00**	0.00	1.00
Citrulline - P	**-37.27**	**L**	**22.00**	15.00	70.00
Collagen Related AA	**73.33**	**H**	**195.00**	10.00	160.00
Cystathionine - P	**25.00**	**H**	**3.00**	0.00	4.00
Cystine - P	8.75		57.00	10.00	90.00
Ethanolamine - P	**25.00**	**H**	**6.00**	0.00	8.00
GABA - P	-10.00		2.00	0.00	5.00
Glutamic Acid - P	**-42.38**	**L**	**53.00**	45.00	150.00
Glutamine - P	-24.67		714.00	600.00	1050.00
Glycine - P	**-46.44**	**L**	**233.00**	225.00	450.00
Glycine/Serine Ratio	**92.71**	**H**	**3.64**	1.50	3.00
Histidine - P	**-31.43**	**L**	**83.00**	70.00	140.00
Homocystine - P	**50.00**	**H**	**1.00**	0.00	1.00
Hydroxylysine - P	**50.00**	**H**	**1.00**	0.00	1.00
Hydroxyproline - P	-6.67		13.00	0.00	30.00
Isoleucine - P	**-34.55**	**L**	**67.00**	50.00	160.00
Leucine - P	-10.00		134.00	90.00	200.00
Lysine - P	**-48.67**	**L**	**152.00**	150.00	300.00
Methionine - P	**-46.00**	**L**	**26.00**	25.00	50.00
Ornithine - P	**-41.33**	**L**	**63.00**	50.00	200.00
Phenylalanine - P	**-38.42**	**L**	**56.00**	45.00	140.00
Phenylalanine/Tyrosine	-24.03		0.81	0.50	1.70
Phosphoethanolamine - P	-3.33		14.00	0.00	30.00
Phosphoserine - P	8.33		7.00	0.00	12.00
Proline - P	**-25.93**	**L**	**195.00**	130.00	400.00
Sarcosine - P	**42.00**	**H**	**4.60**	0.00	5.00
Serine - P	**-71.67**	**L**	**64.00**	90.00	210.00
Taurine - P	**-49.00**	**L**	**52.00**	50.00	250.00
Threonine - P	-24.67		138.00	100.00	250.00
Tryptophan - P	**36.67**	**H**	**61.00**	35.00	65.00
Tyrosine - P	-22.86		69.00	50.00	120.00
Valine - P	**-31.60**	**L**	**216.00**	170.00	420.00
Total Status Deviation	**32.88**				
Total Status Skew	**-9.33**				

Basic Status Alphabetic - Blood Test (CWP) on 5/26/2004

Frank **Foundational Wellness Profile Date: 5/25/2004**

Male / Age: 60

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



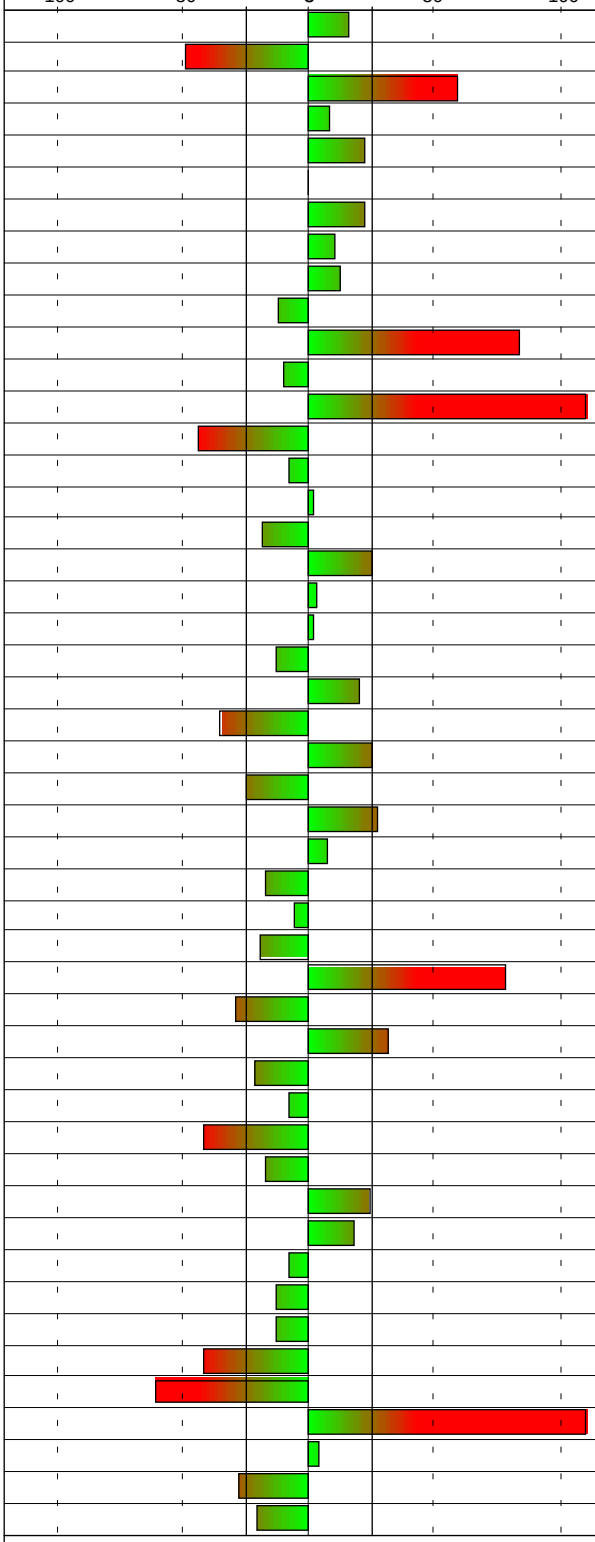
	% Status		Result	Low	High
A/G Ratio	-7.69		1.69	1.10	2.50
Albumin	16.67		4.40	3.60	4.80
Alkaline Phosphatase	-15.60		68.00	25.00	150.00
Anion Gap	**38.33**	**H**	**18.60**	8.00	20.00
B.U.N.	-11.90		13.00	5.00	26.00
B.U.N./Creatinine Ratio	**-28.95**	**L**	**10.00**	6.00	25.00
Basophil Count	-23.00		54.00	0.00	200.00
Basophils	-16.67		1.00	0.00	3.00
Bilirubin, Total	-4.55		0.60	0.10	1.20
Calcium	**-45.24**	**L**	**8.60**	8.50	10.60
Calcium/Phosphorus Ratio	-2.58		2.77	2.30	3.30
Chloride	19.23		105.00	96.00	109.00
Cholesterol	**54.00**	**H**	**244.00**	140.00	240.00
CO2	**-25.00**	**L**	**23.00**	20.00	32.00
Creatinine	**30.00**	**H**	**1.30**	0.50	1.50
Eosinophil Count	-6.00		270.00	50.00	550.00
Eosinophils	**33.33**	**H**	**5.00**	0.00	6.00
Free T4 Index (T7)	-17.57		2.40	1.20	4.90
GGT	-3.85		30.00	0.00	65.00
Globulin	-13.33		2.60	1.50	4.50
Glucose	**61.76**	**H**	**103.00**	65.00	99.00
HDL-Cholesterol	1.16		53.00	31.00	74.00
Hematocrit	-4.44		45.20	37.00	55.00
Hemoglobin	-14.00		14.80	13.00	18.00
Iron, Total	-7.39		89.00	40.00	155.00
LDH	-14.00		154.00	100.00	250.00
LDL	**94.12**	**H**	**160.00**	62.00	130.00
Lymphocyte Count	**-38.95**	**L**	**1242.00**	800.00	4800.00
Lymphocytes	**-33.33**	**L**	**23.00**	18.00	48.00
MCH	21.49		31.29	27.00	33.00
MCHC	**-31.42**	**L**	**32.74**	32.00	36.00
MCV	**27.80**	**H**	**95.56**	80.00	100.00
Monocyte Count	**-30.22**	**L**	**378.00**	200.00	1100.00
Monocytes	3.85		7.00	0.00	13.00
Neutrophil Count	-23.29		3456.00	1800.00	8000.00
Neutrophils	14.00		64.00	48.00	73.00
Phosphorus	-20.00		3.10	2.50	4.50
Potassium	5.00		4.60	3.50	5.50
Protein, Total	-10.00		7.00	6.00	8.50
Protein/Globulin Ratio	9.23		2.69	2.10	3.10
R.B.C.	-20.56		4.73	4.20	6.00
sGOT	5.00		22.00	0.00	40.00
sGPT	0.00		20.00	0.00	40.00
Sodium	3.85		142.00	135.00	148.00
T-3 Uptake	**43.33**	**H**	**38.00**	24.00	39.00
Thyroxine (T4)	**-26.00**	**L**	**6.30**	4.50	12.00
Triglycerides	**54.70**	**H**	**156.00**	0.00	149.00
Ultra-Sensitive TSH	1.38		3.00	0.35	5.50
Uric Acid	22.41		6.60	2.40	8.20
W.B.C.	**-28.46**	**L**	**5.40**	4.00	10.50
Total Status Deviation	**21.45**				
Total Status Skew	**0.53**				

Basic Status Alphabetic - Urine Organic Acid on 5/25/2004

Frank **Foundational Wellness Profile Date: 5/25/2004**

Male / Age: 60

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



	% Status		Result	Low	High
2-Methylhippurate	16.22		0.05	0.00	0.07
5-Hydroxyindoleacetate	**-48.36**	**L**	**1.60**	1.50	7.60
8-Hydroxy-2-deoxyguan	**59.09**	**H**	**0.12**	0.00	0.11
Adipate	8.33		4.90	0.00	8.40
a-Hydroxybutyrate	21.82		7.90	0.00	11.00
a-Keto-b-methylvalerate	0.00		0.70	0.00	1.40
a-Ketoglutarate	22.14		22.20	2.00	30.00
a-Ketoisocaproate	10.00		0.30	0.00	0.50
a-Ketoisovalerate	12.50		0.50	0.00	0.80
Benzoate	-11.76		1.95	0.00	5.10
b-Hydroxybutyrate	**83.33**	**H**	**6.00**	0.00	4.50
b-Hydroxyisovalerate	-10.00		4.40	0.00	11.00
CA Cycle Entry	**209.72**	**H**	**311.67**	0.00	120.00
CA Cycle Return	**-43.19**	**L**	**207.78**	125.00	1340.00
cis-Aconitate	-7.35		79.00	50.00	118.00
Citramalate	1.67		3.10	0.00	6.00
Citrate	-18.16		374.00	175.00	800.00
DHPP	**25.00**	**H**	**0.60**	0.00	0.80
D-Lactate	2.63		1.00	0.00	1.90
Ethylmalonate	1.67		6.20	0.00	12.00
Formiminoglutamic Acid	-12.50		0.06	0.00	0.16
Fumarate	20.00		0.70	0.00	1.00
Glucarate	**-34.56**	**L**	**23.00**	0.00	149.00
Hippurate	**25.00**	**H**	**210.00**	0.00	280.00
Homovanillate	-24.55		2.40	1.00	6.50
Hydroxymethylglutarate	**27.42**	**H**	**6.80**	2.00	8.20
Indican	6.98		49.00	0.00	86.00
Isocitrate	-16.67		60.00	40.00	100.00
Kynurenate	-5.00		1.80	0.00	4.00
Lactate	-18.89		4.80	2.00	11.00
Malate	**78.57**	**H**	**1.80**	0.00	1.40
Methylmalonate	**-29.17**	**L**	**1.00**	0.00	4.80
Orotate	**31.82**	**H**	**0.90**	0.00	1.10
Phenylacetate	-21.43		0.04	0.00	0.14
Phenylpropionate	-7.14		0.03	0.00	0.07
p-Hydroxybenzoate	**-40.91**	**L**	**0.10**	0.00	1.10
P-Hydroxyphenylacetate	-16.67		15.00	0.00	45.00
p-Hydroxyphenyllactate	23.97		0.54	0.00	0.73
Pyroglutamate	18.12		10.90	0.00	16.00
Pyruvate	-7.14		1.20	0.00	2.80
Quinolinate	-12.86		1.30	0.00	3.50
Suberate	-12.96		1.00	0.00	2.70
Succinate	**-41.58**	**L**	**3.60**	2.00	21.00
Sulfate	**-60.00**	**L**	**162.00**	180.00	360.00
Tartarate	**160.00**	**H**	**23.10**	0.00	11.00
Tricarballylate	3.85		0.70	0.00	1.30
Vanillylmandelate	**-28.00**	**L**	**1.90**	0.80	5.80
Xanthurenate	-20.00		0.30	0.00	1.00
Total Status Deviation	**31.59**				
Total Status Skew	**-0.12**				

Nutritional Support

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

- ☐ **1-CAC Entry Protocol**
  See Nutrition Detail
- ☐ **1-Digestive Enzymes**
  With meals
- ☐ **1-Increase Amino Acid Intake**
  8-10 grams daily
- ☐ **1-Oral Electrolyte - Sports Formula**
  2x daily
- ☐ **1-Pyridoxal-5-Phosphate**
  2x daily 20 mg
- ☐ **1-Riboflavin (B2), B12, Folate**
  See nutrition detail
- ☐ **1-Saccharomyces boulardii**
  1-2 capsules with each meal
- ☐ **1-Vitamin E and Acai**
  2x daily 800 IU
- ☐ **2-Betaine HCL**
  2 tablets at mealtime
- ☐ **2-Glycine**
  2x daily 500 mg
- ☐ **2-Iodine**
  2x daily 75 mcg
- ☐ **2-Magnesium Citrate or Glycinate**
  2x daily 150 mg
- ☐ **2-Magnesium, B6 & Manganese**
  2x daily see details
- ☐ **2-Vitamin C**
  1x daily 1000 mg
- ☐ **2-Zinc and Pyridoxine (B6)**
  1x daily see details
- ☐ **2-Zinc Citrate**
  2x daily 50 mg
- ☐ **3-Calcium**
  1x daily 800 mg
- ☐ **H - Billberry**
  1 - 3 times daily
- ☐ **H - Garlic**
  1 - 3 times daily
- ☐ **H - Ginseng (Panax)**
  1 - 3 times daily
- ☐ **H - Green Tea**
  1 - 3 times daily (Can be used as a drink)

Nutritional Supplements to AVOID

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

Creatine MCT Oil Selenium

Food Recommendations

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

Apricots, Dried	Artichoke	Beef	Black Pepper
Blackberries	Blueberries	Bok Choy Cabbage	Boysenberries
Broccoli	Brussel Sprouts	Cantaloupe	Cauliflower
Clams	Cornish Game Hens	Escarole	Fava Beans
Grapefruit	Green Beans	Guava	Halibut
Honeydew Melon	Kale	Kidney Beans	Loganberries
Macadamia Nuts	Mozarella Cheese	Mushrooms	Mustard Greens
Navy Beans	Onions	Orange	Oysters
Papaya	Pecans	Plaintains	Potatoes
Pumpkin	Red Peppers	Ricotta Cheese	Salmon
Shellfish	Snapper	Soy	Strawberries
Turnip Greens	Walnuts	Wild Rice	Yams

Foods to AVOID

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

Bacon	Brazil Nuts	Cholesterol Rich Foods	Chuck Roast
Coconut Cream	Coconut Milk	Coffee	Cucumber
Dairy Cream	Egg Yolk	Hydrogenated Fats	Liver Pate
Margarine	Soybeans	Sweetbreads	

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	63.74%	19.05%
Neuroendocrine Met.	39.99%	-39.99%
Gluconeogen	35.89%	-21.22%
Muscle Metabolites	35.00%	30.00%
Essential Amino Acid	34.02%	-26.68%
Lipid	34.00%	34.00%
Ammonia/Energy	33.21%	-33.21%
Gastrointest. Function	33.12%	27.56%
CNS Metabolism	33.03%	-20.30%
Fat Metabolism	32.86%	-20.86%
Carbohydrate Metabolism	32.80%	19.78%
Immune Metabolites	32.21%	-32.21%
Liver Detox Indicators	29.56%	-7.51%
Hepatic Metabolism	29.06%	-5.13%
Citric Acid Cycle	28.99%	8.05%
Anti Oxidant Status	26.47%	23.06%
Connective Tissue	26.12%	-3.93%
Inflammatory Process	25.59%	20.12%
Intestinal Dysbiosis	25.21%	12.71%

Lab Reported out-of-range Values

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

CA Cycle Entry (209.72%)

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

Tartarate (160.00%)

Elevated levels have often been associated with elevated yeast infestation but the data does not support that assumption. It is more likely that elevated levels of tartaric acid is found because of dietary sources such as grapes and grape by-products such as wine and juice. Research has also suggested that tartarate may be and antagonist to yeast.

CA Cycle Phase 6 (121.43%)

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.

LDL (94.12%)

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.

Foods which may have an adverse affect:

Coconut Milk

Glycine/Serine Ratio (92.71%)

An elevated Glycine/Serine Ratio may indicate poor muscle building, as well as poor glutathione production and impaired phase II detoxification.

b-Hydroxybutyrate (83.33%)

An increase in the level of this organic acid may be indicative of poor carbohydrate metabolism. Chromium supplementation may be helpful.

Malate (78.57%)

A high level of this organic acid may be indicative of a need for certain nutrients such as niacin and Coenzyme Q10.

Drugs which may have an adverse affect:
Lithium

Collagen Related AA (73.33%)

A high reading of this combination of Proline, Hydroxyproline and Hydroxylysine may be indicative of connective tissue breakdown. Use of vitamin C may be helpful in balancing this ratio as well as vitamins B6, B12 and folate.

Serine - P (-71.67%)

Serine is a key amino acid can be converted to glycine and vice versus. It is crucial in the production of many neurotransmitters. It is also important in DNA synthesis, gluconeogenesis and in the creation of many hormones and enzymes. A low result may be indicative of a deficit in acetylcholine synthesis, or methionine metabolism.

Glucose (61.76%)

Glucose, formed by the digestion of carbohydrates and the conversion of glycogen by the liver, is the primary source of energy for most cells. Insulin, glucagon, thyroid hormone, liver enzymes, and adrenal hormones regulate it. It is elevated in diabetes, liver disease, obesity, pancreatitis, steroids, stress, or diet.

Drugs which may have an adverse affect:
Acetaminophen, Acetazolamide, ACTH, Albuterol, Amitriptyline, Aspirin, Chlorpromazine, Cortisone, Dextrothyroxine, Epinephrine, Estrogens, Furosemide, Gemfibrozil, Haloperidol, Hydralazine, Imipramine, Indomethacin, Levodopa, Lithium, Mercaptopurine, Methyldopa, Morphine, Nifedipine, Nitrofurantoin, Phenelzine, Phenylbutazone, Phenytoin, Polythiazide, Pravastatin, Prednisone, Protriptyline, Reserpine

Sulfate (-60.00%)

Phase II liver detoxification may be impaired. Consider adding taurine and glutathione to aid the system in detoxification.

8-Hydroxy-2-deoxyguan (59.09%)

A high reading of 8-Hydroxy-2-deoxyguanosine is an indicator of oxidative DNA damage. A regime of antioxidants as well as restricting fat intake has been suggested to be a way of lowering this component of aging.

Triglycerides (54.70%)

Triglycerides is where most of the stored fat in the body resides. While high triglycerides are clearly associated with coronary heart disease, it is also been shown to be responsive to dietary changes.

Drugs which may have an adverse affect:
Itraconazole, Levothyroxine, Methyldopa, Miconazole, Polythiazide, Propranolol, Tamoxifen

Nutrients which may have an adverse affect:
MCT Oil

Foods which may have an adverse affect:
Bacon, Cholesterol Rich Foods, Chuck Roast, Coconut Cream, Coconut Milk, Dairy Cream, Egg Yolk, Margarine, Sweetbreads

Cholesterol (54.00%)

Cholesterol is a fat, found in the blood which has been reported to be linked, when elevated, to an increased risk of cardiovascular disease. It is not a good independent risk factor but can be helpful in conjunction with HDL (good cholesterol), LDL (bad cholesterol) and the Cholesterol/HDL Ratio in assessing risk for heart disease. High levels may be caused by familial (hereditary) hypercholesterolemia, biliary obstruction, nephrotic syndrome, hypothyroidism, and pregnancy.

Drugs which may have an adverse affect:
Aspirin, Carbamazepine, Chlorpromazine, Clofibrate, Cortisone, Epinephrine, Furosemide, Ibuprofen, Imipramine, Lithium, Methimazole, Miconazole, Paramethadione, Penicillamine, Phenobarbital, Phenylbutazone, Phenytoin, Prednisone, Propranolol, Tamoxifen, Trimethadione, Viomycin

Foods which may have an adverse affect:
Bacon, Cholesterol Rich Foods, Chuck Roast, Coconut Cream, Coconut Milk, Dairy Cream, Egg Yolk, Hydrogenated Fats, Liver Pate, Margarine, Sweetbreads

Anserine - P (50.00%)
May be due to high dietary intake of poultry or zinc deficiency.

Aspartic Acid - P (-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.

Bacteria Markers (-50.00%)
A low reading is consistant with health gut flora.

Carnosine - P (50.00%)
May be indicative of zinc deficiency. Genetic deficiency may lead to neurological development problems and sensory polyneuropathy.

Homocystine - P (50.00%)
This may be indicative of a higher risk of coronary heart disease (atherosclerosis), neurological, ocular, or musclo-skeletal disorders.

Drugs which may have an adverse affect:
Methotrexate

Hydroxylysine - P (50.00%)
A high plasma level of hydroxylysine may be indicative of connective and bone tissue breakdown or the use of a blood thinner such as Coumadin. A high level may also be found in a number of degenerative diseases.

Additional Tests

The following additional lab tests may help in diagnosis.

Consider ordering glucose tolerance test.
Rationale: % Status of Glucose is > 50%

Consider ordering homocystine
Rationale: % Status of Triglycerides is > 50%
% Status of Cholesterol is > 50%

Consider ordering glycohemoglobin
Rationale: % Status of Glucose is > 50%

Consider ordering prostate specific antigen (PSA)
Rationale: Age is >= 40
Sex is Male

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1-CAC Entry Protocol See Nutrition Detail

Rationale

Decreased	Normal	Increased
		CA Cycle Entry

CAC ENTRY PROTOCOL
When the entry point to the citric acid cycle is blocked, the ability to utilize carbohydrates to produce energy is impaired. The following protocol may be helpful in bringing down this ratio.
B-Complex - 2x daily
Amino Acid Complex - 5 grams 2x daily
CoEnzyme Q10 - 50 mg 2x daily
Alpha Lipoic Acid - 200 mg 2x daily
Vitamin C - 1000 mg 2x daily
For children under the age of 6:
Amino Acid Complex with co-factors - 1/8 tsp 2x daily
Vitamin C - 125 mg 2x daily
CoEnzyme Q10 - 12.5 mg daily
For children between the ages of 6 and 18 use 1/2 the adult dose.

1-Digestive Enzymes With meals

Decreased	Normal	Increased
		Glucose Triglycerides

DIGESTIVE ENZYMES
Digestive enzymes are helpful in situations where there are signs of allergy, nutrient depletion, improper fat, protein or carbohydrate metabolism.

1-Increase Amino Acid Intake 8-10 grams daily

Decreased	Normal	Increased
Histidine - P Serine - P Taurine - P	Glutamine - P	

INCREASE AMINO ACID INTAKE
WIth this plasma profile, increasing amino acid intake may be necessary. A balanced amino acid blend is preferable.

1-Oral Electrolyte - Sports Formula 2x daily

Decreased	Normal	Increased
CO2		

ORAL ELECTROLYTE
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.

1-Pyridoxal-5-Phosphate 2x daily 20 mg

Decreased	Normal	Increased
		Cystathionine - P

PYRIDOXINE (B6)
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.

1-Riboflavin (B2), B12, Folate See nutrition detail

Decreased	Normal	Increased
Glycine - P		Sarcosine - P

RIBOFLAVIN (B2), B12, FOLATE
Since sarcosine is formed from the conversion of methionine to glycine in the pathway to choline, the following supplementation regime may be beneficial in bring the sarcosine level down as well as helping to metabolize glycine properly
RIBOFLAVIN
Adult: 1x daily 50 mg Children 1x daily 25 mg
VITAMIN B12
Adult: 1000 mcg 2x daily Children: 1000mcg 1x daily
FOLATE
Adult: 800 mcg 2x daily Children 400 mcg 1x daily

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1-Saccharomyces boulardii 1-2 capsules with each meal

Rationale

Decreased	Normal	Increased
SACCHAROMYCES BOULARDII The beneficial organism S. boulardii is helpful in individuals with a high Dihydroxypheylpropionate (DHPP) level in their urine.		DHPP

1-Vitamin E and Acai 2x daily 800 IU

Decreased	Normal	Increased
VITAMIN E 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. 8-Hydroxy-2-deoxyguanosine elevation has been equated to excessive oxidative stress which would benefit from Vitamin E supplementation. ACAI Pronounced ah-sigh-ee, this berry found exclusively in the Amazon is considered the most potent antioxidant found in nature. It contains 13 different flavonoids and a broad spectrum of vitamins, minerals and fatty acids. Elevated urine cystine may be indicative of an increased level of inflammation.		8-Hydroxy-2-deoxyguan

2-Betaine HCL 2 tablets at mealtime

Decreased	Normal	Increased
BETAIN HCl 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.	Proline - P	Hydroxyproline - P	3-Methylhistidine - P

2-Glycine 2x daily 500 mg

Decreased	Normal	Increased
GLYCINE Glycine is an important amino acid and it is helpful in lowering the levels of Benzoate and Hippurate.		Benzoate	Hippurate

2-Iodine 2x daily 75 mcg

Decreased	Normal	Increased
IODINE (I) Iodine is an essential component of the thyroid hormones. Thyroxine, a main component of thyroid function, contains four iodine atoms.	Thyroxine (T4)		T-3 Uptake

2-Magnesium Citrate or Glycinate 2x daily 150 mg

Decreased	Normal	Increased
MAGNESIUM (Mg) Second most abundant mineral 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		Ethanolamine - P

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2-Magnesium, B6 & Manganese 2x daily see details

MAGNESIUM (Mg)
250 mg
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.
PYRIDOXINE (B6)
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.
MANGANESE (Mn)
15 mg
Concentrated in mitochondria, it stimulates the synthesis of cholesterol and fatty acids. Associated with a large number of enzymes in numerous areas of metabolism. Improves glucose tolerance, neurotransmission, vestibular and neuromuscular function.

Rationale

Decreased	Normal	Increased
Serine - P	Threonine - P	
	Phosphoserine - P	

2-Vitamin C 1x daily 1000 mg

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

Decreased	Normal	Increased
W.B.C.	LDH	LDL
	Alkaline Phosphatase	Triglycerides

2-Zinc and Pyridoxine (B6) 1x daily see details

ZINC (Zn)
25 mg
Active in the structure and function of biomembranes. Involved in more than 200 key enzymes including carbohydrate metabolism, connective tissue metabolism, T-cell function and prostaglandin secretion.
PYRIDOXINE (B6)
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
a-Amino-N-Butyric Acid - P	Threonine - P	

2-Zinc Citrate 2x daily 50 mg

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

Decreased	Normal	Increased
	b-Alanine - P	Anserine - P
	1-Methylhistidine - P	

3-Calcium 1x daily 800 mg

CALCIUM (Ca)
An important mineral partly responsible for cell membrane structure and function which is required for cardiac contraction, regulates hormones, heart respiration, cell division and body fluid bufferings. It is also critical in the building of strong and healthy bones.

Decreased	Normal	Increased
Calcium	Iron, Total	

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H - Billberry 1 - 3 times daily

BILBERRY

Billberry (Vaccinium myrtillus) is an herb often used for the control of insulin levels and may help halt or prevent macular degeneration. It has also been reported to be effective in lowering triglyceride levels. As with any herb, caution should be taken with its use. Bilberry also may interfere with iron absorption.

Rationale

Decreased	Normal	Increased
	Iron, Total	Glucose Triglycerides

H - Garlic 1 - 3 times daily

GARLIC

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.

Decreased	Normal	Increased
		LDL Cholesterol

H - Ginseng (Panax) 1 - 3 times daily

GINSENG

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

H - Green Tea 1 - 3 times daily Can be used as a drink

GREEN TEA

Green tea has been extensively reported to be very beneficial in the prevention of many forms of cancer as well as an potent antioxidant. Caution should be used when consuming green tea as it may contain caffeine. As with any herb, caution should be taken with its use.

Decreased	Normal	Increased
		Anion Gap Cholesterol

AVOID THE FOLLOWING SUPPLEMENTS

AVOID Creatine

CREATINE

Creatine is supportive of nitrogen retention especially in states of catabolism. Synthesized from arginine and glycine in the kidney, creatine is methylated in the liver to form creatine and ultimately creatinine in muscle.

Decreased	Normal	Increased
		Creatinine

AVOID MCT Oil Prescription only

MCT OILS (MEDIUM CHAIN TRIGLYCERIDES)

Saturated fatty acids that are 6 to 12 carbons long. They are absorbed easily because of the greater solubility due to their smaller molecular size.

Decreased	Normal	Increased
		Triglycerides

AVOID Selenium

SELENIUM (Se)

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

Decreased	Normal	Increased
Thyroxine (T4)		T-3 Uptake

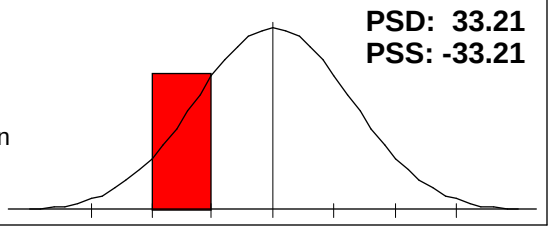
Drugs listed below tend to further aggravate elements of blood chemistry that are out of range (H or L). The (#) after each drug denotes the number of times that drug is flagged as being potentially harmful.

ACTH	Acetaminophen(2)	Acetazolamide(3)	Acyclovir(2)
Albuterol(2)	Allopurinol(2)	Amantadine	Amitriptyline(2)
Ampicillin(2)	Aspirin	Aspirin(6)	Busulfan
Carbamazepine(5)	Chlorpromazine(4)	Clindamycin(2)	Clofibrate(3)
Cortisol	Cortisone(3)	Desipramine(2)	Dextrothyroxine
Diazepam	Epinephrine(2)	Erythromycin(2)	Estrogens
Fluorides(3)	Fluphenazine(2)	Furosemide(4)	Gemfibrozil
Gentamicin(2)	Griseofulvin(2)	Haloperidol(3)	Hydralazine(2)
Hydrocortisone	Hydroxyurea(3)	Ibuprofen(4)	Imipramine(7)
Indomethacin(4)	Insulin	Itraconazole(2)	Kanamycin(3)
Ketocanazole	Levodopa(2)	Levothyroxine	Lincomycin
Lithium(5)	Lovastatin	MAO Inhibitors(3)	Mannitol
Mercaptopurine(2)	Methimazole(2)	Methotrexate(3)	Methyldopa(6)
Miconazole(3)	Morphine	Naproxen(2)	Neomycin(3)
Nifedipine(2)	Nitrofurantoin(4)	Paramethadione(4)	Paromomycin
Penicillamine(5)	Penicillin(3)	Phenelzine(2)	Phenobarbital(4)
Phenylbutazone(5)	Phenytoin(6)	Piroxicam(2)	Polythiazide(3)
Pravastatin	Prednisone(7)	Procainamide(2)	Procarbazine
Propranolol(2)	Protriptyline(3)	Ramipril	Reserpine(3)
Rifampin(3)	Salicylates	Salicylates	Steroids
Streptomycin(3)	Sulfamethizole	Sulfamethoxazole(2)	Sulfasalazine(2)
Sulfisoxazole(2)	Tamoxifen(4)	Tetracycline(5)	Triameterene(4)
Trimethadione(4)	Valproic Acid(2)	Vancomycin(2)	Viomycin(3)

Ammonia/Energy

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

A panel profile such as this may be indicative of inadequate protein intake, poor absorption or poor quality protein intake.

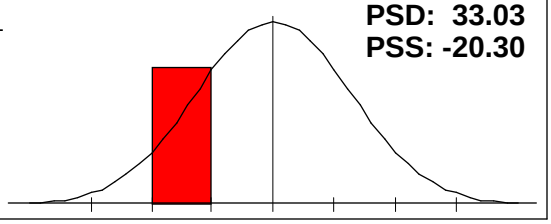


PSD: 33.21
PSS: -33.21

CNS Metabolism

Arginine - P[L], Tryptophan - P[H], GABA - P, Glycine - P[L], Serine - P[L], Taurine - P[L], Aspartic Acid - P[L], Glutamine - P, Ethanolami.

The panel profile seen here may be indicative of poor central nervous system functioning including memory loss, fatigue, poor concentration.

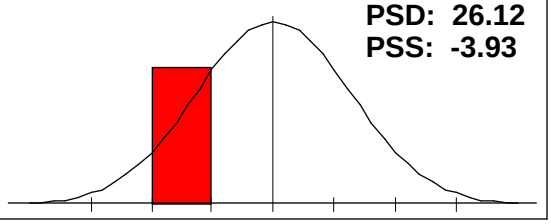


PSD: 33.03
PSS: -20.30

Connective Tissue

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

A profile such as this may be indicative of poor collagen and other tissue formation.

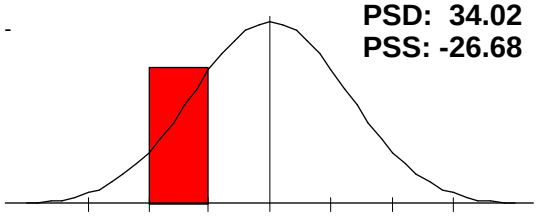


PSD: 26.12
PSS: -3.93

Essential Amino Acid

Arginine - P[L], Histidine - P[L], Isoleucine - P[L], Leucine - P, Lysine - P[L], Methionine - P[L], Phenylalanine - P[L], Threonine - P, Tr.

The panel profile seen here indicates a low density of essential amino acids. Since they cannot be synthesized in the human body, these building blocks must be taken in via diet or supplements.

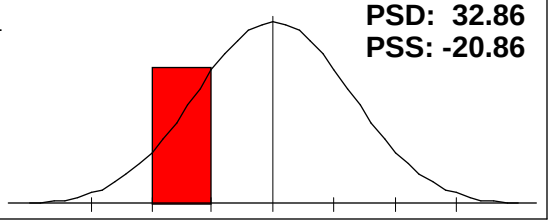


PSD: 34.02
PSS: -26.68

Fat Metabolism

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

A panel profile such as this may indicate an inability of the body to properly metabolize dietary fats. Check for dysbiosis, or try supplementation with lipase digestive enzymes as well as broad spectrum amino acids.

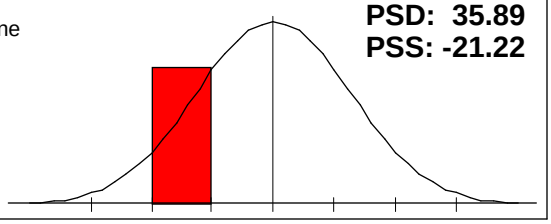


PSD: 32.86
PSS: -20.86

Gluconeogen

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

This panel profile may be indicative of hypoglycemia or poor dietary protein intake.



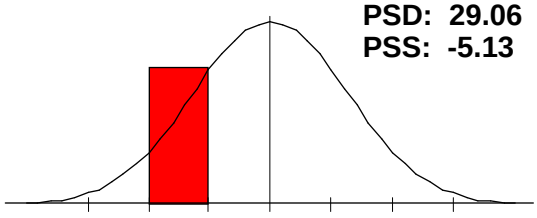
PSD: 35.89
PSS: -21.22

Hepatic Metabolism

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

A panel profile such as this may be indicative of an underfunctioning liver or poor dietary protein intake.

PSD: 29.06
PSS: -5.13

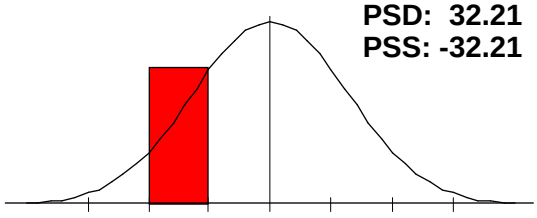


Immune Metabolites

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

A panel profile such as this may be indicative of a poor functioning immune system or low dietary intake of protein.

PSD: 32.21
PSS: -32.21

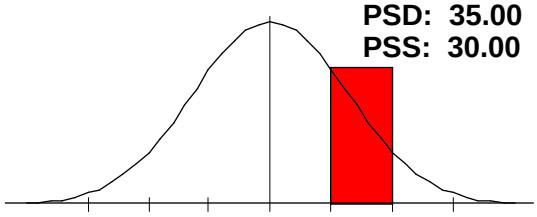


Muscle Metabolites

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

This panel profile may be indicative of abnormal protein metabolism especially if 1-methylhistidine is elevated.

PSD: 35.00
PSS: 30.00

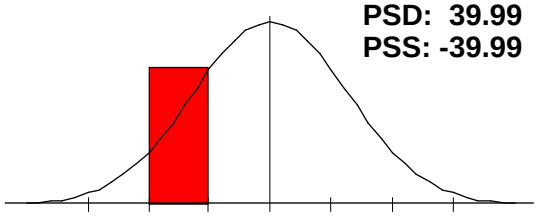


Neuroendocrine Met.

GABA - P, Glycine - P[L], Serine - P[L], Taurine - P[L], Tyrosine - P.

This panel profile may be indicative of an underfunctioning endocrine system or poor dietary intake of protein.

PSD: 39.99
PSS: -39.99

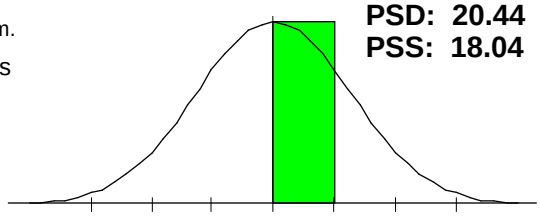


Adrenal Function

Cholesterol[H], Eosinophils[H], Eosinophil Count, Potassium, Sodium.

This panel is meant to assess adrenal function. A deficiency in this panel may indicate adrenal stress. The deviation was below 25% so no abnormalities were found.

PSD: 20.44
PSS: 18.04

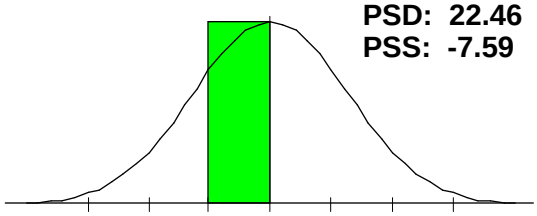


Allergy

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

This panel is used to assess the individual's response to potential allergens. Abnormalities in this panel may indicate the need for additional allergy testing. The deviation was below 25% so no abnormalities were found.

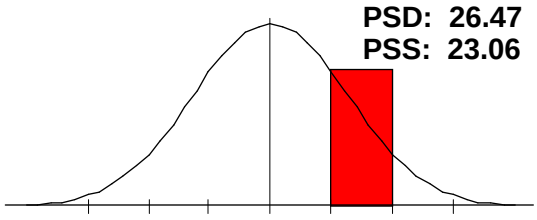
PSD: 22.46
PSS: -7.59



Anti Oxidant Status

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

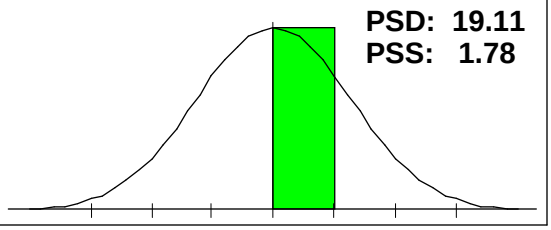
This panel profile may indicate that the patient needs to increase their intake of antioxidants and make appropriate lifestyle changes (smoking, alcohol, reduce stress, etc.). A varied, broad spectrum of antioxidants is preferable to one or two alone.



Athletic Potential

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

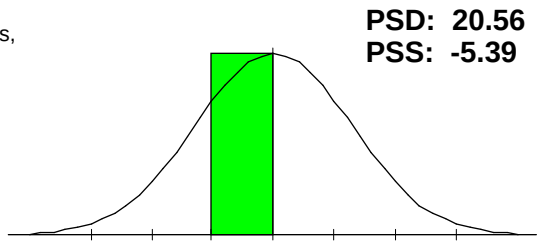
This panel is used to help assess athletic potential. Keeping this panel in a normal range may be helpful in improving athletic performance and reducing the risk of injury. The deviation was below 25% so no abnormalities were found.



Bone/Joint

Albumin, Alkaline Phosphatase, Calcium[L], Neutrophils, Phosphorus, Protein, Total, Uric Acid.

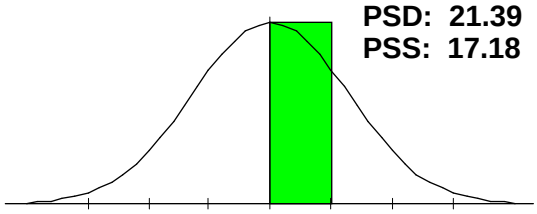
This panel may be helpful in assessing bone and joint health. Keeping the elements of this panel in a normal range may be helpful in reducing the risk of osteoporosis and other bone and joint disorders. The deviation was below 25% so no abnormalities were found.



Cardiac Marker

Cholesterol[H], GGT, Iron, Total, LDH, sGOT, Triglycerides[H], Uric Acid, HDL-Cholesterol, LDL[H].

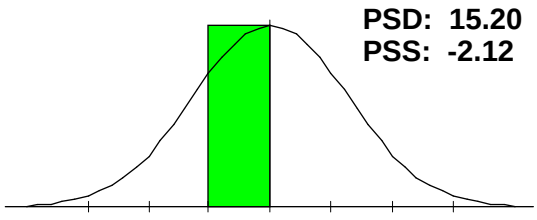
This panel may be helpful in assessing cardiovascular disease risk. Keeping the elements in this panel in a normal range is important in reducing the risk of CVD. The deviation was below 25% so no abnormalities were found.



Cellular Distortions

Alkaline Phosphatase, Anion Gap[H], GGT, Iron, Total, LDH, Neutrophils, W.B.C.[L].

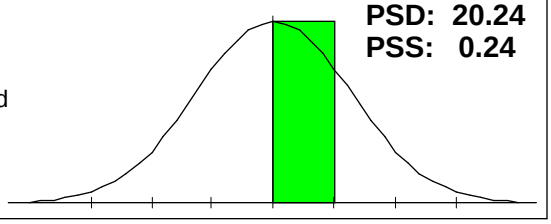
This panel may be helpful in determining the ability of the body to properly produce healthy cells. The deviation was below 25% so no abnormalities were found.



Differential

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

This panel may be helpful in assessing immune system health. Excesses or deficiencies in this panel may indicate a compromised immune system. The deviation was below 25% so no abnormalities were found.



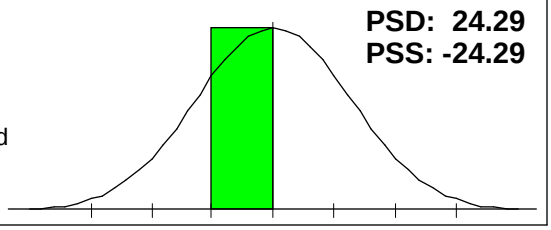
Frank **Foundational Wellness Profile Date: 5/25/2004**

Male / Age: 60

Differential Count

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

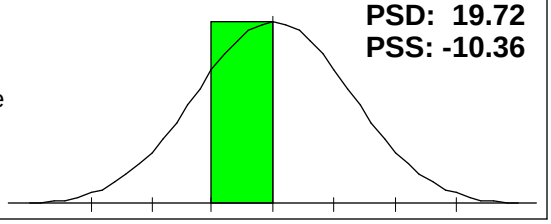
This panel may be helpful in assessing immune system health. Excesses or deficiencies in this panel may indicate a compromised immune system. The deviation was below 25% so no abnormalities were found.



Electrolyte

Calcium[L], Chloride, CO2[L], Phosphorus, Potassium, Sodium.

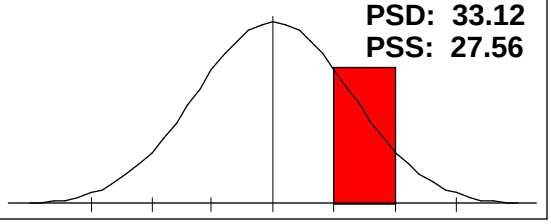
This panel is a representation of electrolyte balance in blood. Balance is critical in maintaining and achieving optimal health. The deviation was below 25% so no abnormalities were found.



Gastrointest. Function

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

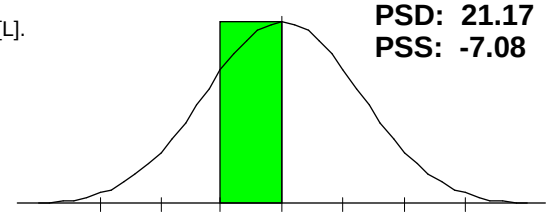
This panel profile indicates the need for further evaluation of gastrointestinal integrity, digestion and absorption. Check for dysbiosis, food allergies or "leaky gut" syndrome.



Hematology

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

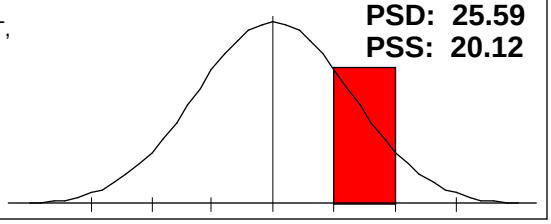
The hematology panel assesses the production of red blood cells and their function. The deviation was below 25% so no abnormalities were found.



Inflammatory Process

Eosinophils[H], Globulin, LDH, Neutrophils, Potassium, sGOT, sGPT, Triglycerides[H], Uric Acid, LDL[H].

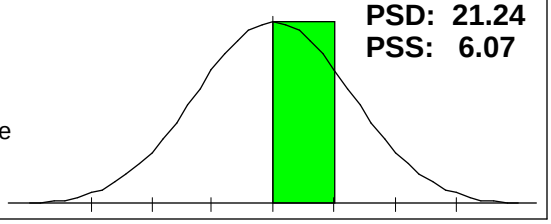
This panel profile may indicate the presence of an ongoing inflammatory process. Consider increasing B-complex vitamins and having the patient avoid saturated and trans fats as well.



Kidney Function

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

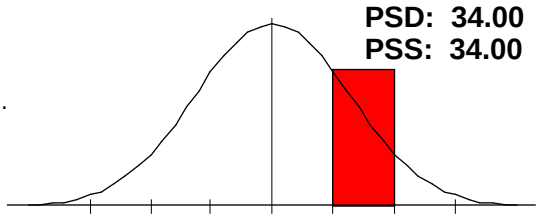
This panel may be helpful in assessing kidney function. It is important to keep the elements of this subset in balance to help the body eliminate waste material. The deviation was below 25% so no abnormalities were found.



Lipid

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

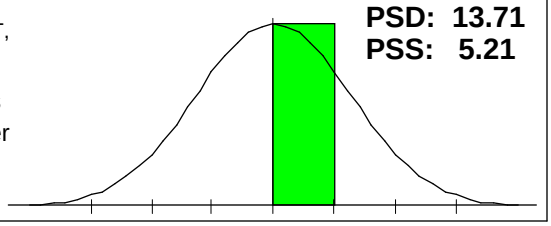
The panel profile seen here suggests that the patient may be at a greater risk for coronary heart disease than the general population. A dietary evaluation should be undertaken as well to educate the patient about saturated and trans fats.



Liver Function

Albumin, Alkaline Phosphatase, Bilirubin, Total, Cholesterol[H], GGT, Protein, Total, sGOT, sGPT.

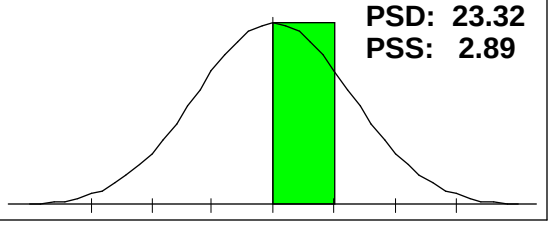
Assessing liver function is important in determining the individual's ability to detoxify itself as well as processing amino acids and other important biological processes. The deviation was below 25% so no abnormalities were found.



Nitrogen

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

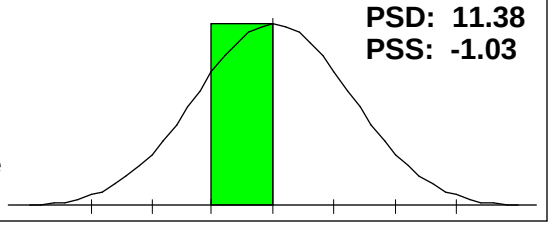
Nitrogen is an important element in achieving optimal wellness. The elements in this panel are important in determining nitrogen competency. The deviation was below 25% so no abnormalities were found.



Protein

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

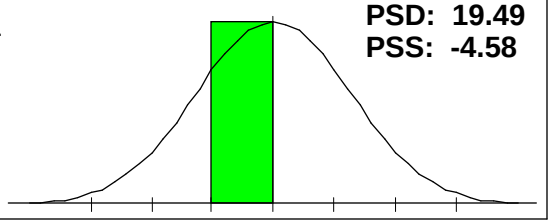
Proteins are the basic building blocks of hormones, muscle, neurotransmitters, immune systems responses and more. Assessing their competency is crucial in achieving optimal wellness. The deviation was below 25% so no abnormalities were found.



Pulmonary Function

Anion Gap[H], Calcium[L], CO2[L], LDH, Potassium, sGOT, Sodium.

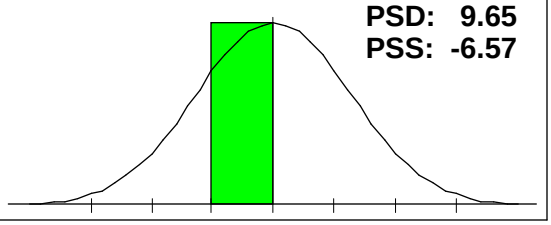
This panel may be helpful in assessing lung and respiratory function. The deviation was below 25% so no abnormalities were found.



Ratios

A/G Ratio, B.U.N./Creatinine Ratio[L], Calcium/Phosphorus Ratio, Sodium/Potassium Ratio, Protein/Globulin Ratio.

This panel may be helpful in determining the general balance of the overall chemistry of the individual. The deviation was below 25% so no abnormalities were found.



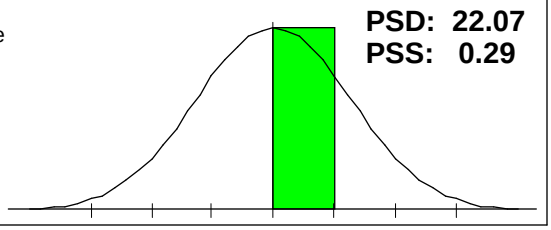
Frank
Male / Age: 60

Foundational Wellness Profile Date: 5/25/2004

Thyroid

Thyroxine (T4)[L], T-3 Uptake[H], Free T4 Index (T7), Ultra-Sensitive TSH.

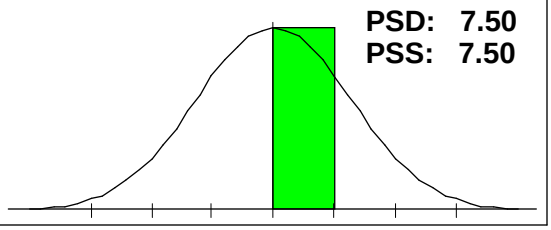
This panel may be helpful in determining the overal health of the thyroid gland. The deviation was below 25% so no abnormalities were found.



Amino Acid Catabolism

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

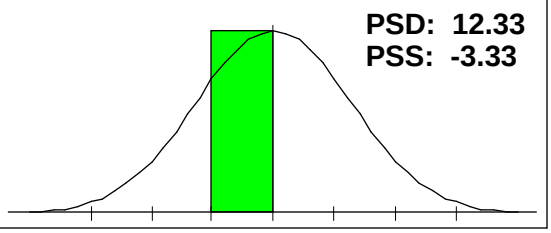
A normal reading in this panel suggest proper amino acid stores.



B-Complex Markers

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

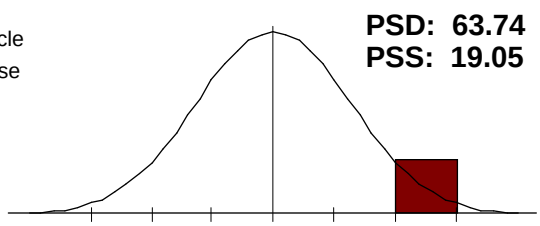
A normal panel profile such as this is an indicator of adequate intake of B-complex vitamins.



CAC Cycle Ratios

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

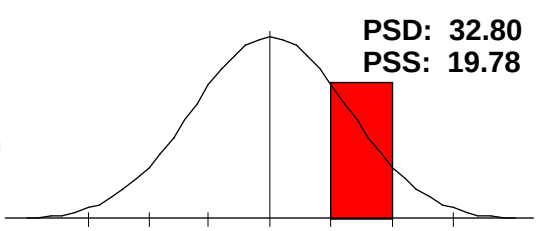
This panel reflects steps of the citric acid cycle. A high reading may be indicative of poor energy production and/or vitamin, mineral and amino acid deficiencies.



Carbohydrate Metabolism

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

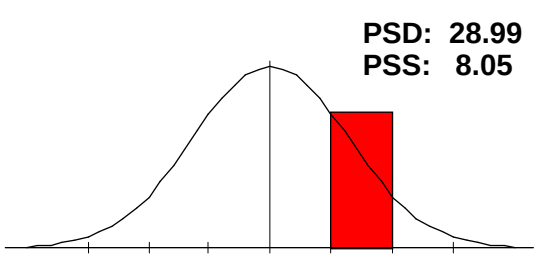
The panel profile seen here may be due to impaired carbohydrate metabolism, inefficient utilization or poor mobilization of carbohydrates. Often, B-complex vitamins are helpful in balancing these results. See Nutritional Support for further details.



Citric Acid Cycle

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

This panel profile result may be due to a breakdown in the Citric Acid Cycle. Supplementation with specific amino acid combinations and precursor vitamins and minerals may help to reverse this imbalance. Review the Nutritional Support section for further details.



Frank **Foundational Wellness Profile Date: 5/25/2004**

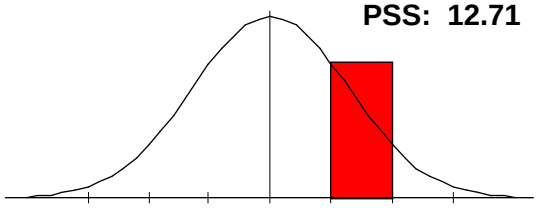
Male / Age: 60

Intestinal Dysbiosis

Hippurate[H], Benzoate, p-Hydroxybenzoate[L], p-Hydroxyphenyllactate, Phenylacetate, Phenylpropionate, Tricarballylate, DHPP[H], Citramalate.

This panel profile may be indicative of intestinal dysbiosis. Poor absorption and metabolism of proteins, fats and carbohydrates may occur. A review of potential bacteria, protozoa, Clostridial spp., yeast or fungus may be necessary.

PSD: 25.21
PSS: 12.71

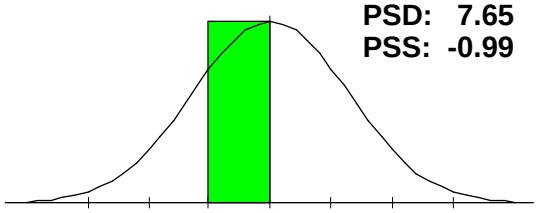


Lipid Metabolism

Adipate, Suberate, Ethylmalonate.

This panel profile is indicative of proper lipid metabolism.

PSD: 7.65
PSS: -0.99

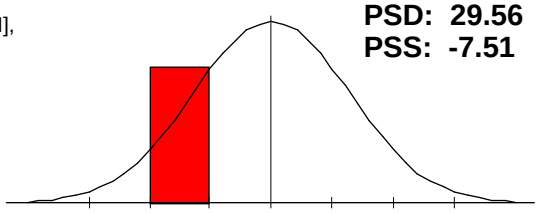


Liver Detox Indicators

2-Methylhippurate, Glucarate[L], P-Hydroxyphenylacetate, Orotate[H], Pyroglutamate, Sulfate[L].

A panel profile such as this may indicate that the liver is inefficient in detoxification.

PSD: 29.56
PSS: -7.51

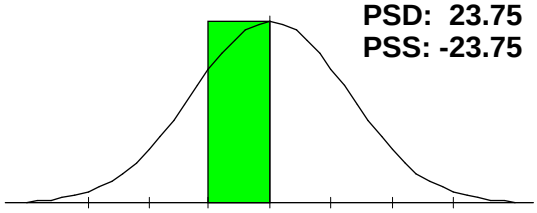


Neurotransmitters

Vanillylmandelate[L], Homovanillate, 5-Hydroxyindoleacetate[L], Kynurenate, Quinolinate.

A normal panel profile indicated good neurotransmitter production.

PSD: 23.75
PSS: -23.75



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.

Cystathioninuria (270.4) 100.00% (1 of 1)

Decreased	*Normal*	*Increased*
		25.00 Cystathionine - P

Fatigue/Low Cellular Energy Production () 100.00% (1 of 1)

Decreased	*Normal*	*Increased*
-50.00 Aspartic Acid - P		

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

Decreased	*Normal*	*Increased*
-38.18 Arginine - P		**50.00 Homocystine - P**

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.

Mild Hyperammonemia () 100.00% (1 of 1)

Decreased	*Normal*	*Increased*
-42.38 Glutamic Acid - P		

Potential Excessive Oxidative Damage () 100.00% (1 of 1)

Decreased	*Normal*	*Increased*
-49.00 Taurine - P		

Potential Rheumatoid Arthritis () 100.00% (1 of 1)

Decreased	*Normal*	*Increased*
-31.43 Histidine - P		

Tryptophanemia () 100.00% (1 of 1)

Decreased	*Normal*	*Increased*
		36.67 Tryptophan - P

Tryptophanemia is a genetic trait when there are consistantly high levels of plasma tryptophan measured.

Review Cardiovascular Risk Factors () 83.33% (5 of 6)

Decreased	*Normal*	*Increased*
	1.16 HDL-Cholesterol	**54.00 Cholesterol**
		61.76 Glucose
		54.70 Triglycerides
		22.41 Uric Acid
		94.12 LDL

Review family history or personal history of cardiovascular risk factors such as smoking, excessive alcohol

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.

Review Cardiovascular Risk Factors (continued)

intake, high fat diet, and/or sedentary lifestyle.

Ammonia Toxicity/Buildup () 75.00% (3 of 4)

Decreased	*Normal*	*Increased*
-34.55 Isoleucine - P		-24.67 Glutamine - P
-50.00 Aspartic Acid - P		
-42.38 Glutamic Acid - P		

Comparison Progress Report

Frank **Foundational Wellness Profile Date: 5/25/2004**

Male / Age: 60

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

Status % on:	7/15/2003		5/25/2004		+/- change
Glycine/Serine Ratio	**34.47**	**H**	**92.71**	**H**	**- 58.23**
Hydroxylysine - P	0.00		**50.00**	**H**	**- 50.00**
Homocystine - P	18.00		**50.00**	**H**	**- 32.00**
GABA - P	**70.00**	**H**	-10.00		+ 60.00
Cystathionine - P	**75.00**	**H**	**25.00**	**H**	**+ 50.00**
1-Methylhistidine - P	**55.00**	**H**	-10.00		+ 45.00
Ethanolamine - P	**62.50**	**H**	**25.00**	**H**	**+ 37.50**
a-Aminoadipic Acid - P	**50.00**	**H**	-12.50		+ 37.50

Comparison Report

Frank **Foundational Wellness Profile Date: 5/25/2004**

Male / Age: 60

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:	7/15/2003		5/25/2004	
-10.00 → **55.00**	+	1-Methylhistidine - P	**55.00**	**H**	-10.00	
30.00 → **50.00**	+	3-Methylhistidine - P	**50.00**	**H**	**30.00**	**H**
-12.50 → **50.00**	+	a-Aminoadipic Acid - P	**50.00**	**H**	-12.50	
-30.00 → -10.00	-	a-Amino-N-Butyric Acid - P	-10.00		**-30.00**	**L**
-24.57 → 0.00	+	Alanine - P	-24.57		0.00	
		Anserine - P	**-49.00**	**L**	**50.00**	**H**
-49.09 → **-38.18**	+	Arginine - P	**-49.09**	**L**	**-38.18**	**L**
-35.88 → -21.76	-	Asparagine - P	-21.76		**-35.88**	**L**
		Aspartic Acid - P	**-45.83**	**L**	**-50.00**	**L**
-30.00 → -10.00	+	b-Alanine - P	**-30.00**	**L**	-10.00	
		b-Aminoisobutyric Acid - P	0.00		0.00	
		Carnosine - P	**-49.00**	**L**	**50.00**	**H**
-37.27 → -24.55	-	Citrulline - P	-24.55		**-37.27**	**L**
73.33 → **90.67**	+	Collagen Related AA	**90.67**	**H**	**73.33**	**H**
25.00 → **75.00**	+	Cystathionine - P	**75.00**	**H**	**25.00**	**H**
		Cystine - P	-10.00		8.75	
25.00 → **62.50**	+	Ethanolamine - P	**62.50**	**H**	**25.00**	**H**
-10.00 → **70.00**	+	GABA - P	**70.00**	**H**	-10.00	
-42.38 → **-28.10**	-	Glutamic Acid - P	**-28.10**	**L**	**-42.38**	**L**
-44.22 → -24.67	+	Glutamine - P	**-44.22**	**L**	-24.67	
-60.22 → **-46.44**	+	Glycine - P	**-60.22**	**L**	**-46.44**	**L**
34.47 → **92.71**	-	Glycine/Serine Ratio	**34.47**	**H**	**92.71**	**H**
-52.86 → **-31.43**	+	Histidine - P	**-52.86**	**L**	**-31.43**	**L**
18.00 → **50.00**	-	Homocystine - P	18.00		**50.00**	**H**
0.00 → **50.00**	-	Hydroxylysine - P	0.00		**50.00**	**H**
		Hydroxyproline - P	-13.33		-6.67	
		Isoleucine - P	**-27.27**	**L**	**-34.55**	**L**
-24.55 → -10.00	+	Leucine - P	-24.55		-10.00	
		Lysine - P	**-49.33**	**L**	**-48.67**	**L**
		Methionine - P	**-46.00**	**L**	**-46.00**	**L**
		Ornithine - P	**-48.00**	**L**	**-41.33**	**L**
		Phenylalanine - P	**-40.53**	**L**	**-38.42**	**L**
-24.03 → -14.08	-	Phenylalanine/Tyrosine	-14.08		-24.03	
-20.00 → -3.33	+	Phosphoethanolamine - P	-20.00		-3.33	
8.33 → 16.67	+	Phosphoserine - P	16.67		8.33	
-25.93 → -16.30	-	Proline - P	-16.30		**-25.93**	**L**
-30.00 → **42.00**	-	Sarcosine - P	**-30.00**	**L**	**42.00**	**H**
		Serine - P	**-64.17**	**L**	**-71.67**	**L**
		Taurine - P	**-48.50**	**L**	**-49.00**	**L**
-48.67 → -24.67	+	Threonine - P	**-48.67**	**L**	-24.67	
-26.67 → **36.67**	-	Tryptophan - P	**-26.67**	**L**	**36.67**	**H**
-38.57 → -22.86	+	Tyrosine - P	**-38.57**	**L**	-22.86	
		Valine - P	**-26.00**	**L**	**-31.60**	**L**
		Total Status Deviation	**37.50**		**32.88**	
		Total Status Skew	**-14.79**		**-9.33**	

Comparison Progress Report

Frank **Foundational Wellness Profile Date: 5/25/2004**

Male / Age: 60

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

Status % on:	7/15/2003		5/25/2004		+/- change
T-3 Uptake	12.67		**43.33**	**H**	**- 30.67**
Basophils	**-50.00**	**L**	-16.67		+ 33.33
Basophil Count	**-50.00**	**L**	-23.00		+ 27.00

Comparison Report

Frank — **Foundational Wellness Profile Date: 5/25/2004**

Male / Age: 60

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:	7/15/2003		5/25/2004	
		A/G Ratio	6.41		-7.69	
-5.00 → 16.67	-	Albumin	-5.00		16.67	
		Alkaline Phosphatase	-22.00		-15.60	
28.33 → **38.33**	-	Anion Gap	**28.33**	**H**	**38.33**	**H**
		B.U.N.	7.14		-11.90	
-28.95 ← -7.02	-	B.U.N./Creatinine Ratio	-7.02		**-28.95**	**L**
-50.00 → -23.00	+	Basophil Count	**-50.00**	**L**	-23.00	
-50.00 → -16.67	+	Basophils	**-50.00**	**L**	-16.67	
-22.73 → -4.55	+	Bilirubin, Total	-22.73		-4.55	
-45.24 ← **-36.96**	-	Calcium	**-36.96**	**L**	**-45.24**	**L**
-21.18 → -2.58	+	Calcium/Phosphorus Ratio	-21.18		-2.58	
11.54 → 19.23	-	Chloride	11.54		19.23	
		Cholesterol	**53.00**	**H**	**54.00**	**H**
		CO2	**-25.00**	**L**	**-25.00**	**L**
16.67 → **30.00**	-	Creatinine	16.67		**30.00**	**H**
		Eosinophil Count	-7.00		-6.00	
		Eosinophils	**33.33**	**H**	**33.33**	**H**
		Free T4 Index (T7)	-18.75		-17.57	
-14.62 → -3.85	+	GGT	-14.62		-3.85	
		Globulin	-18.75		-13.33	
52.27 → **61.76**	-	Glucose	**52.27**	**H**	**61.76**	**H**
		HDL-Cholesterol	-3.49		1.16	
		Hematocrit	-1.67		-4.44	
		Hemoglobin	-14.00		-14.00	
-22.17 → -7.39	+	Iron, Total	-22.17		-7.39	
-14.00 ← -4.38	-	LDH	-4.38		-14.00	
		LDL	**101.47**	**H**	**94.12**	**H**
		Lymphocyte Count	**-35.55**	**L**	**-38.95**	**L**
-33.33 ← -23.33	-	Lymphocytes	-23.33		**-33.33**	**L**
		MCH	**28.19**	**H**	21.49	
-40.37 → **-31.42**	+	MCHC	**-40.37**	**L**	**-31.42**	**L**
27.80 ← **39.29**	+	MCV	**39.29**	**H**	**27.80**	**H**
		Monocyte Count	**-31.00**	**L**	**-30.22**	**L**
		Monocytes	3.85		3.85	
		Neutrophil Count	**-26.03**	**L**	-23.29	
6.00 → 14.00	-	Neutrophils	6.00		14.00	
-20.00 ← -5.00	-	Phosphorus	-5.00		-20.00	
		Potassium	0.00		5.00	
-18.00 → -10.00	+	Protein, Total	-18.00		-10.00	
9.23 ← 23.33	+	Protein/Globulin Ratio	23.33		9.23	
		R.B.C.	-23.89		-20.56	
		sGOT	-10.00		5.00	
-17.50 → 0.00	+	sGPT	-17.50		0.00	
		Sodium	-8.33		3.85	
12.67 → **43.33**	-	T-3 Uptake	12.67		**43.33**	**H**
-26.00 ← -16.25	-	Thyroxine (T4)	-16.25		**-26.00**	**L**
41.95 → **54.70**	-	Triglycerides	**41.95**	**H**	**54.70**	**H**
		Ultra-Sensitive TSH	2.58		1.38	
5.17 → 22.41	-	Uric Acid	5.17		22.41	
		W.B.C.	**-30.00**	**L**	**-28.46**	**L**
		Total Status Deviation	**21.66**		**21.45**	
		Total Status Skew	**-3.10**		**0.53**	

Comparison Progress Report

Frank **Foundational Wellness Profile Date: 5/25/2004**

Male / Age: 60

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

Status % on:	7/15/2003		5/25/2004		+/- change
Tartarate	17.27		**160.00**	**H**	**- 142.73**
CA Cycle Phase 6	-16.67		**121.43**	**H**	**- 104.76**
b-Hydroxybutyrate	-21.11		**83.33**	**H**	**- 62.22**
Malate	-21.43		**78.57**	**H**	**- 57.14**
5-Hydroxyindoleacetate	-7.38		**-48.36**	**L**	**- 40.98**
8-Hydroxy-2-deoxyguan	**31.82**	**H**	**59.09**	**H**	**- 27.27**
Benzoate	**4298.82**	**H**	-11.76		+4287.06
Lactate	**-57.78**	**L**	-18.89		+ 38.89
Quinolinate	**-50.00**	**L**	-12.86		+ 37.14
Isocitrate	**-48.33**	**L**	-16.67		+ 31.67
Citramalate	**30.00**	**H**	1.67		+ 28.33
CA Cycle Entry	**237.22**	**H**	**209.72**	**H**	**+ 27.50**
Kynurenate	**-32.50**	**L**	-5.00		+ 27.50
p-Hydroxybenzoate	**68.18**	**H**	**-40.91**	**L**	**+ 27.27**

Comparison Report

Frank — **Foundational Wellness Profile Date: 5/25/2004**

Male / Age: 60

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:	7/15/2003		5/25/2004	
	2-Methylhippurate	16.22		16.22	
-	5-Hydroxyindoleacetate	-7.38		**-48.36**	**L**
-	8-Hydroxy-2-deoxyguan	**31.82**	**H**	**59.09**	**H**
+	Adipate	**26.19**	**H**	8.33	
-	a-Hydroxybutyrate	3.64		21.82	
+	a-Keto-b-methylvalerate	-14.29		0.00	
-	a-Ketoglutarate	-2.50		22.14	
	a-Ketoisocaproate	-10.00		10.00	
+	a-Ketoisovalerate	**25.00**	**H**	12.50	
+	Benzoate	**4298.82**	**H**	-11.76	
-	b-Hydroxybutyrate	-21.11		**83.33**	**H**
	b-Hydroxyisovalerate	6.36		-10.00	
+	CA Cycle Entry	**237.22**	**H**	**209.72**	**H**
	CA Cycle Return	**46.09**	**H**	**-43.19**	**L**
+	cis-Aconitate	**27.94**	**H**	-7.35	
+	Citramalate	**30.00**	**H**	1.67	
-	Citrate	4.72		-18.16	
-	DHPP	-12.50		**25.00**	**H**
+	D-Lactate	13.16		2.63	
	Ethylmalonate	4.17		1.67	
	Formiminoglutamic Acid	-6.25		-12.50	
+	Fumarate	**30.00**	**H**	20.00	
+	Glucarate	**-47.99**	**L**	**-34.56**	**L**
+	Hippurate	**-43.93**	**L**	**25.00**	**H**
+	Homovanillate	**-33.64**	**L**	-24.55	
-	Hydroxymethylglutarate	-3.23		**27.42**	**H**
+	Indican	-20.93		6.98	
+	Isocitrate	**-48.33**	**L**	-16.67	
+	Kynurenate	**-32.50**	**L**	-5.00	
+	Lactate	**-57.78**	**L**	-18.89	
-	Malate	-21.43		**78.57**	**H**
-	Methylmalonate	-6.25		**-29.17**	**L**
	Orotate	**31.82**	**H**	**31.82**	**H**
	Phenylacetate	**-28.57**	**L**	-21.43	
	Phenylpropionate	-7.14		-7.14	
+	p-Hydroxybenzoate	**68.18**	**H**	**-40.91**	**L**
	P-Hydroxyphenylacetate	-14.44		-16.67	
	p-Hydroxyphenyllactate	17.12		23.97	
+	Pyroglutamate	**30.00**	**H**	18.12	
	Pyruvate	3.57		-7.14	
+	Quinolinate	**-50.00**	**L**	-12.86	
+	Suberate	**31.48**	**H**	-12.96	
-	Succinate	**-30.53**	**L**	**-41.58**	**L**
-	Sulfate	**50.00**	**H**	**-60.00**	**L**
-	Tartarate	17.27		**160.00**	**H**
+	Tricarballylate	**26.92**	**H**	3.85	
-	Vanillylmandelate	-16.00		**-28.00**	**L**
+	Xanthurenate	**-30.00**	**L**	-20.00	
	Total Status Deviation	**97.00**		**31.59**	
	Total Status Skew	**64.21**		**-0.12**	

Frank
Male / Age: 60

Foundational Wellness Profile Date: 5/25/2004

Ammonia/Energy	7/15/2003		5/25/2004		+/-
Arginine - P	**-49.09**	**L**	**-38.18**	**L**	**+**
Threonine - P	**-48.67**	**L**	-24.67		**+**
Glycine - P	**-60.22**	**L**	**-46.44**	**L**	**+**
Serine - P	**-64.17**	**L**	**-71.67**	**L**	
a-Aminoadipic Acid - P	**50.00**	**H**	-12.50		**+**
Asparagine - P	-21.76		**-35.88**	**L**	**-**
Aspartic Acid - P	**-45.83**	**L**	**-50.00**	**L**	
Citrulline - P	-24.55		**-37.27**	**L**	**-**
Glutamic Acid - P	**-28.10**	**L**	**-42.38**	**L**	**-**
Glutamine - P	**-44.22**	**L**	-24.67		**+**
Ornithine - P	**-48.00**	**L**	**-41.33**	**L**	
a-Amino-N-Butyric Acid - P	-10.00		**-30.00**	**L**	**-**
Alanine - P	-24.57		0.00		**+**
b-Alanine - P	**-30.00**	**L**	-10.00		**+**
PSS / PSD	-32.08 / 39.23		-33.21 / 33.21		

CNS Metabolism	7/15/2003		5/25/2004		+/-
Arginine - P	**-49.09**	**L**	**-38.18**	**L**	**+**
Tryptophan - P	**-26.67**	**L**	**36.67**	**H**	**-**
GABA - P	**70.00**	**H**	-10.00		**+**
Glycine - P	**-60.22**	**L**	**-46.44**	**L**	**+**
Serine - P	**-64.17**	**L**	**-71.67**	**L**	
Taurine - P	**-48.50**	**L**	**-49.00**	**L**	
Aspartic Acid - P	**-45.83**	**L**	**-50.00**	**L**	
Glutamine - P	**-44.22**	**L**	-24.67		**+**
Ethanolamine - P	**62.50**	**H**	**25.00**	**H**	**+**
Phosphoethanolamine - P	-20.00		-3.33		**+**
Phosphoserine - P	16.67		8.33		**+**
PSS / PSD	-19.05 / 46.17		-20.30 / 33.03		

Connective Tissue	7/15/2003		5/25/2004		+/-
Leucine - P	-24.55		-10.00		**+**
Methionine - P	**-46.00**	**L**	**-46.00**	**L**	
Valine - P	**-26.00**	**L**	**-31.60**	**L**	
Cystine - P	-10.00		8.75		
Hydroxylysine - P	0.00		**50.00**	**H**	**-**
Hydroxyproline - P	-13.33		-6.67		
3-Methylhistidine - P	**50.00**	**H**	**30.00**	**H**	**+**
Proline - P	-16.30		**-25.93**	**L**	**-**
PSS / PSD	-10.77 / 23.27		-3.93 / 26.12		

Frank
Male / Age: 60

Foundational Wellness Profile Date: 5/25/2004

Essential Amino Acid	7/15/2003		5/25/2004		+/-
Arginine - P	**-49.09**	**L**	**-38.18**	**L**	+
Histidine - P	**-52.86**	**L**	**-31.43**	**L**	+
Isoleucine - P	**-27.27**	**L**	**-34.55**	**L**	
Leucine - P	-24.55		-10.00		+
Lysine - P	**-49.33**	**L**	**-48.67**	**L**	
Methionine - P	**-46.00**	**L**	**-46.00**	**L**	
Phenylalanine - P	**-40.53**	**L**	**-38.42**	**L**	
Threonine - P	**-48.67**	**L**	-24.67		+
Tryptophan - P	**-26.67**	**L**	**36.67**	**H**	-
Valine - P	**-26.00**	**L**	**-31.60**	**L**	
PSS / PSD	-39.10 / 39.10		-26.68 / 34.02		

Fat Metabolism	7/15/2003		5/25/2004		+/-
Arginine - P	**-49.09**	**L**	**-38.18**	**L**	+
Isoleucine - P	**-27.27**	**L**	**-34.55**	**L**	
Leucine - P	-24.55		-10.00		+
Valine - P	**-26.00**	**L**	**-31.60**	**L**	
Taurine - P	**-48.50**	**L**	**-49.00**	**L**	
Glutamine - P	**-44.22**	**L**	-24.67		+
Sarcosine - P	**-30.00**	**L**	**42.00**	**H**	-
PSS / PSD	-35.66 / 35.66		-20.86 / 32.86		

Gluconeogen	7/15/2003		5/25/2004		+/-
Threonine - P	**-48.67**	**L**	-24.67		+
Tryptophan - P	**-26.67**	**L**	**36.67**	**H**	-
Glycine - P	**-60.22**	**L**	**-46.44**	**L**	+
Serine - P	**-64.17**	**L**	**-71.67**	**L**	
Alanine - P	-24.57		0.00		+
PSS / PSD	-44.86 / 44.86		-21.22 / 35.89		

Hepatic Metabolism	7/15/2003		5/25/2004		+/-
Methionine - P	**-46.00**	**L**	**-46.00**	**L**	
Taurine - P	**-48.50**	**L**	**-49.00**	**L**	
Glutamine - P	**-44.22**	**L**	-24.67		+
Cystine - P	-10.00		8.75		
Cystathionine - P	**75.00**	**H**	**25.00**	**H**	+
Homocystine - P	18.00		**50.00**	**H**	-
Alanine - P	-24.57		0.00		+
PSS / PSD	-11.47 / 38.04		-5.13 / 29.06		

Immune Metabolites	7/15/2003		5/25/2004		+/-
Arginine - P	**-49.09**	**L**	**-38.18**	**L**	+
Threonine - P	**-48.67**	**L**	-24.67		+
Glutamine - P	**-44.22**	**L**	-24.67		+
Ornithine - P	**-48.00**	**L**	**-41.33**	**L**	
PSS / PSD	-47.49 / 47.49		-32.21 / 32.21		

Frank
Male / Age: 60

Foundational Wellness Profile Date: 5/25/2004

Muscle Metabolites	7/15/2003		5/25/2004		+/-
Anserine - P	**-49.00**	**L**	**50.00**	**H**	
Carnosine - P	**-49.00**	**L**	**50.00**	**H**	
1-Methylhistidine - P	**55.00**	**H**	-10.00		+
3-Methylhistidine - P	**50.00**	**H**	**30.00**	**H**	+
PSS / PSD	1.75 / 50.75		30.00 / 35.00		

Neuroendocrine Met.	7/15/2003		5/25/2004		+/-
GABA - P	**70.00**	**H**	-10.00		+
Glycine - P	**-60.22**	**L**	**-46.44**	**L**	+
Serine - P	**-64.17**	**L**	**-71.67**	**L**	
Taurine - P	**-48.50**	**L**	**-49.00**	**L**	
Tyrosine - P	**-38.57**	**L**	-22.86		+
PSS / PSD	-28.29 / 56.29		-39.99 / 39.99		

Adrenal Function	7/15/2003		5/25/2004		+/-
Cholesterol	**53.00**	**H**	**54.00**	**H**	
Eosinophils	**33.33**	**H**	**33.33**	**H**	
Eosinophil Count	-7.00		-6.00		
Potassium	0.00		5.00		
Sodium	-8.33		3.85		
PSS / PSD	14.20 / 20.33		18.04 / 20.44		

Allergy	7/15/2003		5/25/2004		+/-
Eosinophils	**33.33**	**H**	**33.33**	**H**	
Globulin	-18.75		-13.33		
Lymphocytes	-23.33		**-33.33**	**L**	-
Monocytes	3.85		3.85		
W.B.C.	**-30.00**	**L**	**-28.46**	**L**	
PSS / PSD	-6.98 / 21.85		-7.59 / 22.46		

Anti Oxidant Status	7/15/2003		5/25/2004		+/-
Anion Gap	**28.33**	**H**	**38.33**	**H**	-
Bilirubin, Total	-22.73		-4.55		+
Chloride	11.54		19.23		-
Cholesterol	**53.00**	**H**	**54.00**	**H**	
Glucose	**52.27**	**H**	**61.76**	**H**	-
Iron, Total	-22.17		-7.39		+
PSS / PSD	14.32 / 27.15		23.06 / 26.47		

Athletic Potential	7/15/2003		5/25/2004		+/-
B.U.N./Creatinine Ratio	-7.02		**-28.95**	**L**	-
Cholesterol	**53.00**	**H**	**54.00**	**H**	
CO2	**-25.00**	**L**	**-25.00**	**L**	
Creatinine	16.67		**30.00**	**H**	-
LDH	-4.38		-14.00		-
Potassium	0.00		5.00		
Protein, Total	-18.00		-10.00		+
Sodium	-8.33		3.85		
HDL-Cholesterol	-3.49		1.16		
PSS / PSD	0.38 / 15.10		1.78 / 19.11		

Bone/Joint	7/15/2003		5/25/2004		+/-
Albumin	-5.00		16.67		-
Alkaline Phosphatase	-22.00		-15.60		
Calcium	**-36.96**	**L**	**-45.24**	**L**	-
Neutrophils	6.00		14.00		-
Phosphorus	-5.00		-20.00		-
Protein, Total	-18.00		-10.00		+
Uric Acid	5.17		22.41		-
PSS / PSD	-10.83 / 14.02		-5.39 / 20.56		

Cardiac Marker	7/15/2003		5/25/2004		+/-
Cholesterol	**53.00**	**H**	**54.00**	**H**	
GGT	-14.62		-3.85		+
Iron, Total	-22.17		-7.39		+
LDH	-4.38		-14.00		-
sGOT	-10.00		5.00		
Triglycerides	**41.95**	**H**	**54.70**	**H**	-
Uric Acid	5.17		22.41		-
HDL-Cholesterol	-3.49		1.16		
LDL	**101.47**	**H**	**94.12**	**H**	
PSS / PSD	12.24 / 21.35		17.18 / 21.39		

Cellular Distortions	7/15/2003		5/25/2004		+/-
Alkaline Phosphatase	-22.00		-15.60		
Anion Gap	**28.33**	**H**	**38.33**	**H**	-
GGT	-14.62		-3.85		+
Iron, Total	-22.17		-7.39		+
LDH	-4.38		-14.00		-
Neutrophils	6.00		14.00		-
W.B.C.	**-30.00**	**L**	**-28.46**	**L**	
PSS / PSD	-7.35 / 15.94		-2.12 / 15.20		

Differential	7/15/2003		5/25/2004		+/-
Basophils	**-50.00**	**L**	-16.67		+
Eosinophils	**33.33**	**H**	**33.33**	**H**	
Lymphocytes	-23.33		**-33.33**	**L**	-
Monocytes	3.85		3.85		
Neutrophils	6.00		14.00		-
PSS / PSD	-6.03 / 23.30		0.24 / 20.24		

Differential Count	7/15/2003		5/25/2004		+/-
Basophil Count	**-50.00**	**L**	-23.00		+
Eosinophil Count	-7.00		-6.00		
Lymphocyte Count	**-35.55**	**L**	**-38.95**	**L**	
Monocyte Count	**-31.00**	**L**	**-30.22**	**L**	
Neutrophil Count	**-26.03**	**L**	-23.29		
PSS / PSD	-29.92 / 29.92		-24.29 / 24.29		

Panel/Subset Comparison Report

Frank — **Foundational Wellness Profile Date: 5/25/2004**

Male / Age: 60

Electrolyte	7/15/2003		5/25/2004		+/-	
Calcium	**-36.96**	**L**	**-45.24**	**L**	-	**-45.24** ← **-36.96**
Chloride	11.54		19.23		-	11.54 → 19.23
CO2	**-25.00**	**L**	**-25.00**	**L**		
Phosphorus	-5.00		-20.00		-	-20.00 ← -5.00
Potassium	0.00		5.00			
Sodium	-8.33		3.85			
PSS / PSD	-10.63 / 14.47		-10.36 / 19.72			

Gastrointest. Function	7/15/2003		5/25/2004		+/-	
Anion Gap	**28.33**	**H**	**38.33**	**H**	-	**28.33** → **38.33**
Chloride	11.54		19.23		-	11.54 → 19.23
Cholesterol	**53.00**	**H**	**54.00**	**H**		
CO2	**-25.00**	**L**	**-25.00**	**L**		
Monocytes	3.85		3.85			
Potassium	0.00		5.00			
Sodium	-8.33		3.85			
Triglycerides	**41.95**	**H**	**54.70**	**H**	-	**41.95** → **54.70**
LDL	**101.47**	**H**	**94.12**	**H**		
PSS / PSD	22.98 / 30.39		27.56 / 33.12			

Hematology	7/15/2003		5/25/2004		+/-	
Hematocrit	-1.67		-4.44			
Hemoglobin	-14.00		-14.00			
MCH	**28.19**	**H**	21.49			
MCHC	**-40.37**	**L**	**-31.42**	**L**	+	**-40.37** → **-31.42**
MCV	**39.29**	**H**	**27.80**	**H**	+	**27.80** ← **39.29**
R.B.C.	-23.89		-20.56			
W.B.C.	**-30.00**	**L**	**-28.46**	**L**		
PSS / PSD	-6.06 / 25.35		-7.08 / 21.17			

Inflammatory Process	7/15/2003		5/25/2004		+/-	
Eosinophils	**33.33**	**H**	**33.33**	**H**		
Globulin	-18.75		-13.33			
LDH	-4.38		-14.00		-	-14.00 ← -4.38
Neutrophils	6.00		14.00		-	6.00 → 14.00
Potassium	0.00		5.00			
sGOT	-10.00		5.00			
sGPT	-17.50		0.00		+	-17.50 → 0.00
Triglycerides	**41.95**	**H**	**54.70**	**H**	-	**41.95** → **54.70**
Uric Acid	5.17		22.41		-	5.17 → 22.41
LDL	**101.47**	**H**	**94.12**	**H**		
PSS / PSD	13.73 / 23.85		20.12 / 25.59			

Panel/Subset Comparison Report

Frank — **Foundational Wellness Profile Date: 5/25/2004**

Male / Age: 60

Kidney Function	7/15/2003		5/25/2004		+/-
Albumin	-5.00		16.67		-
B.U.N.	7.14		-11.90		
B.U.N./Creatinine Ratio	-7.02		**-28.95**	**L**	-
Chloride	11.54		19.23		-
CO2	**-25.00**	**L**	**-25.00**	**L**	
Creatinine	16.67		**30.00**	**H**	-
Glucose	**52.27**	**H**	**61.76**	**H**	-
Potassium	0.00		5.00		
Protein, Total	-18.00		-10.00		+
Sodium	-8.33		3.85		
PSS / PSD	2.43 / 15.10		6.07 / 21.24		

Lipid	7/15/2003		5/25/2004		+/-
Cholesterol	**53.00**	**H**	**54.00**	**H**	
Triglycerides	**41.95**	**H**	**54.70**	**H**	-
HDL-Cholesterol	-3.49		1.16		
LDL	**101.47**	**H**	**94.12**	**H**	
PSS / PSD	32.15 / 33.32		34.00 / 34.00		

Liver Function	7/15/2003		5/25/2004		+/-
Albumin	-5.00		16.67		-
Alkaline Phosphatase	-22.00		-15.60		
Bilirubin, Total	-22.73		-4.55		+
Cholesterol	**53.00**	**H**	**54.00**	**H**	
GGT	-14.62		-3.85		+
Protein, Total	-18.00		-10.00		+
sGOT	-10.00		5.00		
sGPT	-17.50		0.00		+
PSS / PSD	-7.11 / 20.36		5.21 / 13.71		

Nitrogen	7/15/2003		5/25/2004		+/-
B.U.N.	7.14		-11.90		
B.U.N./Creatinine Ratio	-7.02		**-28.95**	**L**	-
Creatinine	16.67		**30.00**	**H**	-
Uric Acid	5.17		22.41		-
PSS / PSD	5.49 / 9.00		2.89 / 23.32		

Protein	7/15/2003		5/25/2004		+/-
A/G Ratio	6.41		-7.69		
Albumin	-5.00		16.67		-
Globulin	-18.75		-13.33		
Protein, Total	-18.00		-10.00		+
Protein/Globulin Ratio	23.33		9.23		+
PSS / PSD	-2.40 / 14.30		-1.03 / 11.38		

Panel/Subset Comparison Report

Frank
Male / Age: 60

Foundational Wellness Profile Date: 5/25/2004

Pulmonary Function	7/15/2003		5/25/2004		+/-
Anion Gap	**28.33**	**H**	**38.33**	**H**	-
Calcium	**-36.96**	**L**	**-45.24**	**L**	-
CO2	**-25.00**	**L**	**-25.00**	**L**	
LDH	-4.38		-14.00		-
Potassium	0.00		5.00		
sGOT	-10.00		5.00		
Sodium	-8.33		3.85		
PSS / PSD	-8.05 / 16.14		-4.58 / 19.49		

Ratios	7/15/2003		5/25/2004		+/-
A/G Ratio	6.41		-7.69		
B.U.N./Creatinine Ratio	-7.02		**-28.95**	**L**	-
Calcium/Phosphorus Ratio	-21.18		-2.58		+
Sodium/Potassium Ratio	-1.52		-9.42		-
Protein/Globulin Ratio	23.33		9.23		+
PSS / PSD	0.01 / 9.91		-6.57 / 9.65		

Thyroid	7/15/2003		5/25/2004		+/-
Thyroxine (T4)	-16.25		**-26.00**	**L**	-
T-3 Uptake	12.67		**43.33**	**H**	-
Free T4 Index (T7)	-18.75		-17.57		
Ultra-Sensitive TSH	2.58		1.38		
PSS / PSD	-4.94 / 12.56		0.29 / 22.07		

Amino Acid Catabolism	7/15/2003		5/25/2004		+/-
a-Ketoisovalerate	**25.00**	**H**	12.50		+
a-Ketoisocaproate	-10.00		10.00		
a-Keto-b-methylvalerate	-14.29		0.00		+
PSS / PSD	0.24 / 16.43		7.50 / 7.50		

B-Complex Markers	7/15/2003		5/25/2004		+/-
b-Hydroxyisovalerate	6.36		-10.00		
a-Ketoisovalerate	**25.00**	**H**	12.50		+
a-Ketoisocaproate	-10.00		10.00		
a-Keto-b-methylvalerate	-14.29		0.00		+
Methylmalonate	-6.25		**-29.17**	**L**	-
PSS / PSD	0.17 / 12.38		-3.33 / 12.33		

CAC Cycle Ratios	7/15/2003		5/25/2004		+/-
CA Cycle Entry	**237.22**	**H**	**209.72**	**H**	+
CA Cycle Phase 1	0.19		-2.66		
CA Cycle Phase 2	**-40.05**	**L**	**-31.01**	**L**	+
CA Cycle Phase 3	-16.50		-16.22		
CA Cycle Phase 4	**-40.69**	**L**	**-45.95**	**L**	
CA Cycle Phase 5	**-35.75**	**L**	**-39.71**	**L**	
CA Cycle Phase 6	-16.67		**121.43**	**H**	-
CA Cycle Return	**46.09**	**H**	**-43.19**	**L**	
PSS / PSD	16.73 / 54.15		19.05 / 63.74		

Panel/Subset Comparison Report

Frank — **Foundational Wellness Profile Date: 5/25/2004**

Male / Age: 60

Carbohydrate Metabolism	7/15/2003		5/25/2004		+/-
Lactate	**-57.78**	**L**	-18.89		+
Pyruvate	3.57		-7.14		
a-Hydroxybutyrate	3.64		21.82		-
b-Hydroxybutyrate	-21.11		**83.33**	**H**	-
PSS / PSD	-17.92 / 21.52		19.78 / 32.80		

Citric Acid Cycle	7/15/2003		5/25/2004		+/-
Citrate	4.72		-18.16		-
cis-Aconitate	**27.94**	**H**	-7.35		+
Isocitrate	**-48.33**	**L**	-16.67		+
a-Ketoglutarate	-2.50		22.14		-
Succinate	**-30.53**	**L**	**-41.58**	**L**	-
Fumarate	**30.00**	**H**	20.00		+
Malate	-21.43		**78.57**	**H**	-
Hydroxymethylglutarate	-3.23		**27.42**	**H**	-
PSS / PSD	-5.42 / 21.08		8.05 / 28.99		

Intestinal Dysbiosis	7/15/2003		5/25/2004		+/-
Hippurate	**-43.93**	**L**	**25.00**	**H**	+
Benzoate	**4298.82**	**H**	-11.76		+
p-Hydroxybenzoate	**68.18**	**H**	**-40.91**	**L**	+
p-Hydroxyphenyllactate	17.12		23.97		
Phenylacetate	**-28.57**	**L**	-21.43		
Phenylpropionate	-7.14		-7.14		
Tricarballylate	**26.92**	**H**	3.85		+
DHPP	-12.50		**25.00**	**H**	-
Citramalate	**30.00**	**H**	1.67		+
Tartarate	17.27		**160.00**	**H**	-
Indican	-20.93		6.98		+
PSS / PSD	334.25 / 351.65		12.71 / 25.21		

Lipid Metabolism	7/15/2003		5/25/2004		+/-
Adipate	**26.19**	**H**	8.33		+
Suberate	**31.48**	**H**	-12.96		+
Ethylmalonate	4.17		1.67		
PSS / PSD	20.61 / 20.61		-0.99 / 7.65		

Liver Detox Indicators	7/15/2003		5/25/2004		+/-
2-Methylhippurate	16.22		16.22		
Glucarate	**-47.99**	**L**	**-34.56**	**L**	+
P-Hydroxyphenylacetate	-14.44		-16.67		
Orotate	**31.82**	**H**	**31.82**	**H**	
Pyroglutamate	**30.00**	**H**	18.12		+
Sulfate	**50.00**	**H**	**-60.00**	**L**	-
PSS / PSD	10.93 / 31.74		-7.51 / 29.56		

Frank **Foundational Wellness Profile Date: 5/25/2004**

Male / Age: 60

Neurotransmitters	7/15/2003		5/25/2004		+/-	
Vanillylmandelate	-16.00		**-28.00**	**L**	**-**	**-28.00** -16.00
Homovanillate	**-33.64**	**L**	-24.55		**+**	**-33.64** -24.55
5-Hydroxyindoleacetate	-7.38		**-48.36**	**L**	**-**	**-48.36** -7.38
Kynurenate	**-32.50**	**L**	-5.00		**+**	**-32.50** -5.00
Quinolinate	**-50.00**	**L**	-12.86		**+**	**-50.00** -12.86
PSS / PSD	-27.90 / 27.90		-23.75 / 23.75			