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**Frank**

Test date: 12/6/2004  
(accession: A0412090018)

Next Test Due: 6/17/2005

# ***CellMate™ Foundational Wellness Profile Report***

## ***Practitioner***

*Printed on Tuesday, February 15, 2005 for:*

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## Basic Status High/Low - Plasma Amino Acid on 12/6/2004

**Frank**

Male / Age: 60

Client ID:548664859 (9732)

**Foundational Wellness Profile Date: 12/6/2004**

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

### Low Results

-80	-60	-40	-20	0		% Status	Result	Low	High
		█	█	█	Glycine - P	-52.22 L	220.00	225.00	450.00
		█	█	█	Ornithine - P	-48.00 L	53.00	50.00	200.00
		█	█	█	Aspartic Acid - P	-45.83 L	7.00	6.00	30.00
		█	█	█	Serine - P	-45.83 L	95.00	90.00	210.00
		█	█	█	Taurine - P	-44.00 L	62.00	50.00	250.00
		█	█	█	Proline - P	-42.96 L	149.00	130.00	400.00
		█	█	█	Valine - P	-37.60 L	201.00	170.00	420.00
		█	█	█	Citrulline - P	-37.27 L	22.00	15.00	70.00
		█	█	█	Phenylalanine - P	-33.16 L	61.00	45.00	140.00
		█	█	█	Glutamine - P	-31.56 L	683.00	600.00	1050.00
		█	█	█	Histidine - P	-31.43 L	83.00	70.00	140.00
		█	█	█	Cystine - P	-31.25 L	25.00	10.00	90.00
		█	█	█	Asparagine - P	-31.18 L	61.00	45.00	130.00
		█	█	█	Isoleucine - P	-30.91 L	71.00	50.00	160.00
		█	█	█	Threonine - P	-29.33 L	131.00	100.00	250.00

-25%

### High Results

-25	0	25	50	75		% Status	Result	Low	High
		█	█	█	Ethanolamine - P	62.50 H	9.00	0.00	8.00
		█	█	█	Anserine - P	50.00 H	1.00	0.00	1.00
		█	█	█	Carnosine - P	50.00 H	1.00	0.00	1.00
		█	█	█	Cystathionine - P	50.00 H	4.00	0.00	4.00
		█	█	█	Homocystine - P	50.00 H	1.00	0.00	1.00
		█	█	█	Hydroxylysine - P	50.00 H	1.00	0.00	1.00
		█	█	█	Collagen Related AA	42.67 H	149.00	10.00	160.00
		█	█	█	1-Methylhistidine - P	35.00 H	17.00	0.00	20.00
		█	█	█	3-Methylhistidine - P	30.00 H	4.00	0.00	5.00

-25%

25%

## Basic Status High/Low - Blood Test on 12/17/2004

**Frank**

**Foundational Wellness Profile Date: 12/6/2004**

Male / Age: 60

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

### Low Results

-40	-30	-20	-10	0		% Status	Result	Low	High
					sGOT	-34.85 L	17.00	12.00	45.00
					sGPT	-32.05 L	14.00	7.00	46.00
					LDH	-32.00 L	127.00	100.00	250.00
					Anion Gap	-29.00 L	10.10	8.00	18.00
					Alkaline Phosphatase	-27.04 L	56.00	25.00	160.00
					Calcium	-26.19 L	9.00	8.50	10.60

-25%

### High Results

-50	0	50	100	150		% Status	Result	Low	High
					Ultra-Sensitive TSH	120.00 H	3.48	1.10	2.50
					LDL	72.06 H	145.00	62.00	130.00
					Iron, Total	48.26 H	153.00	40.00	155.00
					Triglycerides	36.24 H	173.00	10.00	199.00
					Albumin	34.62 H	4.60	3.50	4.80
					Eosinophil Count	33.75 H	335.00	0.00	400.00
					T-3 Uptake	30.00 H	36.00	24.00	39.00
					CO2	26.92 H	30.00	20.00	33.00
					MCH	26.73 H	32.37	27.00	34.00

-25%

25%

## Basic Status High/Low - Urine Organic Acid on 12/6/2004

**Frank**

Male / Age: 60

**Foundational Wellness Profile Date: 12/6/2004**

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

### Low Results

-100	-75	-50	-25	0		% Status		Result	Low	High
					Sulfate	-81.67	L	123.00	180.00	360.00
					cis-Aconitate	-64.71	L	40.00	50.00	118.00
					Glucarate	-49.19	L	1.20	0.00	149.00
					a-Hydroxybutyrate	-48.18	L	0.20	0.00	11.00
					D-Arabinitol	-47.95	L	1.50	0.00	73.00
					Lactate	-45.56	L	2.40	2.00	11.00
					Isocitrate	-43.33	L	44.00	40.00	100.00
					8-Hydroxy-2-deoxyguan	-42.73	L	0.01	0.00	0.11
					Succinate	-41.05	L	3.70	2.00	21.00
					p-Hydroxybenzoate	-40.91	L	0.10	0.00	1.10
					Adipate	-40.48	L	0.80	0.00	8.40
					DHPP	-37.50	L	0.10	0.00	0.80
					Ethylmalonate	-35.83	L	1.70	0.00	12.00
					P-Hydroxyphenylacetate	-34.44	L	7.00	0.00	45.00
					D-Lactate	-34.21	L	0.30	0.00	1.90
					Kynurenate	-32.50	L	0.70	0.00	4.00
					b-Hydroxybutyrate	-32.22	L	0.80	0.00	4.50
					Methylmalonate	-31.25	L	0.90	0.00	4.80
					Vanilylmandelate	-30.00	L	1.80	0.80	5.80
					Hydroxymethylglutarate	-29.03	L	3.30	2.00	8.20

-25%

### High Results

-50	0	50	100	150		% Status		Result	Low	High
					Phenylpropionate	3121.43	H	2.22	0.00	0.07
					5-Hydroxyindoleacetate	1202.46	H	77.90	1.50	7.60
					CA Cycle Entry	109.17	H	191.00	0.00	120.00
					Formiminoglutamic Acid	106.25	H	0.25	0.00	0.16
					2-Methylhippurate	85.14	H	0.10	0.00	0.07
					Quinolinate	75.71	H	4.40	0.00	3.50
					Pyroglutamate	56.25	H	17.00	0.00	16.00

-25%

25%

## Basic Status Alphabetic - Plasma Amino Acid on 12/6/2004

**Frank**

Male / Age: 60

**Foundational Wellness Profile Date: 12/6/2004**

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

-100	-50	0	50	100		% Status		Result	Low	High
						<b>35.00</b>	<b>H</b>	<b>17.00</b>	0.00	20.00
						<b>30.00</b>	<b>H</b>	<b>4.00</b>	0.00	5.00
						12.50		2.50	0.00	4.00
						-10.00		22.00	10.00	40.00
						12.00		467.00	250.00	600.00
						<b>50.00</b>	<b>H</b>	<b>1.00</b>	0.00	1.00
						-6.36		98.00	50.00	160.00
						<b>-31.18</b>	<b>L</b>	<b>61.00</b>	45.00	130.00
						<b>-45.83</b>	<b>L</b>	<b>7.00</b>	6.00	30.00
						-10.00		2.00	0.00	5.00
						0.00		1.00	0.00	2.00
						<b>50.00</b>	<b>H</b>	<b>1.00</b>	0.00	1.00
						<b>-37.27</b>	<b>L</b>	<b>22.00</b>	15.00	70.00
						<b>42.67</b>	<b>H</b>	<b>149.00</b>	10.00	160.00
						<b>50.00</b>	<b>H</b>	<b>4.00</b>	0.00	4.00
						<b>-31.25</b>	<b>L</b>	<b>25.00</b>	10.00	90.00
						<b>62.50</b>	<b>H</b>	<b>9.00</b>	0.00	8.00
						-10.00		2.00	0.00	5.00
						-21.43		75.00	45.00	150.00
						<b>-31.56</b>	<b>L</b>	<b>683.00</b>	600.00	1050.00
						<b>-52.22</b>	<b>L</b>	<b>220.00</b>	225.00	450.00
						4.39		2.32	1.50	3.00
						<b>-31.43</b>	<b>L</b>	<b>83.00</b>	70.00	140.00
						<b>50.00</b>	<b>H</b>	<b>1.00</b>	0.00	1.00
						<b>50.00</b>	<b>H</b>	<b>1.00</b>	0.00	1.00
						-16.67		10.00	0.00	30.00
						<b>-30.91</b>	<b>L</b>	<b>71.00</b>	50.00	160.00
						-19.09		124.00	90.00	200.00
						-19.33		196.00	150.00	300.00
						-10.00		35.00	25.00	50.00
						<b>-48.00</b>	<b>L</b>	<b>53.00</b>	50.00	200.00
						<b>-33.16</b>	<b>L</b>	<b>61.00</b>	45.00	140.00
						-18.00		0.88	0.50	1.70
						-6.67		13.00	0.00	30.00
						8.33		7.00	0.00	12.00
						<b>-42.96</b>	<b>L</b>	<b>149.00</b>	130.00	400.00
						-10.00		2.00	0.00	5.00
						<b>-45.83</b>	<b>L</b>	<b>95.00</b>	90.00	210.00
						<b>-44.00</b>	<b>L</b>	<b>62.00</b>	50.00	250.00
						<b>-29.33</b>	<b>L</b>	<b>131.00</b>	100.00	250.00
						13.33		54.00	35.00	65.00
						-22.86		69.00	50.00	120.00
						<b>-37.60</b>	<b>L</b>	<b>201.00</b>	170.00	420.00
		-25%	25%			<b>Total Status Deviation</b>		<b>28.67</b>		
						<b>Total Status Skew</b>		<b>-8.20</b>		

## Basic Status Alphabetic - Blood Test on 12/17/2004

**Frank**

Male / Age: 60

**Foundational Wellness Profile Date: 12/6/2004**

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

-100	-50	0	50	100	% Status	Result	Low	High
					-2.20	1.77	1.10	2.50
					<b>34.62 H</b>	<b>4.60</b>	3.50	4.80
					<b>-27.04 L</b>	<b>56.00</b>	25.00	160.00
					<b>-29.00 L</b>	<b>10.10</b>	8.00	18.00
					2.38	16.00	5.00	26.00
					-5.02	14.55	6.00	25.00
					-16.50	67.00	0.00	200.00
					0.00	1.00	0.00	2.00
					13.64	0.80	0.10	1.20
					<b>-26.19 L</b>	<b>9.00</b>	8.50	10.60
					10.32	2.90	2.30	3.30
					3.85	103.00	96.00	109.00
					20.83	225.00	140.00	260.00
					<b>26.92 H</b>	<b>30.00</b>	20.00	33.00
					-7.14	1.10	0.80	1.50
					<b>33.75 H</b>	<b>335.00</b>	0.00	400.00
					21.43	5.00	0.00	7.00
					-17.57	2.40	1.20	4.90
					1.52	24.00	7.00	40.00
					-13.33	2.60	1.50	4.50
					22.73	97.00	65.00	109.00
					-22.50	45.00	34.00	74.00
					15.00	45.10	36.00	50.00
					21.11	15.70	12.50	17.00
					<b>48.26 H</b>	<b>153.00</b>	40.00	155.00
					<b>-32.00 L</b>	<b>127.00</b>	100.00	250.00
					<b>72.06 H</b>	<b>145.00</b>	62.00	130.00
					-15.53	2010.00	700.00	4500.00
					0.00	30.00	14.00	46.00
					<b>26.73 H</b>	<b>32.37</b>	27.00	34.00
					20.29	34.81	32.00	36.00
					22.16	92.99	80.00	98.00
					5.89	603.00	100.00	1000.00
					5.56	9.00	4.00	13.00
					-18.58	3685.00	1800.00	7800.00
					-5.88	55.00	40.00	74.00
					-20.00	3.10	2.50	4.50
					-20.00	4.10	3.50	5.50
					-2.00	7.20	6.00	8.50
					0.00	4.85	4.10	5.60
					<b>-34.85 L</b>	<b>17.00</b>	12.00	45.00
					<b>-32.05 L</b>	<b>14.00</b>	7.00	46.00
					-19.23	139.00	135.00	148.00
					<b>30.00 H</b>	<b>36.00</b>	24.00	39.00
					-19.33	6.80	4.50	12.00
					<b>36.24 H</b>	<b>173.00</b>	10.00	199.00
					<b>120.00 H</b>	<b>3.48</b>	1.10	2.50
					-3.45	5.10	2.40	8.20
					-13.33	6.70	4.50	10.50
					<b>20.68</b>			
					<b>4.57</b>			



## Client Summary Review

Foundational Wellness Profile Date: 12/6/2004

Frank

Male / Age: 60

### Nutritional Support

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

- |  |  |
|--|--|
| <input type="checkbox"/> 1-5-HTP<br>3x daily 100 mg                          | <input type="checkbox"/> 1-BCAA's<br>2x daily 500 mg                         |
| <input type="checkbox"/> 1-CAC Entry Protocol<br>See Nutrition Detail        | <input type="checkbox"/> 1-Detoxification Protocol<br>See Nutrition Detail   |
| <input type="checkbox"/> 1-Folic Acid<br>2x daily 800 mcg                    | <input type="checkbox"/> 1-L-Carnitine<br>2x daily 500 mg                    |
| <input type="checkbox"/> 1-Oral Electrolyte - Standard Formula<br>2x daily   | <input type="checkbox"/> 1-Pyridoxal-5-Phosphate<br>2x daily 20 mg           |
| <input type="checkbox"/> 1-Tyrosine<br>2x daily 500 mg                       | <input type="checkbox"/> 1-Yeast Reduction Protocol2<br>See Nutrition Detail |
| <input type="checkbox"/> 2-Betaine HCL<br>2 tablets at mealtime              | <input type="checkbox"/> 2-Glutathione (reduced)<br>2x daily 250 mg          |
| <input type="checkbox"/> 2-Magnesium Citrate or Glycinate<br>2x daily 150 mg | <input type="checkbox"/> 2-Vitamin E & Beta-carotene<br>1x daily see details |
| <input type="checkbox"/> 2-Zinc Citrate/Sulfate<br>2x daily 25 mg            | <input type="checkbox"/> 2-Zinc Sulfate/Citrate<br>2x daily 50 mg            |
| <input type="checkbox"/> H - Garlic<br>1 - 3 times daily                     | <input type="checkbox"/> Well Balanced Diet                                  |

### Nutritional Supplements to AVOID

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

Copper

Iron Supplements

MCT Oil

### Food Recommendations

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

Artichoke	Banana	Blueberries	Bok Choy Cabbage
Boysenberries	Butter Beans	Clams	Eggplant
Flounder	Goose	Grapefruit	Gruyere Cheese
Guava	Haddock	Halibut	Lamb
Macadamia Nuts	Mackerel	Mozarella Cheese	Mushrooms
Peanuts	Plantains	Potatoes	Prawns
Pumpkin	Rabbit	Salmon	Sardines
Shad	Snapper	Sole	Strawberries
Sturgeon	Sweet Potato	Turnip Greens	Veal
Venison	Wild Rice	Yams	

### Foods to AVOID

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

Beer

Hydrogenated Fats

Black Beans

Liver

Carbonated Beverages

Cider

Frank

Male / Age: 60

**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	271.59%	246.59%
Intestinal Dysbiosis	253.00%	233.36%
Liver Detox Indicators	53.39%	-1.71%
Thyroid	46.73%	28.27%
CAC Cycle Ratios	42.63%	18.61%
Muscle Metabolites	41.25%	41.25%
Carbohydrate Metabolism	36.85%	-26.13%
Neuroendocrine Met.	34.98%	-34.98%
Hepatic Metabolism	32.69%	-0.69%
Gluconeogen	30.54%	-20.41%
Citric Acid Cycle	30.35%	-30.35%
Connective Tissue	29.70%	-9.70%
CNS Metabolism	29.69%	-14.39%
Immune Metabolites	28.81%	-28.81%
Ammonia/Energy	28.11%	-24.61%
Inflammatory Process	27.13%	-1.18%
Pulmonary Function	26.88%	-19.19%
Gastrointest. Function	25.97%	10.80%
Fat Metabolism	25.65%	-25.65%
Lipid	25.27%	17.77%

**Lab Reported out-of-range Values**

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

**Phenylpropionate (3121.43%)**

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

**5-Hydroxyindoleacetate (1202.46%)**

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:**

Prozac, Reserpine

**Bacteria2 ( 778.57%)**

A high reading is consistent with bacteria in the gut acting upon the amino acid phenylalanine. Probiotics and/or careful administration of antibiotics may be helpful in bringing down this ratio.

**Ultra-Sensitive TSH ( 120.00%)**

TSH, produced by the anterior pituitary gland, causes the release and distribution of stored thyroid hormones. When T4 and T3 are too high, TSH secretion decreases. When T4 and T3 are low, TSH secretion increases. Increased TSH levels are seen in primary hypothyroidism, thyrotropin producing tumors, and thyrotoxicosis.

**Drugs which may have an adverse affect:**

Rifampin, Valproic Acid

**CA Cycle Entry ( 109.17%)**

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

**Formiminoglutamic Acid ( 106.25%)**

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

Frank

Male / Age: 60

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**CA Cycle Phase 6 ( 87.93%)**

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.

**2-Methylhippurate ( 85.14%)**

This organic acid is an indication of exposure to or xylene or toluene. A comprehensive detoxification program should be undertaken to help the body excrete these petrochemicals. The use of antioxidants and glycine are recommended.

**Sulfate (-81.67%)**

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

**Quinolate ( 75.71%)**

A high reading of quinolate is indicative of oxidative stress that may be favorably resolved by the use of a broad spectrum of antioxidants. If the markers for phthalates are also elevated, it is important to avoid the plasticizer in your environment and undergo a detoxification program.

**LDL ( 72.06%)**

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 atherosclerosis. 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.

**cis-Aconitate (-64.71%)**

No information available.

**Ethanolamine - P ( 62.50%)**

Poor serine conversion, possible low acetylcholine synthesis.

**Pyroglutamate ( 56.25%)**

A high level may be due to glutathione depletion as this organic acid is formed in the kidney from the amino acid glutathione.

**Glycine - P (-52.22%)**

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

**Anserine - P ( 50.00%)**

May be due to high dietary intake of poultry or zinc deficiency.

**Bacteria Markers (-50.00%)**

A low reading is consistent 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.

**Cystathionine - P ( 50.00%)**

May be due to a functional B6 deficiency. May also be indicative of an increased need for antioxidants. Bleie O., et al., Changes in basal and postmethionine load concentrations of total homocysteine and cystathionine after B vitamin intervention. Am J Clin Nutr, 80(3), 641-8, 2004. Zhang J., et al., Effect of cystathionine ketimine on the stimulus coupled responses of neutrophils and their modulation by various protein kinase inhibitors. Biochem Biophys Res Commun, 218(1), 371-6, 1996

Frank

Male / Age: 60

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**Homocystine - P ( 50.00%)**

This may be indicative of a higher risk of coronary heart disease (atherosclerosis), neurological, ocular, or musculo-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 TRH stimulation test if clinically indicated**

*Rationale: % Status of Ultra-Sensitive TSH is > 50%*

**Consider ordering prostate specific antigen (PSA)**

*Rationale: Age is  $\geq$  40*

*Sex is Male*

**Review patient's Zinc status**

*Rationale: % Status of Alkaline Phosphatase is < -25%*

## Nutrition - Detail

Foundational Wellness Profile Date: 12/6/2004

**Frank**

Male / Age: 60

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 a qualified health care professional.

### 1-5-HTP 3x daily 100 mg

5-HTP

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

Decreased

### Rationale

Normal

Increased

5-Hydroxyindoleacetate

### 1-BCAA's 2x daily 500 mg

BRANCHED CHAIN AMINO ACIDS

Depressed succinate levels is suggestive of a deficiency of branched chain amino acids.

An addition of 500 mg of a combination of Leucine, Isoleucine and Valine, twice a day is recommended.

Decreased

Normal

Increased

Succinate

### 1-CAC Entry Protocol See Nutrition Detail

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 between 6-18

B-Complex - 1x daily

CoEnzyme Q10 - 25 mg daily

Vitamin C - 500 mg daily

Amino Acid Complex - 5 grams daily

For children under the age of 6:

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

Vitamin C - 125 mg 2x daily

CoEnzyme Q10 - 12.5 mg daily

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

Decreased

Normal

Increased

CA Cycle Entry

### 1-Detoxification Protocol See Nutrition Detail

DETOXIFICATION PROTOCOL

Due to the elevated level of 2-Methylhippurate, it is important that you avoid xylene, a compound found in fossil fuels and as a solvent as well as toluene and styrene. A comprehensive detoxification protocol should include at least 250 mg of glycine daily along with a balanced amino acid complex and a broad spectrum antioxidant formula with Vitamin C and CoEnzyme Q10.

Adults:

Glycine - 500 mg 2x daily

Amino Acid Complex - 5 grams 2x daily

Broad Spectrum Antioxidant - 2x daily

Children:

Glycine - 250 mg 2x daily

Amino Acid Complex 2.5 grams 2x daily

Broad Spectrum Antioxidant - 1x daily

Decreased

Normal

Increased

Hippurate

2-Methylhippurate

### 1-Folic Acid 2x daily 800 mcg

FOLIC ACID

Adult: 800 mcg 2x daily Children 800 mcg 1x daily

A folic acid deficiency may lead to a buildup of this organic acid which is created through the metabolism of histidine.

Decreased

Normal

Increased

Formiminoglutamic Acid

## Nutrition - Detail

Foundational Wellness Profile Date: 12/6/2004

**Frank**

Male / Age: 60

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### 1-L-Carnitine 2x daily 500 mg

L-CARNITINE

Carnitine is sometimes considered a non-essential amino acid which is synthesized in the liver and kidneys from lysine, methionine and other nutrients. It is critical in the metabolism of fat and transport of long-chain essential fatty acids as well as being cardiac protective.

Decreased

Fatty Acid Metabolism

### Rationale

Normal

Increased

### 1-Oral Electrolyte - Standard Formula 2x daily

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.

Decreased

Normal

Increased

Potassium  
Sodium

CO2

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

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.

Decreased

Normal

Increased

Cystathionine - P

### 1-Tyrosine 2x daily 500 mg

TYROSINE

An amino acid which is essential to the synthesis of protein, catecholamines, melanin, and thyroid hormones. Vitamin C and folic acid are essential to its metabolism. The formation of thyroid hormone is dependent upon the absorption and sequestering of iodine which then attaches to tyrosine to form thyroxine.

Decreased

Normal

Increased

Ultra-Sensitive TSH

### 1-Yeast Reduction Protocol2 See Nutrition Detail

YEAST REDUCTION PROTOCOL2

Because of the relative increase in the markers for yeast and fungi (Benzoate, Hippurate, Phenylacetate and Phenylpropionate) it may be helpful to begin a yeast reduction protocol. Avoiding refined carbohydrates such as sugar, alcohol and other yeast-containing products is recommended. The introduction of probiotics as well as glycine and pantothenic acid may be helpful balancing this ratio.

Probiotics - 2-3 times daily if D-Lactate is normal or low

Pantothenic acid - 100 mg 3 times daily

Glycine - 500 mg 3 times daily

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

Decreased

Normal

Increased

Bacteria2

### 2-Betaine HCL 2 tablets at mealtime

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.

Decreased

Proline - P

Normal

Hydroxyproline - P

Increased

3-Methylhistidine - P

### 2-Glutathione (reduced) 2x daily 250 mg

GLUTATHIONE

Glutathione is a tripeptide made in the body from cysteine, glutamic acid and glycine. An accumulation of Pyroglutamate is indicative of glutathione depletion.

Decreased

Normal

Increased

Pyroglutamate

## Nutrition - Detail

Foundational Wellness Profile Date: 12/6/2004

**Frank**

Male / Age: 60

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**2-Magnesium Citrate or Glycinate** 2x daily 150 mg  
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

Decreased

**Rationale**

Normal

Increased

Ethanolamine - P

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

VITAMIN E  
800 IU - Adult, 400 IU - Children

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

BETA-CAROTENE  
25,000 IU - Adult, 12,500 - Children

Beta-carotene is involved in the growth and repair of tissue and helps maintain healthy skin. It is essential in the maintenance of eyesight, building of bones, teeth and blood. Do not take if pregnant.

Decreased

Normal

Increased

1-Methylhistidine - P

**2-Zinc Citrate/Sulfate** 2x daily 25 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

Alkaline Phosphatase

**2-Zinc Sulfate/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

Anserine - P  
1-Methylhistidine - P

**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

Cholesterol

LDL

**Well Balanced Diet**

WELL BALANCED DIET  
It is important to make sure that a well balanced diet utilizing fresh vegetables, meats, fish, and complex carbohydrates (whole grains) is part of your daily regime.

Decreased

Normal

Increased

Cholesterol  
Glucose  
Protein, Total

### AVOID THE FOLLOWING SUPPLEMENTS

**AVOID Copper**

EXCESSIVE COPPER (Cu)  
Primarily involved in oxidation - component of various proteins and enzymes. Regulates cholesterol metabolism/heme/immune function/myelin/catecholamine/temperature/bone mineralization and cross linking of collagen and elastin.

Decreased

Normal

Increased

Iron, Total

Avoid copper in amounts over 2 mg daily unless taken as part of a multi-vitamin. If Total Iron level is greater than 50% over the mean, avoid all sources of copper unless otherwise tested.

Frank

Male / Age: 60

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 a qualified health care professional.

**AVOID THE FOLLOWING SUPPLEMENTS**

**Rationale**

**AVOID Iron Supplements**

IRON (Fe)

Vital component in synthesis of hemoglobin, myoglobin and catecholamines. Involved in cell respiration, peroxide scavenging, electron transfer and systemic hormone action.

Decreased

Normal

Increased

Iron, Total

**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

## Drug Interactions

Frank

Foundational Wellness Profile Date: 12/6/2004

Male / Age: 60

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

Acetaminophen	Acetazolamide	Albuterol	Allopurinol(2)
Aspirin(2)	Carbamazepine(2)	Clofibrate(2)	Cortisol
Cortisone	Fluorides(5)	Furosemide(3)	Gentamicin(2)
Hydrocortisone	Hydroxyurea	Imipramine	Insulin
Itraconazole	Ketocanazole	Levothyroxine	Lovastatin
MAO Inhibitors	Methimazole	Methotrexate(3)	Methyldopa(2)
Miconazole	Paramethadione	Phenobarbital(2)	Phenytoin
Polythiazide(2)	Prednisone(3)	Progesterone(2)	Progestins(2)
Propranolol	Prozac	Reserpine(2)	Rifampin
Salicylates	Salicylates	Steroids	Tamoxifen(3)
Tetracycline	Trimethadione	Tromethamine	Valproic Acid
Viomycin(2)			

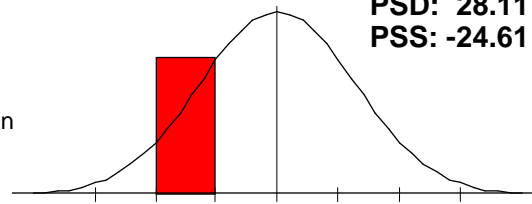
Frank

Male / Age: 60

**Ammonia/Energy**

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

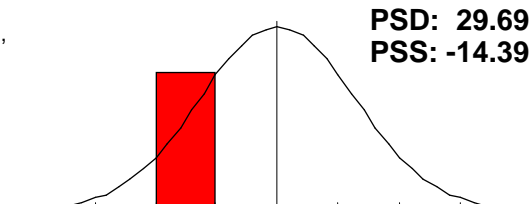
A panel profile such as this may be indicative of inadequate protein intake, poor absorption or poor quality protein intake.



**CNS Metabolism**

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

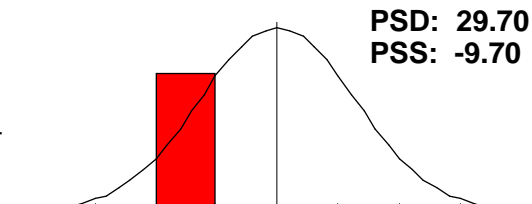
The panel profile seen here may be indicative of poor central nervous system functioning including memory loss, fatigue, poor concentration.



**Connective Tissue**

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

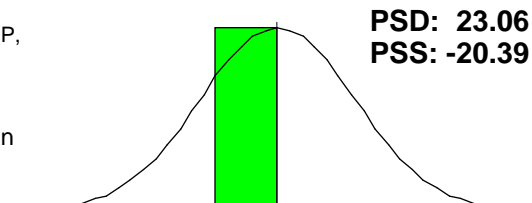
A profile such as this may be indicative of poor collagen and other tissue formation.



**Essential Amino Acid**

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

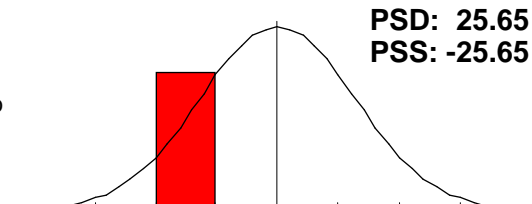
This panel profile is suggestive but not definitive of a chemistry with adequate supplies of the essential amino acids, those that can only come from either dietary or supplemental sources. These amino acids cannot be synthesized in the human body.



**Fat Metabolism**

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

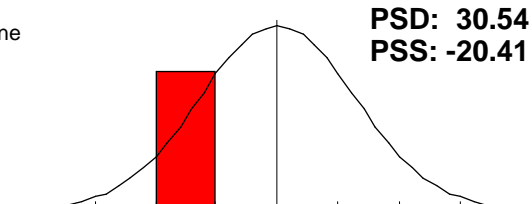
A panel profile such as this may indicate an inability of the body to properly metabolize dietary fats. Check for dysbiosis, or try supplementation with lipase digestive enzymes as well as broad spectrum amino acids.



**Gluconeogen**

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

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



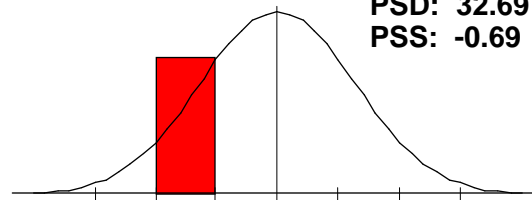
Frank

Male / Age: 60

**Hepatic Metabolism**

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

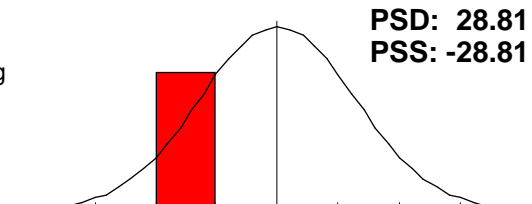
A panel profile such as this may be indicative of an underfunctioning liver or poor dietary protein intake.



**Immune Metabolites**

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

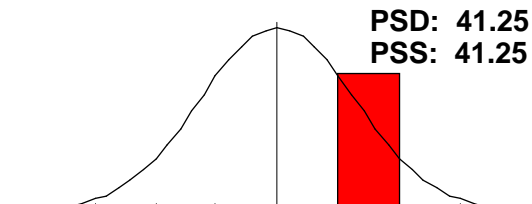
A panel profile such as this may be indicative of a poor functioning immune system or low dietary intake of protein.



**Muscle Metabolites**

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

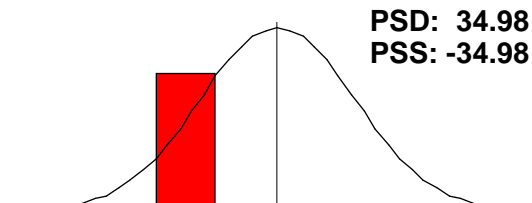
This panel profile may be indicative of abnormal protein metabolism especially if 1-methylhistidine is elevated.



**Neuroendocrine Met.**

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

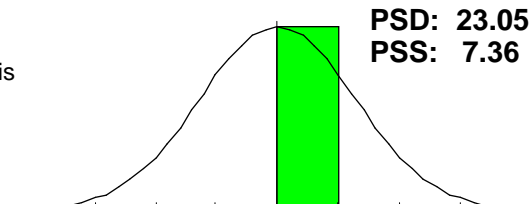
This panel profile may be indicative of an underfunctioning endocrine system or poor dietary intake of protein.



**Adrenal Function**

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

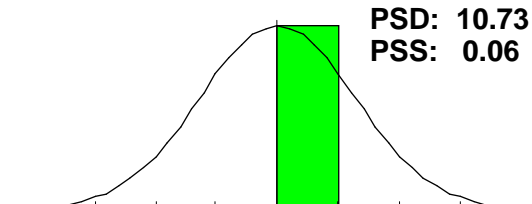
This panel is meant to assess adrenal function. A deficiency in this panel may indicate adrenal stress. The deviation was below 25% so no abnormalities were found.



**Allergy**

Eosinophils, Globulin, Lymphocytes, Monocytes, W.B.C..

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.



## Panel/Subset Report

Foundational Wellness Profile Date: 12/6/2004

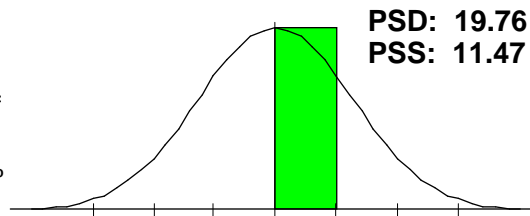
Frank

Male / Age: 60

### Anti Oxidant Status

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

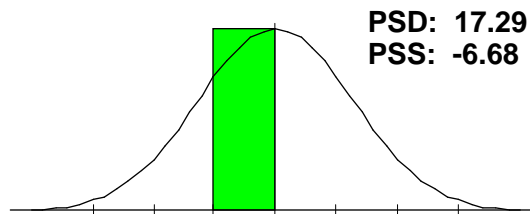
The elements in this panel help represent the antioxidant status of the individual. Excesses or deficiencies in this panel may indicate the need for additional antioxidants. The deviation was below 25% so no abnormalities were found.



### Athletic Potential

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

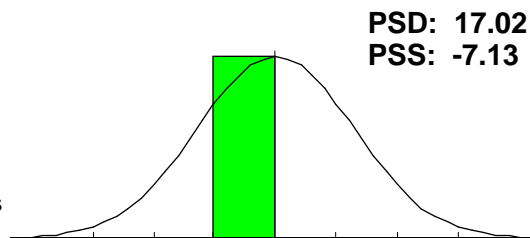
This panel is used to help assess athletic potential. Keeping this panel in a normal range may be helpful in improving athletic performance and reducing the risk of injury. The deviation was below 25% so no abnormalities were found.



### Bone/Joint

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

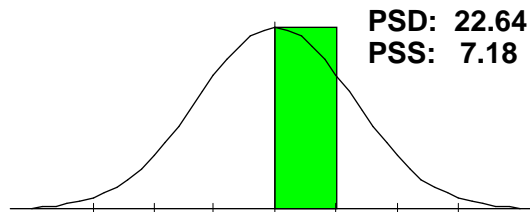
This panel may be helpful in assessing bone and joint health. Keeping the elements of this panel in a normal range may be helpful in reducing the risk of osteoporosis and other bone and joint disorders. The deviation was below 25% so no abnormalities were found.



### Cardiac Marker

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

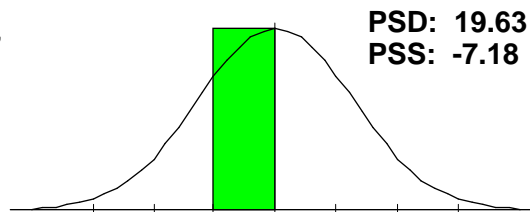
This panel may be helpful in assessing cardiovascular disease risk. Keeping the elements in this panel in a normal range is important in reducing the risk of CVD. The deviation was below 25% so no abnormalities were found.



### Cellular Distortions

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

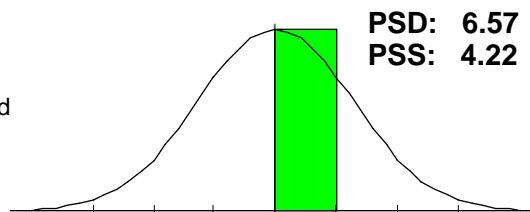
This panel may be helpful in determining the ability of the body to properly produce healthy cells. The deviation was below 25% so no abnormalities were found.



### Differential

Basophils, Eosinophils, Lymphocytes, 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.



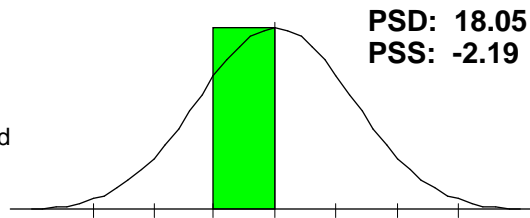
Frank

Male / Age: 60

**Differential Count**

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

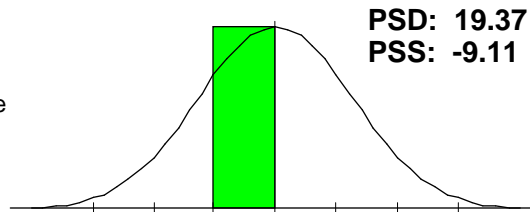
This panel may be helpful in assessing immune system health. Excesses or deficiencies in this panel may indicate a compromised immune system. The deviation was below 25% so no abnormalities were found.



**Electrolyte**

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

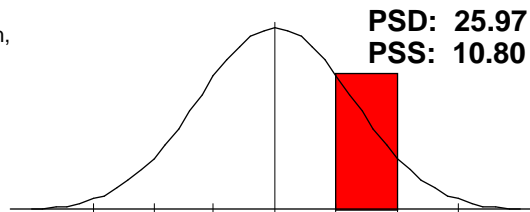
This panel is a representation of electrolyte balance in blood. Balance is critical in maintaining and achieving optimal health. The deviation was below 25% so no abnormalities were found.



**Gastrointest. Function**

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

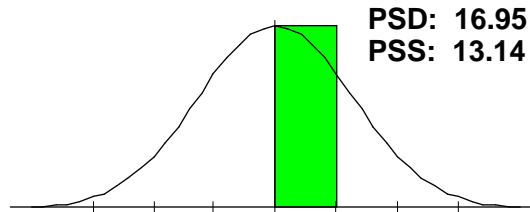
This panel profile indicates the need for further evaluation of gastrointestinal integrity, digestion and absorption. Check for dysbiosis, food allergies or "leaky gut" syndrome.



**Hematology**

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

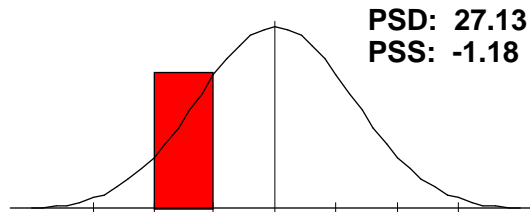
The hematology panel assesses the production of red blood cells and their function. The deviation was below 25% so no abnormalities were found.



**Inflammatory Process**

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

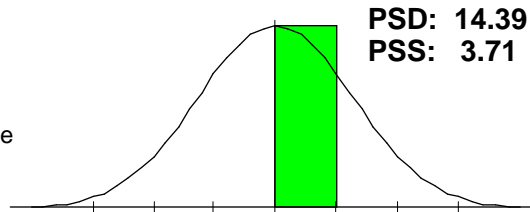
This panel profile implies that there may be nutrient deficiencies, especially amino acids. Consider revamping the patient's diet, looking specifically into raising the ingestion of quality proteins.



**Kidney Function**

Albumin[H], B.U.N., B.U.N./Creatinine Ratio, Chloride, CO2[H], Creatinine, Glucose, 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.



## Panel/Subset Report

Foundational Wellness Profile Date: 12/6/2004

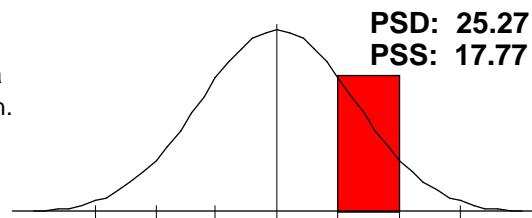
Frank

Male / Age: 60

### Lipid

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

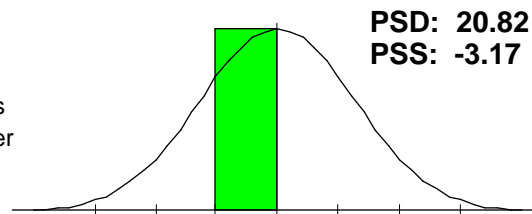
The panel profile seen here suggests that the patient may be at a greater risk for coronary heart disease than the general population. A dietary evaluation should be undertaken as well to educate the patient about saturated and trans fats.



### Liver Function

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

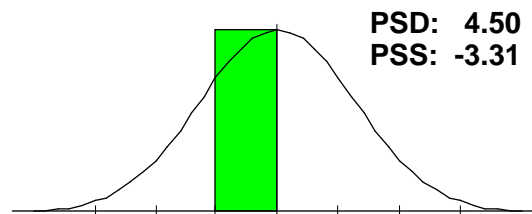
Assessing liver function is important in determining the individual's ability to detoxify itself as well as processing amino acids and other important biological processes. The deviation was below 25% so no abnormalities were found.



### Nitrogen

B.U.N., B.U.N./Creatinine Ratio, Creatinine, Uric Acid.

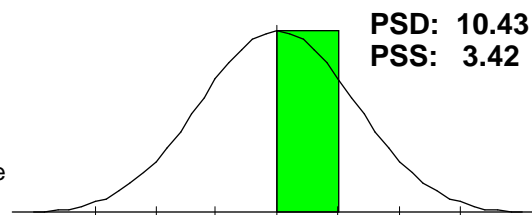
Nitrogen is an important element in achieving optimal wellness. The elements in this panel are important in determining nitrogen competency. The deviation was below 25% so no abnormalities were found.



### Protein

A/G Ratio, Albumin[H], Globulin, Protein, Total.

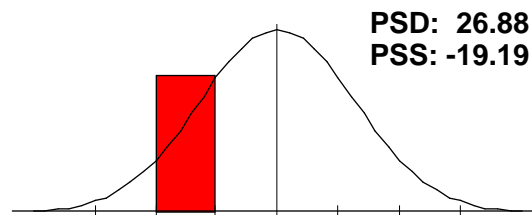
Proteins are the basic building blocks of hormones, muscle, neurotransmitters, immune systems responses and more. Assessing their competency is crucial in achieving optimal wellness. The deviation was below 25% so no abnormalities were found.



### Pulmonary Function

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

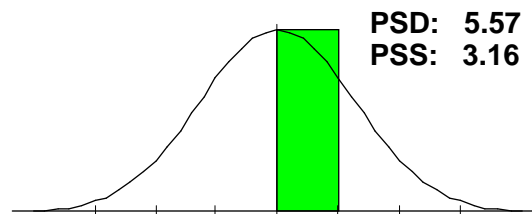
This panel profile suggests that pulmonary function may not be at highest efficiency. Clinical signs of an abnormality include poor stress management, inactive lifestyle and improper breathing techniques.



### Ratios

A/G Ratio, B.U.N./Creatinine Ratio, Calcium/Phosphorus Ratio, Sodium/Potassium 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.



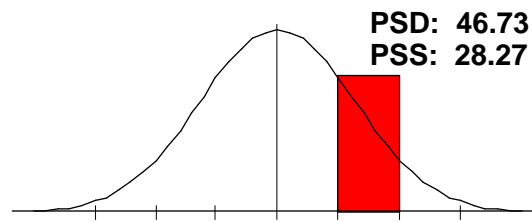
Frank

Male / Age: 60

**Thyroid**

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

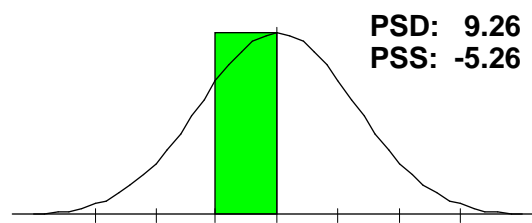
This panel may indicate the need for a careful review of the individual markers in order to determine causative factors.



**Amino Acid Catabolism**

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

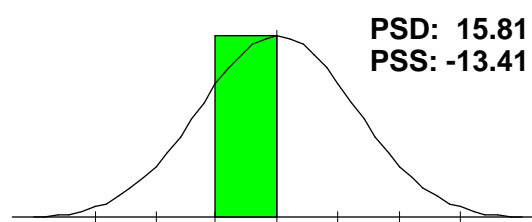
A normal reading in this panel suggest proper amino acid stores.



**B-Complex Markers**

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

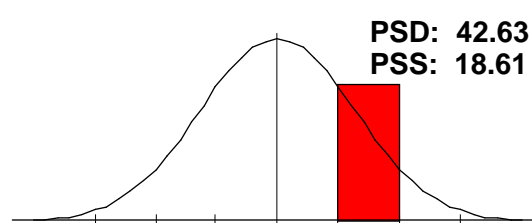
A normal panel profile such as this is an indicator of adequate intake of B-complex vitamins.



**CAC Cycle Ratios**

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

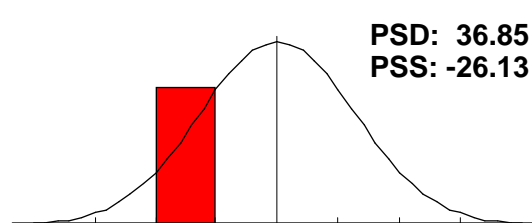
This panel reflects steps of the citric acid cycle. A high reading may be indicative of poor energy production and/or vitamin, mineral and amino acid deficiencies.



**Carbohydrate Metabolism**

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

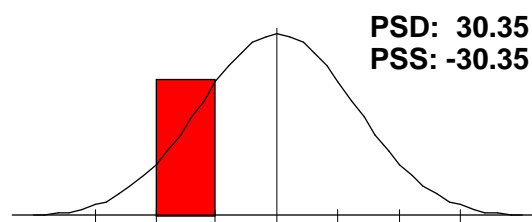
This profile may be due to poor carbohydrate metabolism or intake. It may also be due to low levels of physical activity or in well conditioned athletes.



**Citric Acid Cycle**

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

This panel profile may be due to poor amino acid metabolism or low dietary intake of quality proteins.



Frank

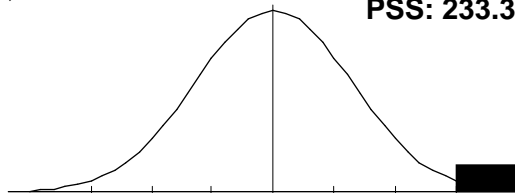
Male / Age: 60

**Intestinal Dysbiosis**

Hippurate, Benzoate, p-Hydroxybenzoate[L], p-Hydroxyphenyllactate, Phenylacetate, Phenylpropionate[H], Tricarballoylate, DHPP[L], Indican.

**PSD: 253.00**  
**PSS: 233.36**

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.

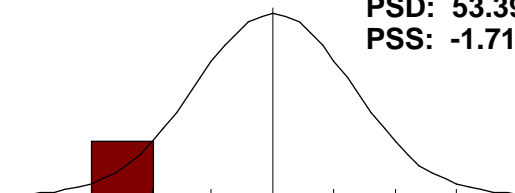


**Liver Detox Indicators**

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

**PSD: 53.39**  
**PSS: -1.71**

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

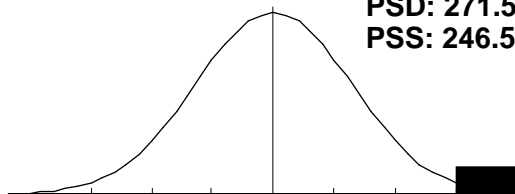


**Neurotransmitters**

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

**PSD: 271.59**  
**PSS: 246.59**

The panel profile seen here may be due to the use of serotonin re-uptake inhibitors such as Prozac or poor catecholamine catabolism.



## Clinical Correlation

Foundational Wellness Profile Date: 12/6/2004

Frank

Male / Age: 60

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

50.00 Cystathionine - P

### Fatigue/Low Cellular Energy Production ()

100.00% (1 of 1)

Decreased

Normal

Increased

-45.83 Aspartic Acid - P

### Potential Excessive Oxidative Damage ()

100.00% (1 of 1)

Decreased

Normal

Increased

-44.00 Taurine - P

### Potential Rheumatoid Arthritis ()

100.00% (1 of 1)

Decreased

Normal

Increased

-31.43 Histidine - P

### Potential Zinc Deficiency ()

100.00% (2 of 2)

Decreased

Normal

Increased

-27.04 Alkaline Phosphatase

-32.00 LDH

### Euthyroid Sick Syndrome ()

66.67% (2 of 3)

Decreased

Normal

Increased

n/a Triiodothyronine

-19.33 Thyroxine (T4)

120.00 Ultra-Sensitive TSH

## Comparison Progress Report

**Frank**

Male / Age: 60

**Foundational Wellness Profile Date: 12/6/2004**

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

	<b>Status % on: 5/25/2004</b>		<b>12/6/2004</b>		<b>+/- change</b>
Ethanolamine - P	<b>25.00</b>	<b>H</b>	<b>62.50</b>	<b>H</b>	<b>- 37.50</b>
1-Methylhistidine - P	-10.00		<b>35.00</b>	<b>H</b>	<b>- 25.00</b>
Cystathionine - P	<b>25.00</b>	<b>H</b>	<b>50.00</b>	<b>H</b>	<b>- 25.00</b>
Glycine/Serine Ratio	<b>92.71</b>	<b>H</b>	4.39		+ 88.32
Methionine - P	<b>-46.00</b>	<b>L</b>	-10.00		+ 36.00
Sarcosine - P	<b>42.00</b>	<b>H</b>	-10.00		+ 32.00
Arginine - P	<b>-38.18</b>	<b>L</b>	-6.36		+ 31.82
Collagen Related AA	<b>73.33</b>	<b>H</b>	<b>42.67</b>	<b>H</b>	<b>+ 30.67</b>
Lysine - P	<b>-48.67</b>	<b>L</b>	-19.33		+ 29.33
Serine - P	<b>-71.67</b>	<b>L</b>	<b>-45.83</b>	<b>L</b>	<b>+ 25.83</b>

## Comparison Report

Foundational Wellness Profile Date: 12/6/2004

**Frank**

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:	5/25/2004	12/6/2004
-10.00		35.00	-	1-Methylhistidine - P	-10.00 35.00 H
				3-Methylhistidine - P	30.00 H 30.00 H
				a-Aminoadipic Acid - P	-12.50 12.50
-30.00		-10.00	+	a-Amino-N-Butyric Acid - P	-30.00 L -10.00
0.00		12.00	-	Alanine - P	0.00 12.00
				Anserine - P	50.00 H 50.00 H
-38.18		-6.36	+	Arginine - P	-38.18 L -6.36
				Asparagine - P	-35.88 L -31.18 L
				Aspartic Acid - P	-50.00 L -45.83 L
				b-Alanine - P	-10.00 -10.00
				b-Aminoisobutyric Acid - P	0.00 0.00
				Carnosine - P	50.00 H 50.00 H
				Citrulline - P	-37.27 L -37.27 L
42.67		73.33	+	Collagen Related AA	73.33 H 42.67 H
25.00		50.00	-	Cystathionine - P	25.00 H 50.00 H
-31.25		8.75	-	Cystine - P	8.75 -31.25 L
25.00		62.50	-	Ethanolamine - P	25.00 H 62.50 H
				GABA - P	-10.00 -10.00
-42.38		-21.43	+	Glutamic Acid - P	-42.38 L -21.43
				Glutamine - P	-24.67 -31.56 L
				Glycine - P	-46.44 L -52.22 L
4.39		92.71	+	Glycine/Serine Ratio	92.71 H 4.39
				Histidine - P	-31.43 L -31.43 L
				Homocystine - P	50.00 H 50.00 H
				Hydroxylysine - P	50.00 H 50.00 H
				Hydroxyproline - P	-6.67 -16.67
-16.67		-6.67	-	Isoleucine - P	-34.55 L -30.91 L
				Leucine - P	-10.00 -19.09
-19.09		-10.00	-	Lysine - P	-48.67 L -19.33
-48.67		-19.33	+	Methionine - P	-46.00 L -10.00
-46.00		-10.00	+	Ornithine - P	-41.33 L -48.00 L
				Phenylalanine - P	-38.42 L -33.16 L
				Phenylalanine/Tyrosine	-24.03 -18.00
				Phosphoethanolamine - P	-3.33 -6.67
				Phosphoserine - P	8.33 8.33
-42.96		-25.93	-	Proline - P	-25.93 L -42.96 L
-10.00		42.00	+	Sarcosine - P	42.00 H -10.00
-71.67		-45.83	+	Serine - P	-71.67 L -45.83 L
				Taurine - P	-49.00 L -44.00 L
				Threonine - P	-24.67 -29.33 L
13.33		36.67	+	Tryptophan - P	36.67 H 13.33
				Tyrosine - P	-22.86 -22.86
				Valine - P	-31.60 L -37.60 L
				<b>Total Status Deviation</b>	<b>32.88 28.67</b>
				<b>Total Status Skew</b>	<b>-9.33 -8.20</b>

## Comparison Progress Report

**Frank**

Male / Age: 60

**Foundational Wellness Profile Date: 12/6/2004**

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

	<b>Status % on:</b>	<b>5/25/2004</b>	<b>12/6/2004</b>	<b>+/- change</b>
Iron, Total		-7.39	<b>48.26 H</b>	- <b>40.87</b>
Ultra-Sensitive TSH		<b>85.43 H</b>	<b>120.00 H</b>	- <b>34.57</b>
sGPT		0.00	<b>-32.05 L</b>	- <b>32.05</b>
sGOT		5.00	<b>-34.85 L</b>	- <b>29.85</b>
Eosinophil Count		-6.00	<b>33.75 H</b>	- <b>27.75</b>
Glucose		<b>61.76 H</b>	22.73	+ 39.04
Lymphocytes		<b>-33.33 L</b>	0.00	+ 33.33
Cholesterol		<b>54.00 H</b>	20.83	+ 33.17

## Comparison Report

Foundational Wellness Profile Date: 12/6/2004

Frank

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:	5/25/2004	12/6/2004
				A/G Ratio	-7.69 -2.20
16.67		34.62	-	Albumin	16.67 34.62 H
-27.04		-15.60	-	Alkaline Phosphatase	-15.60 -27.04 L
-29.00		38.33	+	Anion Gap	38.33 H -29.00 L
-11.90		2.38	+	B.U.N.	-11.90 2.38
-28.95		-5.02	+	B.U.N./Creatinine Ratio	-28.95 L -5.02
				Basophil Count	-23.00 -16.50
-16.67		0.00	+	Basophils	-16.67 0.00
-4.55		13.64	-	Bilirubin, Total	-4.55 13.64
-45.24		-26.19	+	Calcium	-45.24 L -26.19 L
-2.58		10.32	-	Calcium/Phosphorus Ratio	-2.58 10.32
3.85		19.23	+	Chloride	19.23 3.85
20.83		54.00	+	Cholesterol	54.00 H 20.83
				CO2	-25.00 L 26.92 H
-7.14		30.00	+	Creatinine	30.00 H -7.14
-6.00		33.75	-	Eosinophil Count	-6.00 33.75 H
21.43		33.33	+	Eosinophils	33.33 H 21.43
				Free T4 Index (T7)	-17.57 -17.57
				GGT	-3.85 1.52
				Globulin	-13.33 -13.33
22.73		61.76	+	Glucose	61.76 H 22.73
-22.50		1.16	-	HDL-Cholesterol	1.16 -22.50
-4.44		15.00	-	Hematocrit	-4.44 15.00
				Hemoglobin	-14.00 21.11
-7.39		48.26	-	Iron, Total	-7.39 48.26 H
-32.00		-14.00	-	LDH	-14.00 -32.00 L
72.06		94.12	+	LDL	94.12 H 72.06 H
-38.95		-15.53	+	Lymphocyte Count	-38.95 L -15.53
-33.33		0.00	+	Lymphocytes	-33.33 L 0.00
				MCH	21.49 26.73 H
-31.42		20.29	+	MCHC	-31.42 L 20.29
				MCV	27.80 H 22.16
-30.22		5.89	+	Monocyte Count	-30.22 L 5.89
				Monocytes	3.85 5.56
				Neutrophil Count	-23.29 -18.58
-5.88		14.00	+	Neutrophils	14.00 -5.88
				Phosphorus	-20.00 -20.00
-20.00		5.00	-	Potassium	5.00 -20.00
-10.00		-2.00	+	Protein, Total	-10.00 -2.00
-20.56		0.00	+	R.B.C.	-20.56 0.00
-34.85		5.00	-	sGOT	5.00 -34.85 L
-32.05		0.00	-	sGPT	0.00 -32.05 L
-19.23		3.85	-	Sodium	3.85 -19.23
30.00		43.33	+	T-3 Uptake	43.33 H 30.00 H
				Thyroxine (T4)	-26.00 L -19.33
36.24		54.70	+	Triglycerides	54.70 H 36.24 H
85.43		120.00	-	Ultra-Sensitive TSH	85.43 H 120.00 H
-3.45		22.41	+	Uric Acid	22.41 -3.45
-28.46		-13.33	+	W.B.C.	-28.46 L -13.33
			<b>Total Status Deviation</b>	<b>23.10</b>	<b>20.68</b>
			<b>Total Status Skew</b>	<b>2.18</b>	<b>4.57</b>

## Comparison Progress Report

Foundational Wellness Profile Date: 12/6/2004

**Frank**

Male / Age: 60

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

	Status % on:	5/25/2004	12/6/2004	+/- change
Phenylpropionate		-7.14	<b>3121.43 H</b>	<b>-3114.29</b>
5-Hydroxyindoleacetate		<b>-48.36 L</b>	<b>1202.46 H</b>	<b>-1154.10</b>
Bacteria2		<b>-25.00 L</b>	<b>778.57 H</b>	<b>- 753.57</b>
Formiminoglutamic Acid		-12.50	<b>106.25 H</b>	<b>- 93.75</b>
2-Methylhippurate		16.22	<b>85.14 H</b>	<b>- 68.92</b>
Quinolate		-12.86	<b>75.71 H</b>	<b>- 62.86</b>
cis-Aconitate		-7.35	<b>-64.71 L</b>	<b>- 57.35</b>
CA Cycle Phase 1		-2.66	<b>45.50 H</b>	<b>- 42.84</b>
Pyroglutamate		18.12	<b>56.25 H</b>	<b>- 38.13</b>
Ethylmalonate		1.67	<b>-35.83 L</b>	<b>- 34.17</b>
Adipate		8.33	<b>-40.48 L</b>	<b>- 32.14</b>
D-Lactate		2.63	<b>-34.21 L</b>	<b>- 31.58</b>
Kynurenate		-5.00	<b>-32.50 L</b>	<b>- 27.50</b>
Isocitrate		-16.67	<b>-43.33 L</b>	<b>- 26.67</b>
Lactate		-18.89	<b>-45.56 L</b>	<b>- 26.67</b>
a-Hydroxybutyrate		21.82	<b>-48.18 L</b>	<b>- 26.36</b>
CA Cycle Entry		<b>209.72 H</b>	<b>109.17 H</b>	<b>+ 100.56</b>
Malate		<b>78.57 H</b>	-7.14	<b>+ 71.43</b>
b-Hydroxybutyrate		<b>83.33 H</b>	<b>-32.22 L</b>	<b>+ 51.11</b>
CA Cycle Return		<b>-43.19 L</b>	-7.89	<b>+ 35.30</b>
CA Cycle Phase 6		<b>121.43 H</b>	<b>87.93 H</b>	<b>+ 33.50</b>

## Comparison Report

Foundational Wellness Profile Date: 12/6/2004

Frank

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:	5/25/2004	12/6/2004
16.22		85.14	-	2-Methylhippurate	16.22 85.14 H
-48.36		1202.46	-	5-Hydroxyindoleacetate	-48.36 L 1202.46 H
-42.73		59.09	+	8-Hydroxy-2-deoxyguan	59.09 H -42.73 L
-40.48		8.33	-	Adipate	8.33 -40.48 L
-48.18		21.82	-	a-Hydroxybutyrate	21.82 -48.18 L
-14.29		0.00	-	a-Keto-b-methylvalerate	0.00 -14.29
				a-Ketoglutarate	22.14 -19.64
				a-Ketoisocaproate	10.00 6.00
				a-Ketoisovalerate	12.50 -7.50
				Benzoate	-11.76 -10.78
-32.22		83.33	+	b-Hydroxybutyrate	83.33 H -32.22 L
-20.00		-10.00	-	b-Hydroxyisovalerate	-10.00 -20.00
109.17		209.72	+	CA Cycle Entry	209.72 H 109.17 H
-43.19		-7.89	+	CA Cycle Return	-43.19 L -7.89
-64.71		-7.35	-	cis-Aconitate	-7.35 -64.71 L
				Citrate	-18.16 -16.88
-37.50		25.00	-	DHPP	25.00 H -37.50 L
-34.21		2.63	-	D-Lactate	2.63 -34.21 L
-35.83		1.67	-	Ethylmalonate	1.67 -35.83 L
-12.50		106.25	-	Formiminoglutamic Acid	-12.50 106.25 H
				Fumarate	20.00 -21.00
-49.19		-34.56	-	Glucarate	-34.56 L -49.19 L
-1.79		25.00	+	Hippurate	25.00 H -1.79
				Homovanillate	-24.55 17.27
				Hyoxymethylglutarate	27.42 H -29.03 L
-17.44		6.98	-	Indican	6.98 -17.44
-43.33		-16.67	-	Isocitrate	-16.67 -43.33 L
-32.50		-5.00	-	Kynurenate	-5.00 -32.50 L
-45.56		-18.89	-	Lactate	-18.89 -45.56 L
-7.14		78.57	+	Malate	78.57 H -7.14
				Methylmalonate	-29.17 L -31.25 L
13.64		31.82	+	Orotate	31.82 H 13.64
				Phenylacetate	-21.43 21.43
-7.14		3121.43	-	Phenylpropionate	-7.14 3121.43 H
				p-Hydroxybenzoate	-40.91 L -40.91 L
-34.44		-16.67	-	p-Hydroxyphenylacetate	-16.67 -34.44 L
				p-Hydroxyphenyllactate	23.97 18.49
18.12		56.25	-	Pyroglutamate	18.12 56.25 H
-7.14		21.43	-	Pyruvate	-7.14 21.43
-12.86		75.71	-	Quinolininate	-12.86 75.71 H
				Suberate	-12.96 -16.67
				Succinate	-41.58 L -41.05 L
-81.67		-60.00	-	Sulfate	-60.00 L -81.67 L
-19.23		3.85	-	Tricarballylate	3.85 -19.23
				Vanilylmandelate	-28.00 L -30.00 L
				Xanthurenate	-20.00 20.00
				<b>Total Status Deviation</b>	<b>31.59 117.91</b>
				<b>Total Status Skew</b>	<b>-0.12 71.90</b>

## Panel/Subset Comparison Report

Foundational Wellness Profile Date: 12/6/2004

**Frank**

Male / Age: 60

<b>Ammonia/Energy</b>	<b>5/25/2004</b>		<b>12/6/2004</b>	<b>+/-</b>		
Arginine - P	<b>-38.18</b> L		-6.36	+	<b>-38.18</b>	-6.36
Threonine - P	-24.67		<b>-29.33</b> L			
Glycine - P	<b>-46.44</b> L		<b>-52.22</b> L			
Serine - P	<b>-71.67</b> L		<b>-45.83</b> L	+	<b>-71.67</b>	<b>-45.83</b>
a-Aminoadipic Acid - P	-12.50		12.50			
Asparagine - P	<b>-35.88</b> L		<b>-31.18</b> L			
Aspartic Acid - P	<b>-50.00</b> L		<b>-45.83</b> L			
Citrulline - P	<b>-37.27</b> L		<b>-37.27</b> L			
Glutamic Acid - P	<b>-42.38</b> L		-21.43	+	<b>-42.38</b>	-21.43
Glutamine - P	-24.67		<b>-31.56</b> L			
Ornithine - P	<b>-41.33</b> L		<b>-48.00</b> L			
a-Amino-N-Butyric Acid - P	<b>-30.00</b> L		-10.00	+	<b>-30.00</b>	-10.00
Alanine - P	0.00		12.00	-	0.00	12.00
b-Alanine - P	-10.00		-10.00			
<b>PSS / PSD</b>	<b>-33.21 / 33.21</b>		<b>-24.61 / 28.11</b>			

<b>CNS Metabolism</b>	<b>5/25/2004</b>		<b>12/6/2004</b>	<b>+/-</b>		
Arginine - P	<b>-38.18</b> L		-6.36	+	<b>-38.18</b>	-6.36
Tryptophan - P	<b>36.67</b> H		13.33	+	13.33	<b>36.67</b>
GABA - P	-10.00		-10.00			
Glycine - P	<b>-46.44</b> L		<b>-52.22</b> L			
Serine - P	<b>-71.67</b> L		<b>-45.83</b> L	+	<b>-71.67</b>	<b>-45.83</b>
Taurine - P	<b>-49.00</b> L		<b>-44.00</b> L			
Aspartic Acid - P	<b>-50.00</b> L		<b>-45.83</b> L			
Glutamine - P	-24.67		<b>-31.56</b> L			
Ethanolamine - P	<b>25.00</b> H		<b>62.50</b> H	-	<b>25.00</b>	<b>62.50</b>
Phosphoethanolamine - P	-3.33		-6.67			
Phosphoserine - P	8.33		8.33			
<b>PSS / PSD</b>	<b>-20.30 / 33.03</b>		<b>-14.39 / 29.69</b>			

<b>Connective Tissue</b>	<b>5/25/2004</b>		<b>12/6/2004</b>	<b>+/-</b>		
Leucine - P	-10.00		-19.09	-	-19.09	-10.00
Methionine - P	<b>-46.00</b> L		-10.00	+	<b>-46.00</b>	-10.00
Valine - P	<b>-31.60</b> L		<b>-37.60</b> L			
Cystine - P	8.75		<b>-31.25</b> L	-	<b>-31.25</b>	8.75
Hydroxylysine - P	<b>50.00</b> H		<b>50.00</b> H			
Hydroxyproline - P	-6.67		-16.67	-	-16.67	-6.67
3-Methylhistidine - P	<b>30.00</b> H		<b>30.00</b> H			
Proline - P	<b>-25.93</b> L		<b>-42.96</b> L	-	<b>-42.96</b>	<b>-25.93</b>
<b>PSS / PSD</b>	<b>-3.93 / 26.12</b>		<b>-9.70 / 29.70</b>			

## Panel/Subset Comparison Report

Foundational Wellness Profile Date: 12/6/2004

Frank

Male / Age: 60

Essential Amino Acid	5/25/2004	12/6/2004	+/-	
Arginine - P	-38.18 L	-6.36	+	-38.18  -6.36
Histidine - P	-31.43 L	-31.43 L		
Isoleucine - P	-34.55 L	-30.91 L		
Leucine - P	-10.00	-19.09	-	-19.09  -10.00
Lysine - P	-48.67 L	-19.33	+	-48.67  -19.33
Methionine - P	-46.00 L	-10.00	+	-46.00  -10.00
Phenylalanine - P	-38.42 L	-33.16 L		
Threonine - P	-24.67	-29.33 L		
Tryptophan - P	36.67 H	13.33	+	13.33  36.67
Valine - P	-31.60 L	-37.60 L		
<b>PSS / PSD</b>	-26.68 / 34.02	-20.39 / 23.06		

Fat Metabolism	5/25/2004	12/6/2004	+/-	
Arginine - P	-38.18 L	-6.36	+	-38.18  -6.36
Isoleucine - P	-34.55 L	-30.91 L		
Leucine - P	-10.00	-19.09	-	-19.09  -10.00
Valine - P	-31.60 L	-37.60 L		
Taurine - P	-49.00 L	-44.00 L		
Glutamine - P	-24.67	-31.56 L		
Sarcosine - P	42.00 H	-10.00	+	-10.00  42.00
<b>PSS / PSD</b>	-20.86 / 32.86	-25.65 / 25.65		

Gluconeogen	5/25/2004	12/6/2004	+/-	
Threonine - P	-24.67	-29.33 L		
Tryptophan - P	36.67 H	13.33	+	13.33  36.67
Glycine - P	-46.44 L	-52.22 L		
Serine - P	-71.67 L	-45.83 L	+	-71.67  -45.83
Alanine - P	0.00	12.00	-	0.00  12.00
<b>PSS / PSD</b>	-21.22 / 35.89	-20.41 / 30.54		

Hepatic Metabolism	5/25/2004	12/6/2004	+/-	
Methionine - P	-46.00 L	-10.00	+	-46.00  -10.00
Taurine - P	-49.00 L	-44.00 L		
Glutamine - P	-24.67	-31.56 L		
Cystine - P	8.75	-31.25 L	-	-31.25  8.75
Cystathionine - P	25.00 H	50.00 H	-	25.00  50.00
Homocystine - P	50.00 H	50.00 H		
Alanine - P	0.00	12.00	-	0.00  12.00
<b>PSS / PSD</b>	-5.13 / 29.06	-0.69 / 32.69		

Immune Metabolites	5/25/2004	12/6/2004	+/-	
Arginine - P	-38.18 L	-6.36	+	-38.18  -6.36
Threonine - P	-24.67	-29.33 L		
Glutamine - P	-24.67	-31.56 L		
Ornithine - P	-41.33 L	-48.00 L		
<b>PSS / PSD</b>	-32.21 / 32.21	-28.81 / 28.81		

## Panel/Subset Comparison Report

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Frank

Male / Age: 60

Muscle Metabolites	5/25/2004		12/6/2004	+/-		
Anserine - P	50.00	H	50.00	H		
Carnosine - P	50.00	H	50.00	H		
1-Methylhistidine - P	-10.00		35.00	H	-	-10.00  35.00
3-Methylhistidine - P	30.00	H	30.00	H		
<b>PSS / PSD</b>	30.00 / 35.00		41.25 / 41.25			

Neuroendocrine Met.	5/25/2004		12/6/2004	+/-		
GABA - P	-10.00		-10.00			
Glycine - P	-46.44	L	-52.22	L		
Serine - P	-71.67	L	-45.83	L	+	-71.67  -45.83
Taurine - P	-49.00	L	-44.00	L		
Tyrosine - P	-22.86		-22.86			
<b>PSS / PSD</b>	-39.99 / 39.99		-34.98 / 34.98			

Adrenal Function	5/25/2004		12/6/2004	+/-		
Cholesterol	54.00	H	20.83	+		20.83  54.00
Eosinophils	33.33	H	21.43	+		21.43  33.33
Eosinophil Count	-6.00		33.75	H	-	-6.00  33.75
Potassium	5.00		-20.00	-		-20.00  5.00
Sodium	3.85		-19.23	-		-19.23  3.85
<b>PSS / PSD</b>	18.04 / 20.44		7.36 / 23.05			

Allergy	5/25/2004		12/6/2004	+/-		
Eosinophils	33.33	H	21.43	+		21.43  33.33
Globulin	-13.33		-13.33			
Lymphocytes	-33.33	L	0.00	+		-33.33  0.00
Monocytes	3.85		5.56			
W.B.C.	-28.46	L	-13.33	+		-28.46  -13.33
<b>PSS / PSD</b>	-7.59 / 22.46		0.06 / 10.73			

Anti Oxidant Status	5/25/2004		12/6/2004	+/-		
Anion Gap	38.33	H	-29.00	L	+	-29.00  38.33
Bilirubin, Total	-4.55		13.64	-		-4.55  13.64
Chloride	19.23		3.85	+		3.85  19.23
Cholesterol	54.00	H	20.83	+		20.83  54.00
Glucose	61.76	H	22.73	+		22.73  61.76
Iron, Total	-7.39		48.26	H	-	-7.39  48.26
<b>PSS / PSD</b>	23.06 / 26.47		11.47 / 19.76			

Athletic Potential	5/25/2004		12/6/2004	+/-		
B.U.N./Creatinine Ratio	-28.95	L	-5.02	+		-28.95  -5.02
Cholesterol	54.00	H	20.83	+		20.83  54.00
CO2	-25.00	L	26.92	H		
Creatinine	30.00	H	-7.14	+		-7.14  30.00
LDH	-14.00		-32.00	L	-	-32.00  -14.00
Potassium	5.00		-20.00	-		-20.00  5.00
Protein, Total	-10.00		-2.00	+		-10.00  -2.00
Sodium	3.85		-19.23	-		-19.23  3.85
HDL-Cholesterol	1.16		-22.50	-		-22.50  1.16
<b>PSS / PSD</b>	1.78 / 19.11		-6.68 / 17.29			

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Frank

Male / Age: 60

<b>Bone/Joint</b>	<b>5/25/2004</b>	<b>12/6/2004</b>	<b>+/-</b>	
Albumin	16.67	<b>34.62</b> H	-	16.67 <b>34.62</b>
Alkaline Phosphatase	-15.60	<b>-27.04</b> L	-	<b>-27.04</b> -15.60
Calcium	<b>-45.24</b> L	<b>-26.19</b> L	+	<b>-45.24</b> <b>-26.19</b>
Neutrophils	14.00	-5.88	+	-5.88  14.00
Phosphorus	-20.00	-20.00		
Protein, Total	-10.00	-2.00	+	-10.00  -2.00
Uric Acid	22.41	-3.45	+	-3.45  22.41
<b>PSS / PSD</b>	<b>-5.39 / 20.56</b>	<b>-7.13 / 17.02</b>		

<b>Cardiac Marker</b>	<b>5/25/2004</b>	<b>12/6/2004</b>	<b>+/-</b>	
Cholesterol	<b>54.00</b> H	20.83	+	20.83 <b>54.00</b>
GGT	-3.85	1.52		
Iron, Total	-7.39	<b>48.26</b> H	-	-7.39 <b>48.26</b>
LDH	-14.00	<b>-32.00</b> L	-	<b>-32.00</b> -14.00
sGOT	5.00	<b>-34.85</b> L	-	<b>-34.85</b> 5.00
Triglycerides	<b>54.70</b> H	<b>36.24</b> H	+	<b>36.24</b> <b>54.70</b>
Uric Acid	22.41	-3.45	+	-3.45  22.41
HDL-Cholesterol	1.16	-22.50	-	-22.50  1.16
LDL	<b>94.12</b> H	<b>72.06</b> H	+	<b>72.06</b> <b>94.12</b>
<b>PSS / PSD</b>	<b>17.18 / 21.39</b>	<b>7.18 / 22.64</b>		

<b>Cellular Distortions</b>	<b>5/25/2004</b>	<b>12/6/2004</b>	<b>+/-</b>	
Alkaline Phosphatase	-15.60	<b>-27.04</b> L	-	<b>-27.04</b> -15.60
Anion Gap	<b>38.33</b> H	<b>-29.00</b> L	+	<b>-29.00</b> <b>38.33</b>
GGT	-3.85	1.52		
Iron, Total	-7.39	<b>48.26</b> H	-	-7.39 <b>48.26</b>
LDH	-14.00	<b>-32.00</b> L	-	<b>-32.00</b> -14.00
Neutrophils	14.00	-5.88	+	-5.88  14.00
W.B.C.	<b>-28.46</b> L	-13.33	+	<b>-28.46</b> -13.33
<b>PSS / PSD</b>	<b>-2.12 / 15.20</b>	<b>-7.18 / 19.63</b>		

<b>Differential</b>	<b>5/25/2004</b>	<b>12/6/2004</b>	<b>+/-</b>	
Basophils	-16.67	0.00	+	-16.67  0.00
Eosinophils	<b>33.33</b> H	21.43	+	21.43 <b>33.33</b>
Lymphocytes	<b>-33.33</b> L	0.00	+	<b>-33.33</b> 0.00
Monocytes	3.85	5.56		
Neutrophils	14.00	-5.88	+	-5.88  14.00
<b>PSS / PSD</b>	<b>0.24 / 20.24</b>	<b>4.22 / 6.57</b>		

<b>Differential Count</b>	<b>5/25/2004</b>	<b>12/6/2004</b>	<b>+/-</b>	
Basophil Count	-23.00	-16.50		
Eosinophil Count	-6.00	<b>33.75</b> H	-	-6.00 <b>33.75</b>
Lymphocyte Count	<b>-38.95</b> L	-15.53	+	<b>-38.95</b> -15.53
Monocyte Count	<b>-30.22</b> L	5.89	+	<b>-30.22</b> 5.89
Neutrophil Count	-23.29	-18.58		
<b>PSS / PSD</b>	<b>-24.29 / 24.29</b>	<b>-2.19 / 18.05</b>		

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**Frank**

Male / Age: 60

<b>Electrolyte</b>	<b>5/25/2004</b>		<b>12/6/2004</b>		<b>+/-</b>			
Calcium	<b>-45.24</b>	L	<b>-26.19</b>	L	+	<b>-45.24</b>		<b>-26.19</b>
Chloride	19.23		3.85		+	3.85		19.23
CO2	<b>-25.00</b>	L	<b>26.92</b>	H				
Phosphorus	-20.00		-20.00					
Potassium	5.00		-20.00		-	-20.00		5.00
Sodium	3.85		-19.23		-	-19.23		3.85
<b>PSS / PSD</b>	<b>-10.36 / 19.72</b>		<b>-9.11 / 19.37</b>					

<b>Gastrointest. Function</b>	<b>5/25/2004</b>		<b>12/6/2004</b>		<b>+/-</b>			
Anion Gap	<b>38.33</b>	H	<b>-29.00</b>	L	+	<b>-29.00</b>		<b>38.33</b>
Chloride	19.23		3.85		+	3.85		19.23
Cholesterol	<b>54.00</b>	H	20.83		+	20.83		<b>54.00</b>
CO2	<b>-25.00</b>	L	<b>26.92</b>	H				
Monocytes	3.85		5.56					
Potassium	5.00		-20.00		-	-20.00		5.00
Sodium	3.85		-19.23		-	-19.23		3.85
Triglycerides	<b>54.70</b>	H	<b>36.24</b>	H	+	<b>36.24</b>		<b>54.70</b>
LDL	<b>94.12</b>	H	<b>72.06</b>	H	+	<b>72.06</b>		<b>94.12</b>
<b>PSS / PSD</b>	<b>27.56 / 33.12</b>		<b>10.80 / 25.97</b>					

<b>Hematology</b>	<b>5/25/2004</b>		<b>12/6/2004</b>		<b>+/-</b>			
Hematocrit	-4.44		15.00		-	-4.44		15.00
Hemoglobin	-14.00		21.11					
MCH	21.49		<b>26.73</b>	H				
MCHC	<b>-31.42</b>	L	20.29		+	<b>-31.42</b>		20.29
MCV	<b>27.80</b>	H	22.16					
R.B.C.	-20.56		0.00		+	-20.56		0.00
W.B.C.	<b>-28.46</b>	L	-13.33		+	<b>-28.46</b>		-13.33
<b>PSS / PSD</b>	<b>-7.08 / 21.17</b>		<b>13.14 / 16.95</b>					

<b>Inflammatory Process</b>	<b>5/25/2004</b>		<b>12/6/2004</b>		<b>+/-</b>			
Eosinophils	<b>33.33</b>	H	21.43		+	21.43		<b>33.33</b>
Globulin	-13.33		-13.33					
LDH	-14.00		<b>-32.00</b>	L	-	<b>-32.00</b>		-14.00
Neutrophils	14.00		-5.88		+	-5.88		14.00
Potassium	5.00		-20.00		-	-20.00		5.00
sGOT	5.00		<b>-34.85</b>	L	-	<b>-34.85</b>		5.00
sGPT	0.00		<b>-32.05</b>	L	-	<b>-32.05</b>		0.00
Triglycerides	<b>54.70</b>	H	<b>36.24</b>	H	+	<b>36.24</b>		<b>54.70</b>
Uric Acid	22.41		-3.45		+	-3.45		22.41
LDL	<b>94.12</b>	H	<b>72.06</b>	H	+	<b>72.06</b>		<b>94.12</b>
<b>PSS / PSD</b>	<b>20.12 / 25.59</b>		<b>-1.18 / 27.13</b>					

## Panel/Subset Comparison Report

Foundational Wellness Profile Date: 12/6/2004

**Frank**

Male / Age: 60

<b>Kidney Function</b>	<b>5/25/2004</b>	<b>12/6/2004</b>	<b>+/-</b>	
Albumin	16.67	<b>34.62</b> H	-	16.67 <b>34.62</b>
B.U.N.	-11.90	2.38	+	-11.90  2.38
B.U.N./Creatinine Ratio	<b>-28.95</b> L	-5.02	+	<b>-28.95</b> -5.02
Chloride	19.23	3.85	+	3.85  19.23
CO2	<b>-25.00</b> L	<b>26.92</b> H		
Creatinine	<b>30.00</b> H	-7.14	+	-7.14 <b>30.00</b>
Glucose	<b>61.76</b> H	22.73	+	22.73 <b>61.76</b>
Potassium	5.00	-20.00	-	-20.00  5.00
Protein, Total	-10.00	-2.00	+	-10.00  -2.00
Sodium	3.85	-19.23	-	-19.23  3.85
<b>PSS / PSD</b>	6.07 / 21.24	3.71 / 14.39		

<b>Lipid</b>	<b>5/25/2004</b>	<b>12/6/2004</b>	<b>+/-</b>	
Cholesterol	<b>54.00</b> H	20.83	+	20.83 <b>54.00</b>
Triglycerides	<b>54.70</b> H	<b>36.24</b> H	+	<b>36.24</b> <b>54.70</b>
HDL-Cholesterol	1.16	-22.50	-	-22.50  1.16
LDL	<b>94.12</b> H	<b>72.06</b> H	+	<b>72.06</b> <b>94.12</b>
<b>PSS / PSD</b>	34.00 / 34.00	17.77 / 25.27		

<b>Liver Function</b>	<b>5/25/2004</b>	<b>12/6/2004</b>	<b>+/-</b>	
Albumin	16.67	<b>34.62</b> H	-	16.67 <b>34.62</b>
Alkaline Phosphatase	-15.60	<b>-27.04</b> L	-	<b>-27.04</b> -15.60
Bilirubin, Total	-4.55	13.64	-	-4.55  13.64
Cholesterol	<b>54.00</b> H	20.83	+	20.83 <b>54.00</b>
GGT	-3.85	1.52		
Protein, Total	-10.00	-2.00	+	-10.00  -2.00
sGOT	5.00	<b>-34.85</b> L	-	<b>-34.85</b> 5.00
sGPT	0.00	<b>-32.05</b> L	-	<b>-32.05</b> 0.00
<b>PSS / PSD</b>	5.21 / 13.71	-3.17 / 20.82		

<b>Nitrogen</b>	<b>5/25/2004</b>	<b>12/6/2004</b>	<b>+/-</b>	
B.U.N.	-11.90	2.38	+	-11.90  2.38
B.U.N./Creatinine Ratio	<b>-28.95</b> L	-5.02	+	<b>-28.95</b> -5.02
Creatinine	<b>30.00</b> H	-7.14	+	-7.14 <b>30.00</b>
Uric Acid	22.41	-3.45	+	-3.45  22.41
<b>PSS / PSD</b>	2.89 / 23.32	-3.31 / 4.50		

<b>Protein</b>	<b>5/25/2004</b>	<b>12/6/2004</b>	<b>+/-</b>	
A/G Ratio	-7.69	-2.20		
Albumin	16.67	<b>34.62</b> H	-	16.67 <b>34.62</b>
Globulin	-13.33	-13.33		
Protein, Total	-10.00	-2.00	+	-10.00  -2.00
<b>PSS / PSD</b>	-1.03 / 11.38	3.42 / 10.43		

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Foundational Wellness Profile Date: 12/6/2004

Frank

Male / Age: 60

<b>Pulmonary Function</b>	<b>5/25/2004</b>		<b>12/6/2004</b>		<b>+/-</b>	
Anion Gap	38.33	H	-29.00	L	+	-29.00 ← 38.33
Calcium	-45.24	L	-26.19	L	+	-45.24 → -26.19
CO2	-25.00	L	26.92	H		
LDH	-14.00		-32.00	L	-	-32.00 ← -14.00
Potassium	5.00		-20.00		-	-20.00 ← 5.00
sGOT	5.00		-34.85	L	-	-34.85 ← 5.00
Sodium	3.85		-19.23		-	-19.23 ← 3.85
<b>PSS / PSD</b>	<b>-4.58 / 19.49</b>		<b>-19.19 / 26.88</b>			

<b>Ratios</b>	<b>5/25/2004</b>		<b>12/6/2004</b>		<b>+/-</b>	
A/G Ratio	-7.69		-2.20			
B.U.N./Creatinine Ratio	-28.95	L	-5.02		+	-28.95 → -5.02
Calcium/Phosphorus Ratio	-2.58		10.32		-	-2.58 → 10.32
Sodium/Potassium Ratio	-9.42		15.85			
<b>PSS / PSD</b>	<b>-6.57 / 9.65</b>		<b>3.16 / 5.57</b>			

<b>Thyroid</b>	<b>5/25/2004</b>		<b>12/6/2004</b>		<b>+/-</b>	
Thyroxine (T4)	-26.00	L	-19.33			
T-3 Uptake	43.33	H	30.00	H	+	30.00 ← 43.33
Free T4 Index (T7)	-17.57		-17.57			
Ultra-Sensitive TSH	85.43	H	120.00	H	-	85.43 → 120.00
<b>PSS / PSD</b>	<b>21.30 / 43.08</b>		<b>28.27 / 46.73</b>			

<b>Amino Acid Catabolism</b>	<b>5/25/2004</b>		<b>12/6/2004</b>		<b>+/-</b>	
a-Ketoisovalerate	12.50		-7.50			
a-Ketoisocaproate	10.00		6.00			
a-Keto-b-methylvalerate	0.00		-14.29		-	-14.29 ← 0.00
<b>PSS / PSD</b>	<b>7.50 / 7.50</b>		<b>-5.26 / 9.26</b>			

<b>B-Complex Markers</b>	<b>5/25/2004</b>		<b>12/6/2004</b>		<b>+/-</b>	
b-Hydroxyisovalerate	-10.00		-20.00		-	-20.00 ← -10.00
a-Ketoisovalerate	12.50		-7.50			
a-Ketoisocaproate	10.00		6.00			
a-Keto-b-methylvalerate	0.00		-14.29		-	-14.29 ← 0.00
Methylmalonate	-29.17	L	-31.25	L		
<b>PSS / PSD</b>	<b>-3.33 / 12.33</b>		<b>-13.41 / 15.81</b>			

<b>CAC Cycle Ratios</b>	<b>5/25/2004</b>		<b>12/6/2004</b>		<b>+/-</b>	
CA Cycle Entry	209.72	H	109.17	H	+	109.17 ← 209.72
CA Cycle Phase 1	-2.66		45.50	H	-	-2.66 → 45.50
CA Cycle Phase 2	-31.01	L	-22.50		+	-31.01 → -22.50
CA Cycle Phase 3	-16.22		2.38		+	-16.22 → 2.38
CA Cycle Phase 4	-45.95	L	-41.19	L		
CA Cycle Phase 5	-39.71	L	-24.48		+	-39.71 → -24.48
CA Cycle Phase 6	121.43	H	87.93	H	+	87.93 ← 121.43
CA Cycle Return	-43.19	L	-7.89		+	-43.19 → -7.89
<b>PSS / PSD</b>	<b>19.05 / 63.74</b>		<b>18.61 / 42.63</b>			

## Panel/Subset Comparison Report

Foundational Wellness Profile Date: 12/6/2004

Frank

Male / Age: 60

Carbohydrate Metabolism		5/25/2004	12/6/2004	+/-	
Lactate	-18.89	-45.56	L	-	-45.56 ← -18.89
Pyruvate	-7.14	21.43	-	-	-7.14 → 21.43
a-Hydroxybutyrate	21.82	-48.18	L	-	-48.18 ← 21.82
b-Hydroxybutyrate	83.33 H	-32.22	L	+	-32.22 ← 83.33
<b>PSS / PSD</b>	19.78 / 32.80	-26.13 / 36.85			

Citric Acid Cycle		5/25/2004	12/6/2004	+/-	
Citrate	-18.16	-16.88			
cis-Aconitate	-7.35	-64.71	L	-	-64.71 ← -7.35
Isocitrate	-16.67	-43.33	L	-	-43.33 ← -16.67
a-Ketoglutarate	22.14	-19.64			
Succinate	-41.58 L	-41.05	L		
Fumarate	20.00	-21.00			
Malate	78.57 H	-7.14		+	-7.14 ← 78.57
Hydroxymethylglutarate	27.42 H	-29.03	L		
<b>PSS / PSD</b>	8.05 / 28.99	-30.35 / 30.35			

Intestinal Dysbiosis		5/25/2004	12/6/2004	+/-	
Hippurate	25.00 H	-1.79		+	-1.79 ← 25.00
Benzoate	-11.76	-10.78			
p-Hydroxybenzoate	-40.91 L	-40.91	L		
p-Hydroxyphenyllactate	23.97	18.49			
Phenylacetate	-21.43	21.43			
Phenylpropionate	-7.14	3121.43	H	-	-7.14 → 3121.43
Tricarballicylate	3.85	-19.23	-	-	-19.23 ← 3.85
DHPP	25.00 H	-37.50	L	-	-37.50 ← 25.00
Indican	6.98	-17.44	-	-	-17.44 ← 6.98
<b>PSS / PSD</b>	12.71 / 25.21	233.36 / 253.00			

Liver Detox Indicators		5/25/2004	12/6/2004	+/-	
2-Methylhippurate	16.22	85.14	H	-	16.22 → 85.14
Glucarate	-34.56 L	-49.19	L	-	-49.19 ← -34.56
P-Hydroxyphenylacetate	-16.67	-34.44	L	-	-34.44 ← -16.67
Orotate	31.82 H	13.64		+	13.64 ← 31.82
Pyroglutamate	18.12	56.25	H	-	18.12 → 56.25
Sulfate	-60.00 L	-81.67	L	-	-81.67 ← -60.00
<b>PSS / PSD</b>	-7.51 / 29.56	-1.71 / 53.39			

Neurotransmitters		5/25/2004	12/6/2004	+/-	
Vanilylmandelate	-28.00 L	-30.00	L		
Homovanillate	-24.55	17.27			
5-Hydroxyindoleacetate	-48.36 L	1202.46	H	-	-48.36 → 1202.46
Kynurenate	-5.00	-32.50	L	-	-32.50 ← -5.00
Quinolinate	-12.86	75.71	H	-	-12.86 → 75.71
<b>PSS / PSD</b>	-23.75 / 23.75	246.59 / 271.59			