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**Anna**

April 2009  
(accession: A0904290213)

Next Test Due: 10/29/2009

## ***LabAssist™ Foundational Wellness Profile Report***

### ***Practitioner***

*Printed on Thursday, May 7, 2009 for:*

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

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## Basic Status High/Low - Plasma Amino Acid on 4/29/2009

**Anna**

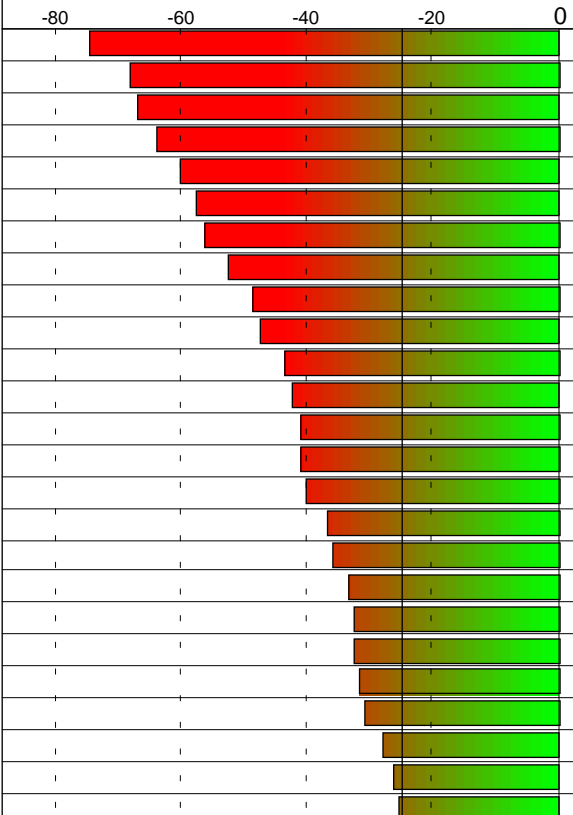
**Foundational Wellness Profile April 2009**

Female / Age: 57

Client ID:555986644 (8322)

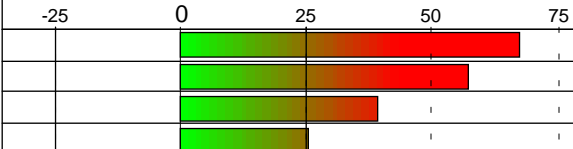
The % Status is the weighted deviation of the laboratory result.

### Low Results

-80	-60	-40	-20	0		% Status	Result	Low	High
					Glycine	-74.29 L	6.50	15.00	50.00
					Serine	-68.00 L	4.20	6.00	16.00
					Phosphoserine	-66.67 L	0.01	0.01	0.03
					Threonine	-63.57 L	6.10	8.00	22.00
					Asparagine	-60.00 L	3.10	3.50	7.50
					Glutamine	-57.41 L	34.00	36.00	63.00
					Histidine	-56.00 L	4.70	5.00	10.00
					Glutamine/Glutamate	-52.19 L	6.50	8.50	100.00
					Urea	-48.41 L	210.00	200.00	830.00
					Aspartic Acid	-47.24 L	0.19	0.15	1.60
					Isoleucine	-43.65 L	4.10	3.70	10.00
					Ammonia	-42.33 L	2.30	0.00	30.00
					Lysine	-40.91 L	16.00	15.00	26.00
					Asparagine/Aspartate	-40.81 L	16.00	7.50	100.00
					Phenylalanine	-40.00 L	4.50	4.00	9.00
					Tyrosine	-36.67 L	4.80	4.00	10.00
					Homocystine	-36.00 L	0.01	0.00	0.10
					Valine	-33.33 L	16.00	13.00	31.00
					Phosphoethanolamine	-32.61 L	0.24	0.08	1.00
					Taurine	-32.61 L	6.50	4.50	16.00
					Ornithine	-31.67 L	5.20	3.00	15.00
					Proline	-30.95 L	14.00	10.00	31.00
					Arginine	-27.65 L	6.40	4.50	13.00
					Leucine	-26.19 L	10.00	7.50	18.00
					Glutamic Acid	-25.38 L	5.20	2.00	15.00

-25%

### High Results

-25	0	25	50	75		% Status	Result	Low	High
					Tryptophan	67.50 H	7.70	3.00	7.00
					Hydroxyproline	57.41 H	2.90	0.00	2.70
					Methionine sulfoxide	39.00 H	0.89	0.00	1.00
					Cystine	25.56 H	5.40	2.00	6.50

-25%

25%



## Basic Status High/Low - Urine Organic Acid on 4/28/2009

**Anna**

**Foundational Wellness Profile April 2009**

Female / Age: 57

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

### Low Results

-80	-60	-40	-20	0		% Status	Result	Low	High	
						-48.88	L	0.90	0.00	80.00
						-40.72	L	237.71	125.00	1340.00
						-35.00	L	0.24	0.00	1.60
						-32.26	L	2.60	1.50	7.70
						-32.05	L	0.07	0.00	0.39
						-31.50	L	9.28	2.60	38.70
						-29.82	L	373.20	175.00	1157.00
						-27.83	L	43.08	30.00	89.00
						-25.00	L	0.30	0.00	1.20
						-25.00	L	0.15	0.00	0.60

-25%

### High Results

-50	0	50	100	150		% Status	Result	Low	High	
						1033.33	H	0.65	0.00	0.06
						713.39	H	1876.00	166.00	390.00
						395.45	H	24.50	0.00	5.50
						148.40	H	4.96	0.00	2.50
						98.00	H	0.07	0.00	0.05
						91.67	H	2.55	0.00	1.80
						89.44	H	0.99	0.00	0.71
						86.43	H	9.55	0.00	7.00
						70.00	H	0.84	0.00	0.70
						58.05	H	4.43	0.00	4.10
						46.55	H	1.40	0.00	1.45
						46.52	H	90.05	36.00	92.00
						42.86	H	0.65	0.00	0.70
						33.00	H	0.83	0.00	1.00
						30.00	H	0.40	0.00	0.50
						30.00	H	48.00	0.00	60.00
						25.56	H	3.14	1.10	3.80

-25%

25%

# Basic Status Alphabetic - Plasma Amino Acid on 4/29/2009

**Anna**

**Foundational Wellness Profile April 2009**

Female / Age: 57

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

-100	-50	0	50	100	% Status	Result	Low	High	
		█			1-Methylhistidine	-8.67	0.62	0.00	1.50
		█			3-Methylhistidine	18.89	3.10	0.00	4.50
		█			a-Amino adipic Acid	-6.67	0.13	0.00	0.30
		█			a-Amino-N-Butyric Acid	-6.00	1.90	0.80	3.30
		█			Alanine	-19.23	34.00	22.00	61.00
	█	█			<b>Ammonia</b>	<b>-42.33</b>	<b>L 2.30</b>	0.00	30.00
		█			Anserine	-9.00	0.08	0.00	0.20
		█			<b>Arginine</b>	<b>-27.65</b>	<b>L 6.40</b>	4.50	13.00
	█	█			<b>Asparagine</b>	<b>-60.00</b>	<b>L 3.10</b>	3.50	7.50
	█	█			<b>Asparagine/Aspartate</b>	<b>-40.81</b>	<b>L 16.00</b>	7.50	100.00
	█	█			<b>Aspartic Acid</b>	<b>-47.24</b>	<b>L 0.19</b>	0.15	1.60
		█			b-Alanine	-14.00	0.36	0.00	1.00
		█			b-Aminoisobutyric Acid	-4.00	0.23	0.00	0.50
		█			Carnosine	-5.50	0.09	0.00	0.20
		█			Citrulline	-22.73	2.80	1.60	6.00
		█			Cystathionine	-19.50	0.06	0.00	0.20
		█			<b>Cystine</b>	<b>25.56</b>	<b>H 5.40</b>	2.00	6.50
		█			Ethanolamine	4.55	0.80	0.20	1.30
		█			GABA	0.00	0.10	0.00	0.20
		█			<b>Glutamic Acid</b>	<b>-25.38</b>	<b>L 5.20</b>	2.00	15.00
	█	█			<b>Glutamine</b>	<b>-57.41</b>	<b>L 34.00</b>	36.00	63.00
	█	█			<b>Glutamine/Glutamate</b>	<b>-52.19</b>	<b>L 6.50</b>	8.50	100.00
	█	█			<b>Glycine</b>	<b>-74.29</b>	<b>L 6.50</b>	15.00	50.00
	█	█			<b>Histidine</b>	<b>-56.00</b>	<b>L 4.70</b>	5.00	10.00
		█			<b>Homocystine</b>	<b>-36.00</b>	<b>L 0.01</b>	0.00	0.10
		█	█		<b>Hydroxyproline</b>	<b>57.41</b>	<b>H 2.90</b>	0.00	2.70
		█			<b>Isoleucine</b>	<b>-43.65</b>	<b>L 4.10</b>	3.70	10.00
		█			<b>Leucine</b>	<b>-26.19</b>	<b>L 10.00</b>	7.50	18.00
		█			<b>Lysine</b>	<b>-40.91</b>	<b>L 16.00</b>	15.00	26.00
		█			Methionine	-22.73	1.40	0.80	3.00
		█	█		<b>Methionine sulfoxide</b>	<b>39.00</b>	<b>H 0.89</b>	0.00	1.00
		█			<b>Ornithine</b>	<b>-31.67</b>	<b>L 5.20</b>	3.00	15.00
		█			<b>Phenylalanine</b>	<b>-40.00</b>	<b>L 4.50</b>	4.00	9.00
		█			<b>Phosphoethanolamine</b>	<b>-32.61</b>	<b>L 0.24</b>	0.08	1.00
	█	█			<b>Phosphoserine</b>	<b>-66.67</b>	<b>L 0.01</b>	0.01	0.03
		█			<b>Proline</b>	<b>-30.95</b>	<b>L 14.00</b>	10.00	31.00
		█			Sarcosine	23.75	0.59	0.00	0.80
	█	█			<b>Serine</b>	<b>-68.00</b>	<b>L 4.20</b>	6.00	16.00
		█			<b>Taurine</b>	<b>-32.61</b>	<b>L 6.50</b>	4.50	16.00
	█	█			<b>Threonine</b>	<b>-63.57</b>	<b>L 6.10</b>	8.00	22.00
		█	█		<b>Tryptophan</b>	<b>67.50</b>	<b>H 7.70</b>	3.00	7.00
		█			<b>Tyrosine</b>	<b>-36.67</b>	<b>L 4.80</b>	4.00	10.00
	█	█			<b>Urea</b>	<b>-48.41</b>	<b>L 210.00</b>	200.00	830.00
		█			<b>Valine</b>	<b>-33.33</b>	<b>L 16.00</b>	13.00	31.00
	-25%	25%			<b>Total Status Deviation</b>	<b>33.85</b>			
					<b>Total Status Skew</b>	<b>-23.09</b>			

## Basic Status Alphabetic - Blood Test on 4/29/2009

Anna

Foundational Wellness Profile April 2009

Female / Age: 57

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

-100	-50	0	50	100	% Status	Result	Low	High
					0.16	1.55	1.00	2.10
		█			10.00	4.50	3.60	5.10
		█			9.79	91.00	33.00	130.00
	█	█			<b>-30.00 L</b>	<b>10.40</b>	8.00	20.00
		█			16.67	19.00	7.00	25.00
	█	█	█	█	<b>48.99 H</b>	<b>21.84</b>	6.00	22.00
	█	█			<b>-44.30 L</b>	<b>11.40</b>	0.00	200.00
	█	█			<b>-40.00 L</b>	<b>0.20</b>	0.00	2.00
		█			0.00	0.70	0.20	1.20
		█			<b>25.00 H</b>	<b>9.80</b>	8.60	10.20
		█			0.00	2.80	2.30	3.30
		█			<b>25.00 H</b>	<b>107.00</b>	98.00	110.00
		█			24.17	229.00	140.00	260.00
		█			0.00	27.00	21.00	33.00
		█			4.00	0.87	0.60	1.10
		█			-20.19	159.60	15.00	500.00
		█			-15.00	2.80	0.00	8.00
		█	█	█	<b>39.47 H</b>	<b>400.00</b>	230.00	420.00
		█			<b>-25.00 L</b>	<b>2.00</b>	1.40	3.80
		█			-12.69	28.00	3.00	70.00
		█			-8.82	2.90	2.20	3.90
		█	█	█	<b>61.76 H</b>	<b>103.00</b>	65.00	99.00
		█			-24.55	51.00	37.00	92.00
		█			<b>29.00 H</b>	<b>42.90</b>	35.00	45.00
		█			<b>34.21 H</b>	<b>14.90</b>	11.70	15.50
		█			11.67	114.00	40.00	160.00
		█			-11.54	170.00	120.00	250.00
		█	█	█	<b>89.71 H</b>	<b>157.00</b>	62.00	130.00
	█	█			<b>-38.44 L</b>	<b>1202.70</b>	850.00	3900.00
	█	█			<b>-32.06 L</b>	<b>21.10</b>	15.00	49.00
		█			<b>27.25 H</b>	<b>31.63</b>	27.00	33.00
		█			18.30	34.73	32.00	36.00
		█			5.41	91.08	80.00	100.00
		█			-15.11	461.70	200.00	950.00
		█			12.31	8.10	0.00	13.00
		█			-12.47	3864.60	1500.00	7800.00
		█			20.95	67.80	38.00	80.00
		█			0.00	3.50	2.50	4.50
		█			0.00	4.40	3.50	5.30
		█			7.14	7.40	6.20	8.30
		█			20.00	4.71	3.80	5.10
		█			6.00	24.00	10.00	35.00
		█			<b>35.29 H</b>	<b>35.00</b>	6.00	40.00
		█			-4.55	140.00	135.00	146.00
		█			<b>34.62 H</b>	<b>33.00</b>	22.00	35.00
		█			<b>-30.00 L</b>	<b>6.10</b>	4.50	12.50
		█			20.67	106.00	0.00	150.00
	█	█			<b>-127.86 L</b>	<b>0.01</b>	1.10	2.50
		█			<b>38.89 H</b>	<b>6.50</b>	2.50	7.00
		█			-22.86	5.70	3.80	10.80
	-25%	25%			<b>Total Status Deviation</b>	<b>23.40</b>		
					<b>Total Status Skew</b>	<b>3.13</b>		

## Basic Status Alphabetic - Urine Organic Acid on 4/28/2009

**Anna**

**Foundational Wellness Profile April 2009**

Female / Age: 57

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

-100	-50	0	50	100	% Status	Result	Low	High	
					<b>98.00</b>	<b>H</b>	<b>0.07</b>	<b>0.00</b>	<b>0.05</b>
					20.73		4.40	1.50	5.60
					8.49		3.10	0.00	5.30
					-4.39		2.60	0.00	5.70
					<b>-25.00</b>	<b>L</b>	<b>0.30</b>	<b>0.00</b>	<b>1.20</b>
					<b>-31.50</b>	<b>L</b>	<b>9.28</b>	<b>2.60</b>	<b>38.70</b>
					<b>-32.05</b>	<b>L</b>	<b>0.07</b>	<b>0.00</b>	<b>0.39</b>
					<b>-25.00</b>	<b>L</b>	<b>0.15</b>	<b>0.00</b>	<b>0.60</b>
					<b>148.40</b>	<b>H</b>	<b>4.96</b>	<b>0.00</b>	<b>2.50</b>
					20.20		84.24	0.00	120.00
					<b>-40.72</b>	<b>L</b>	<b>237.71</b>	<b>125.00</b>	<b>1340.00</b>
					<b>-27.83</b>	<b>L</b>	<b>43.08</b>	<b>30.00</b>	<b>89.00</b>
					<b>-29.82</b>	<b>L</b>	<b>373.20</b>	<b>175.00</b>	<b>1157.00</b>
					0.00		16.00	0.00	32.00
					<b>395.45</b>	<b>H</b>	<b>24.50</b>	<b>0.00</b>	<b>5.50</b>
					-0.91		2.70	0.00	5.50
					<b>46.55</b>	<b>H</b>	<b>1.40</b>	<b>0.00</b>	<b>1.45</b>
					<b>89.44</b>	<b>H</b>	<b>0.99</b>	<b>0.00</b>	<b>0.71</b>
					<b>86.43</b>	<b>H</b>	<b>9.55</b>	<b>0.00</b>	<b>7.00</b>
					10.70		329.01	0.00	542.00
					<b>-32.26</b>	<b>L</b>	<b>2.60</b>	<b>1.50</b>	<b>7.70</b>
					-12.50		2.55	0.00	6.80
					<b>-48.88</b>	<b>L</b>	<b>0.90</b>	<b>0.00</b>	<b>80.00</b>
					<b>46.52</b>	<b>H</b>	<b>90.05</b>	<b>36.00</b>	<b>92.00</b>
					<b>91.67</b>	<b>H</b>	<b>2.55</b>	<b>0.00</b>	<b>1.80</b>
					18.26		1.57	0.00	2.30
					-14.35		0.82	0.00	2.30
					<b>33.00</b>	<b>H</b>	<b>0.83</b>	<b>0.00</b>	<b>1.00</b>
					<b>1033.33</b>	<b>H</b>	<b>0.65</b>	<b>0.00</b>	<b>0.06</b>
					<b>30.00</b>	<b>H</b>	<b>0.40</b>	<b>0.00</b>	<b>0.50</b>
					20.00		0.84	0.00	1.20
					17.20		13.44	0.00	20.00
					<b>70.00</b>	<b>H</b>	<b>0.84</b>	<b>0.00</b>	<b>0.70</b>
					<b>30.00</b>	<b>H</b>	<b>48.00</b>	<b>0.00</b>	<b>60.00</b>
					<b>58.05</b>	<b>H</b>	<b>4.43</b>	<b>0.00</b>	<b>4.10</b>
					-1.47		4.95	0.00	10.20
					10.56		1.09	0.00	1.80
					5.87		10.71	1.10	18.30
					<b>713.39</b>	<b>H</b>	<b>1876.00</b>	<b>166.00</b>	<b>390.00</b>
					<b>-35.00</b>	<b>L</b>	<b>0.24</b>	<b>0.00</b>	<b>1.60</b>
					<b>25.56</b>	<b>H</b>	<b>3.14</b>	<b>1.10</b>	<b>3.80</b>
					<b>42.86</b>	<b>H</b>	<b>0.65</b>	<b>0.00</b>	<b>0.70</b>
					<b>79.10</b>				
					<b>60.08</b>				

## Client Summary Review

Foundational Wellness Profile April 2009

Anna

Female / Age: 57

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### Nutritional Support

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

- |  |  |
|--|--|
| <input type="checkbox"/> 1-Amino Acid Complex<br>8-10 grams daily          | <input type="checkbox"/> 1-Antioxidant Complex<br>See Nutrition Detail |
| <input type="checkbox"/> 1-Detoxification Protocol<br>See Nutrition Detail | <input type="checkbox"/> 1-Increase Fluid Intake<br>6-8 glasses daily  |
| <input type="checkbox"/> 1-Oral Electrolyte - Standard Formula<br>2x daily | <input type="checkbox"/> 1-PS w/Omega 3 FA<br>2x daily                 |
| <input type="checkbox"/> 1-Tyrosine<br>2x daily 500 mg                     | <input type="checkbox"/> 1-Whey Protein<br>See Nutrition Detail        |
| <input type="checkbox"/> 2-Glycine<br>2x daily 500 mg                      | <input type="checkbox"/> H - Billberry<br>1 - 3 times daily            |
| <input type="checkbox"/> H - Garlic<br>1 - 3 times daily                   | <input type="checkbox"/> H - Ginseng (Panax)<br>1 - 3 times daily      |
| <input type="checkbox"/> H - Milk thistle<br>1 - 3 times daily             |  |

### Nutritional Supplements to AVOID

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

Calcium                                      Molybdenum                                      Selenium

### Food Recommendations

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

Apricots, Dried	Artichoke	Black Pepper	Cantaloupe
Cherries	Eggs	Grapefruit	Green Beans
Guava	Haddock	Halibut	Loganberries
Onions	Prunes	Red Peppers	Shellfish
Swiss Chard			

### Foods to AVOID

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

Brazil Nuts	Cucumber	Dairy Products	Green Tea
Hydrogenated Fats	Soybeans	Turkey	



**Anna**

Female / Age: 57

**Results Missing From Test**

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

Lactate                                      b-Hydroxybutyrate                                      b-Hydroxyisovalerate                                      a-Keto-b-methylvalerate

**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.

<b>Panel Name</b>	<b>PSD</b>	<b>PSS</b>
Intestinal Dysbiosis	204.08%	183.11%
Liver Detox Indicators	164.30%	155.97%
Gluconeogen	58.52%	-31.52%
Thyroid	51.39%	-21.75%
Immune Metabolites	45.07%	-45.07%
CNS Metabolism	43.50%	-30.40%
Detoxification Markers	43.30%	-34.79%
Neuroendocrine Metab	42.31%	-42.31%
Urea Cycle Metabolites	42.16%	-42.16%
Essential Amino Acid	42.15%	-28.65%
Carbohydrate Metabolism	41.52%	16.52%
Lipid	39.77%	27.50%
Magnesium Dependents	38.92%	-24.41%
Ammonia/Energy	37.42%	-37.42%
Fat Metabolism	34.94%	-28.16%
CAC Cycle Ratios	34.54%	11.98%
Neurotransmitters	34.34%	20.85%
Energy Production	32.72%	7.31%
B-Complex Markers	32.16%	3.60%
Connective Tissue	30.72%	-1.62%
Hepatic Metabolism	30.43%	-23.13%
BCAA Catabolism	28.53%	-28.53%
Nitrogen	27.14%	27.14%
Cardiac Marker	26.65%	15.81%
Differential Count	26.10%	-26.10%
Anti Oxidant Status	25.43%	15.43%

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

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

**Phenylacetate (1033.33%)**

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.

**Sulfate (713.39%)**

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

**D-Lactate (395.45%)**

A high reading of D-lactate may indicate that there may be an overgrowth of Lactobacillus acidophilus, plantarum or salivarius. High dietary carbohydrate intake or antibiotic use are other possibilities.

**Oxidative Damage (212.67%)**

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

**Benzoate ( 148.40%)**

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

**Ultra-Sensitive TSH (-127.86%)**

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. Decreased levels of TSH are seen in hyperthyroidism and secondary and tertiary hypothyroidism.

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

Anabolic Steroids, Corticosteroids

**2-Methylhippurate ( 98.00%)**

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. Also, the ingestion of alcohol is contraindicated as it will inhibit the persons ability to detoxify these solvents.

**Kynurenate ( 91.67%)**

A high reading of this by-product of the breakdown of the amino acid tryptophan is consistent with a vitamin B6 deficiency, possible inflammatory processes, interferon-gamma stimulated macrophages or excessive tryptophan supplementation (not 5-HTP). Abnormally high levels can cause and increase in pain sensations and may, in multiple sclerosis patients, be a marker for an exacerbation period.

**LDL ( 89.71%)**

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 arteriosclerosis. Due to the expense of direct LDL measurement, a calculation known as the Friedewald formula is used (Total Cholesterol - HDL Cholesterol - Triglycerides/5). When Triglyceride levels are greater than 400, this method is not accurate. Increased levels are seen in high cholesterol diets, nephrotic syndromes, multiple myeloma, hepatic obstruction or disease, anorexia nervosa, diabetes, chronic renal failure, and premature coronary heart disease.

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

Clofibrate

**Fumarate ( 89.44%)**

Elevated fumarate may be indicative of a Coenzyme Q10 deficiency or if citrate, malate, and a-ketoglutarate are also elevated then suspect a cytochrome C oxidase deficiency.

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

Lithium Carbonate

**Glucarate ( 86.43%)**

Glucarate is a by-product of oxidation in the Phase 1 detoxification process involving cytochrome p450. Elevations may be indicative of toxic exposures, especially pesticides. Glycine and N-acetyl-cysteine are helpful supplements in reducing this reading. Elevations may also be seen in alcoholism, solvent exposure, excessive estrogen and/or testosterone and drugs such as aspirin, lorazepam, digoxin and morphine.

**Glycine (-74.29%)**

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.

**CA Cycle Phase 3 ( 71.30%)**

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

Anna

Female / Age: 57

**p-Hydroxyphenyllactate ( 70.00%)**

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

**Serine (-68.00%)**

Serine is a key amino acid can be converted to glycine and vice versa. 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.

**Tryptophan ( 67.50%)**

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

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

Turkey

**Phosphoserine (-66.67%)**

No information available.

**Threonine (-63.57%)**

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

**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, Clonidine, Corticosteroids, Cortisone, Dextrothyroxine, Epinephrine, Estrogens, Furosemide, Gemfibrozil, Haloperidol, Hydralazine, Imipramine, Indomethacin, Levodopa, Lithium Carbonate, Mercaptopurine, Methyldopa, Morphine, Nifedipine, Nitrofurantoin, Phenelzine, Phenylbutazone, Phenytoin, Polythiazide, Pravastatin, Prednisone, Protriptyline, Reserpine

**Asparagine (-60.00%)**

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

**Pyruvate ( 58.05%)**

Pyruvate is the end product of glucose metabolism. An elevated level may be indicative of a fundamental deficiency of B-complex vitamins and lipoic acid. High results are also seen in anorexia and other undereating disorders.

**Hydroxyproline ( 57.41%)**

May be indicative of bone resorption problems due to increased osteocalcin secretion. Hydroxyproline is a component of collagen. Vitamin C and iron are necessary cofactors.

**Glutamine (-57.41%)**

Glutamine is abundant in both blood and cerebrospinal fluid and easily passes the blood-brain barrier. This amino acid also acts as a detoxifier of ammonia from the brain and may be a protector against certain bacteria and alcohol poisoning. A low level may be indicative of poor absorption of proteins, protein malnutrition, incomplete digestion (requiring protease enzymes) or chronic alcoholism.

**Histidine (-56.00%)**

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

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

Salicylates, Steroids

Anna

Female / Age: 57

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**CA Cycle Phase 6 ( 55.72%)**

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.

**Glutamine/Glutamate ( -52.19%)**

This may indicate specimen decay due to poor handling, heating or improperly preserved or gastrointestinal integrity is compromised.

**Additional Tests**

The following additional lab tests may help in diagnosis.

**Consider ordering Environmental Pollutants Biomarker urine test.**

*Rationale: % Status of Glucose is > 50%*

**Consider ordering Free-T3, Free-T4, Total T4, T3-Uptake**

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

**Consider ordering glycohemoglobin**

*Rationale: % Status of Glucose is > 50%*

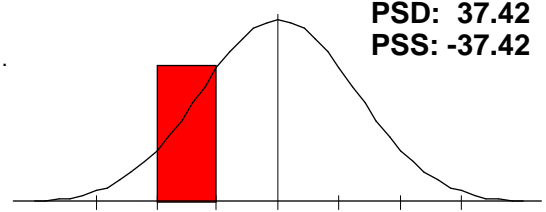
**Consider ordering PTH profile**

*Rationale: Panel Thyroid Status Deviation is > 50%*

**Ammonia/Energy**

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

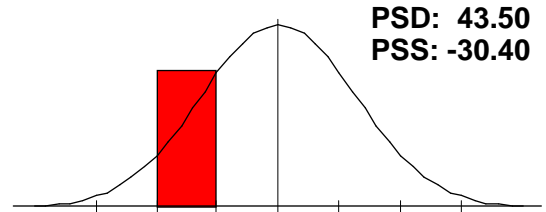
A panel profile such as this may be indicative of inadequate protein intake, poor absorption or poor quality protein intake.



**CNS Metabolism**

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

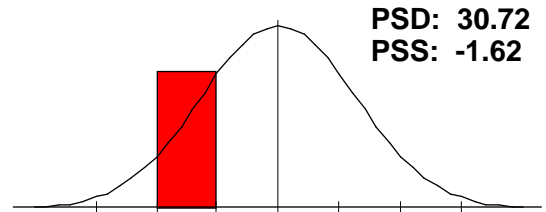
The panel profile seen here may be indicative of poor central nervous system functioning including memory loss, fatigue, poor concentration.



**Connective Tissue**

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

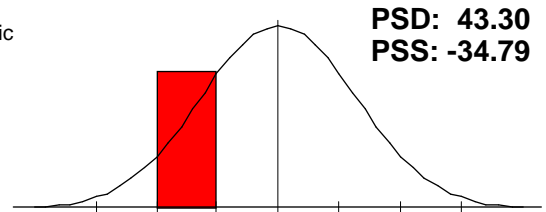
A profile such as this may be indicative of poor collagen and other tissue formation.



**Detoxification Markers**

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

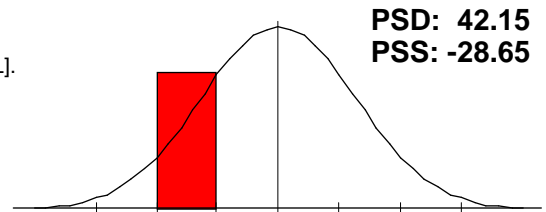
This panel contains amino acids critical for proper detoxification. A low reading may be indicative of an inability to properly detoxify. Personalized supplementation is suggested.



**Essential Amino Acid**

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

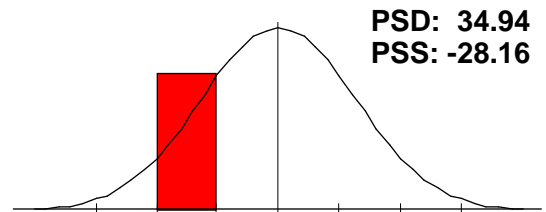
The panel profile seen here indicates a low density of essential amino acids. Since they cannot be synthesized in the human body, these building blocks must be taken in via diet or supplements.



**Fat Metabolism**

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

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.

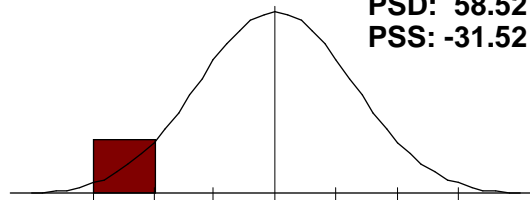


**Gluconeogen**

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

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

PSD: 58.52  
PSS: -31.52

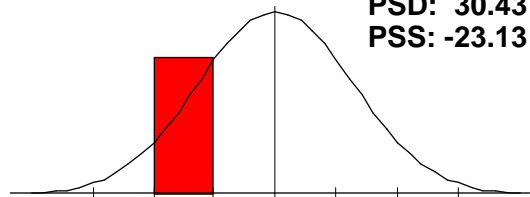


**Hepatic Metabolism**

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

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

PSD: 30.43  
PSS: -23.13

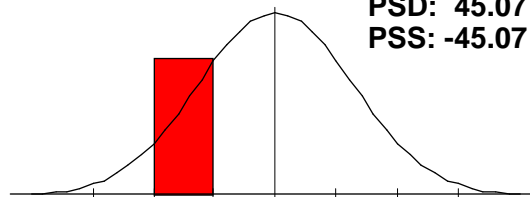


**Immune Metabolites**

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

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

PSD: 45.07  
PSS: -45.07

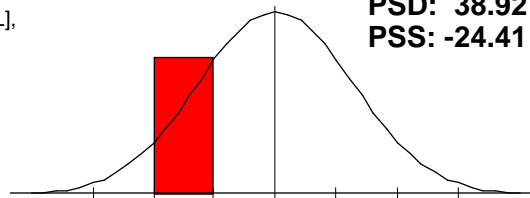


**Magnesium Dependents**

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

The amino acids in this panel are dependent on magnesium for their metabolism. a low reading is indicative of a possible magnesium deficiency. Assessing magnesium levels through appropriate laboratory tests is suggested.

PSD: 38.92  
PSS: -24.41

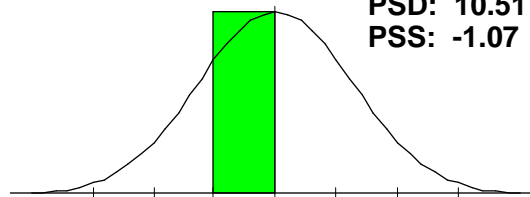


**Muscle Metabolites**

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

Amino acids are critical in building muscle tissue and this panel profile indicates adequate amounts of the necessary elements.

PSD: 10.51  
PSS: -1.07

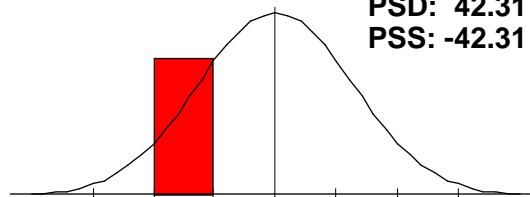


**Neuroendocrine Metab**

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

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

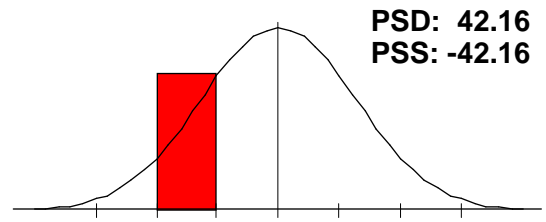
PSD: 42.31  
PSS: -42.31



**Urea Cycle Metabolites**

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

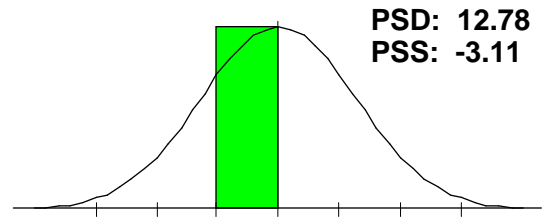
This panel contains amino acids that are related to the urea cycle which is an important metabolic process to remove excess ammonia from the system. Targeted and personalized supplementation is suggested.



**Adrenal Function**

Cholesterol, Eosinophils, 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.



**Allergy**

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

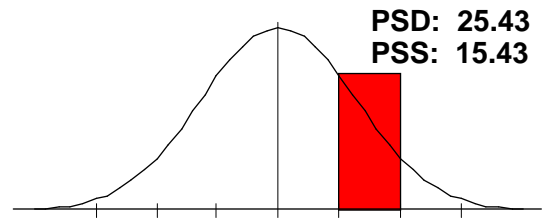
This panel is used to assess the individual's response to potential allergens. Abnormalities in this panel may indicate the need for additional allergy testing. The deviation was below 25% so no abnormalities were found.



**Anti Oxidant Status**

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

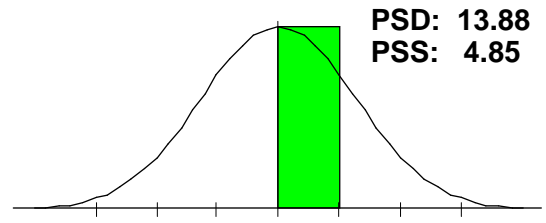
This panel profile may indicate that the patient needs to increase their intake of antioxidants and make appropriate lifestyle changes (smoking, alcohol, reduce stress, etc.). A varied, broad spectrum of antioxidants is preferable to one or two alone.



**Athletic Potential**

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

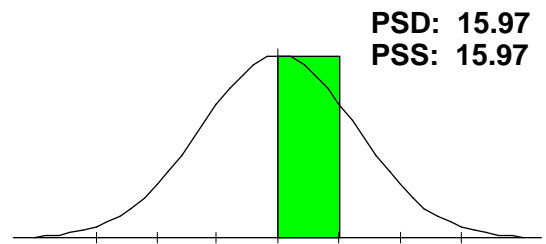
This panel is used to help assess athletic potential. Keeping this panel in a normal range may be helpful in improving athletic performance and reducing the risk of injury. The deviation was below 25% so no abnormalities were found.



**Bone/Joint**

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

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.

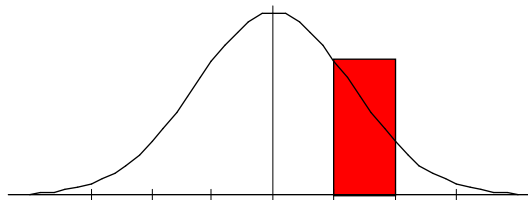


**Cardiac Marker**

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

**PSD: 26.65**  
**PSS: 15.81**

The profile shown here indicates that this individual may be at a greater risk for coronary heart disease than the general population. A review of dietary, environmental and personal habits should be done and appropriate lifestyle changes made. If both triglycerides and cholesterol are elevated, a regime of exercise and dietary changes are more likely to exhibit benefits.

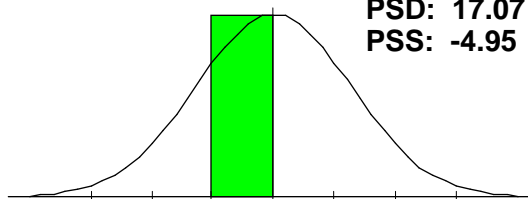


**Cellular Distortions**

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

**PSD: 17.07**  
**PSS: -4.95**

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.

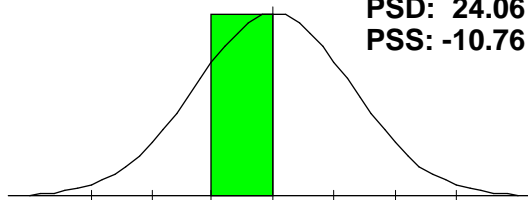


**Differential**

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

**PSD: 24.06**  
**PSS: -10.76**

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.

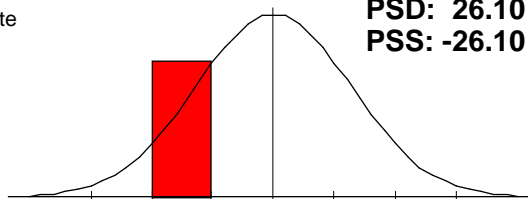


**Differential Count**

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

**PSD: 26.10**  
**PSS: -26.10**

The negative Panel Status Skew may be due to the immune system being at rest if the Differential Panels Deviation is less than 25%, if it is higher than 25% than suspect a weakened or compromised immune system.

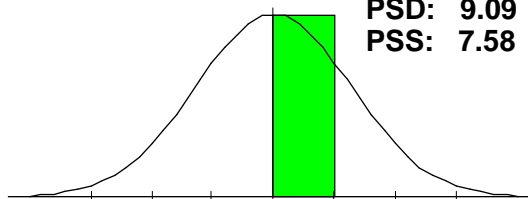


**Electrolyte**

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

**PSD: 9.09**  
**PSS: 7.58**

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.





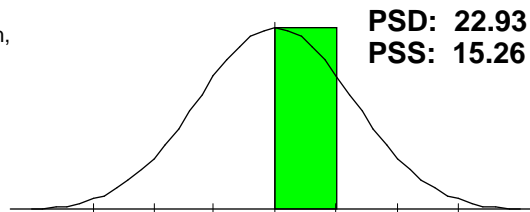
Anna

Female / Age: 57

**Gastrointest. Function**

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

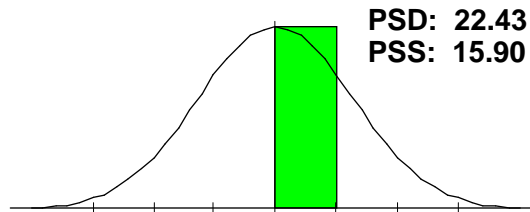
This panel may be helpful in assessing gastrointestinal health. Keeping the elements listed in a normal range may improve digestion and metabolism of proteins, fats and carbohydrates. The deviation was below 25% so no abnormalities were found.



**Hematology**

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

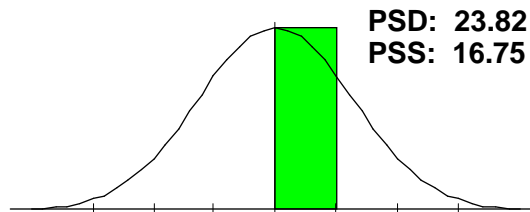
The hematology panel assesses the production of red blood cells and their function. The deviation was below 25% so no abnormalities were found.



**Inflammatory Process**

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

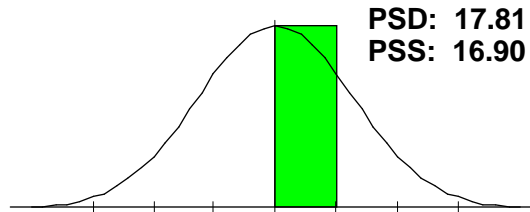
This panel may be helpful in assessing any inflammatory processes that may be occurring in the body. The deviation was below 25% so no abnormalities were found.



**Kidney Function**

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

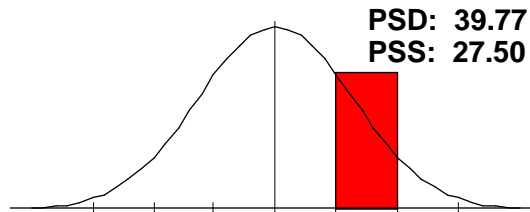
This panel may be helpful in assessing kidney function. It is important to keep the elements of this subset in balance to help the body eliminate waste material. The deviation was below 25% so no abnormalities were found.



**Lipid**

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

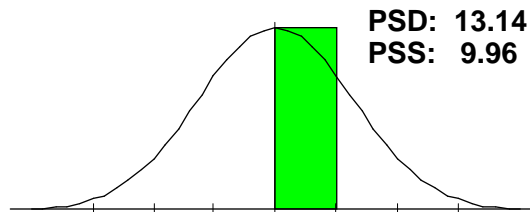
The panel profile seen here suggests that the patient may be at a greater risk for coronary heart disease than the general population. A dietary evaluation should be undertaken as well to educate the patient about saturated and trans fats.



**Liver Function**

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

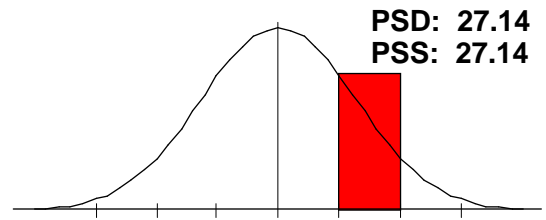
Assessing liver function is important in determining the individual's ability to detoxify itself as well as processing amino acids and other important biological processes. The deviation was below 25% so no abnormalities were found.



**Nitrogen**

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

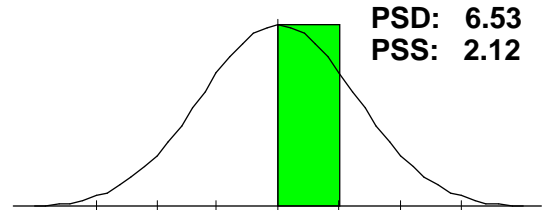
The panel profile seen here indicates the need for an assessment of the area of abnormality as well as ascertaining renal function, dietary intake, dysbiosis, congestive heart failure (this list is not all-inclusive).



**Protein**

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

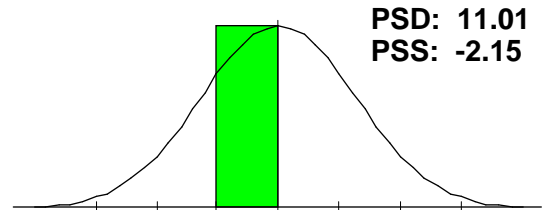
Proteins are the basic building blocks of hormones, muscle, neurotransmitters, immune systems responses and more. Assessing their competency is crucial in achieving optimal wellness. The deviation was below 25% so no abnormalities were found.



**Pulmonary Function**

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

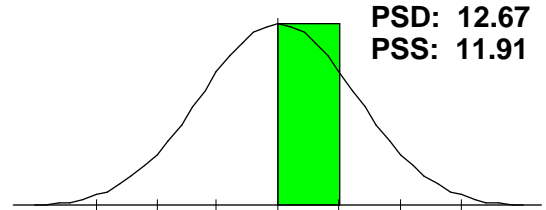
This panel may be helpful in assessing lung and respiratory function. The deviation was below 25% so no abnormalities were found.



**Ratios**

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

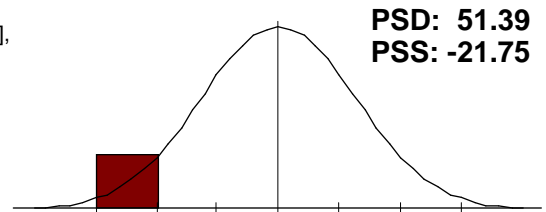
This panel may be helpful in determining the general balance of the overall chemistry of the individual. The deviation was below 25% so no abnormalities were found.



**Thyroid**

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

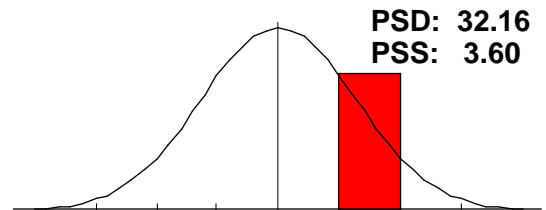
This profile may indicate the need for a careful review of the individual markers in order to determine causative factors.



**B-Complex Markers**

a-Ketoisovalerate[L], a-Ketoisocaproate[L], Methylmalonate, Formiminoglutamic Acid[H], Xanthurenate[H].

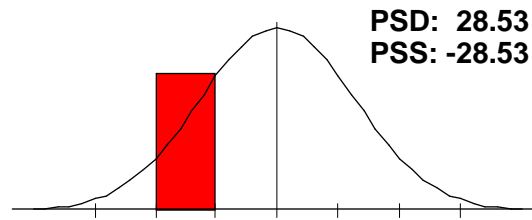
This panel profile may reflect a low level of certain B-complex vitamins. Review the Nutritional Support section to ascertain which nutrient are necessary.



**BCAA Catabolism**

a-Ketoisovalerate[L], a-Ketoisocaproate[L].

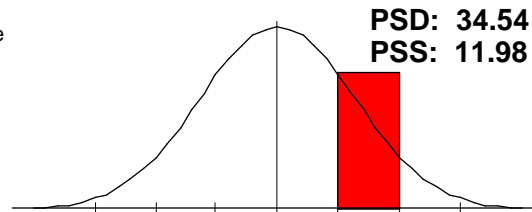
This panel abnormality may be due to poor amino acid metabolism or a lack of quality protein in the diet. Supplementation of high grade amino acids may be necessary.



**CAC Cycle Ratios**

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

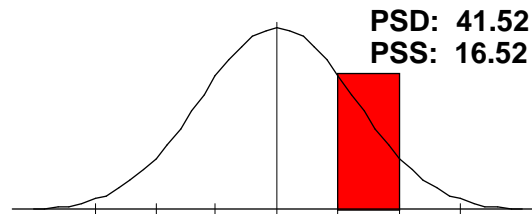
This panel reflects steps of the citric acid cycle. A high reading may be indicative of poor energy production and/or vitamin, mineral and amino acid deficiencies.



**Carbohydrate Metabolism**

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

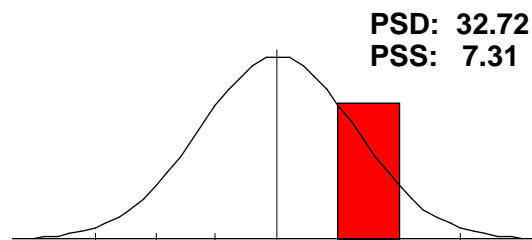
The panel profile seen here may be due to impaired carbohydrate metabolism, inefficient utilization or poor mobilization of carbohydrates. Often, B-complex vitamins are helpful in balancing these results. See Nutritional Support for further details.



**Energy Production**

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

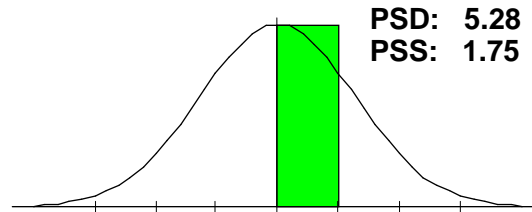
This panel profile result may be due to a breakdown in the Citric Acid Cycle. Supplementation with specific amino acid combinations and precursor vitamins and minerals may help to reverse this imbalance. Review the Nutritional Support section for further details.



**Fatty Acid Metabolism**

Adipate, Suberate, Ethylmalonate.

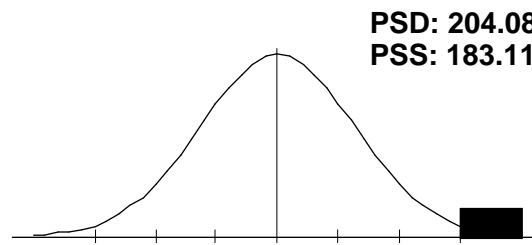
These urinary markers give us a picture into the metabolism of fatty acids.



**Intestinal Dysbiosis**

p-Hydroxyphenyllactate[H], Phenylacetate[H], Phenylpropionate[H], Tricarballylate[L], Indican[L], p-Hydroxybenzoate, D-Lactate[H], D-Arabini.

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.



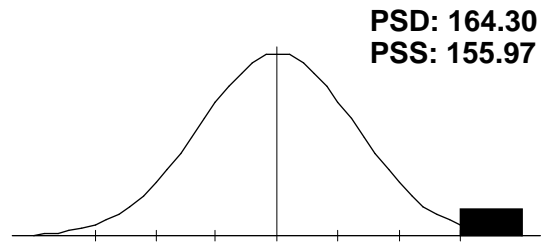
Anna

Female / Age: 57

**Liver Detox Indicators**

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

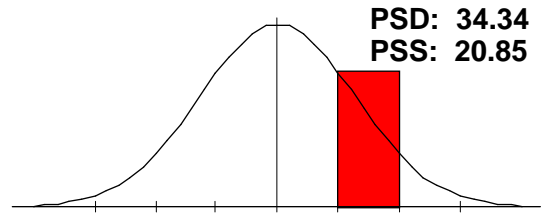
This panel profile may be due in part to environmental toxins, improper regulation of cell growth, hereditary deficiencies, and a depressed ability of the liver to detoxify itself. A program of detoxification may be helpful in this case. Review Nutritional Status for additional recommendations.



**Neurotransmitters**

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

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



## Drug Interactions

Anna

Foundational Wellness Profile April 2009

Female / Age: 57

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(4)	Acetazolamide(3)	Albuterol
Allopurinol	Amitriptyline(2)	Ammonium Chloride	Ampicillin(3)
Anabolic Steroids(3)	Antacids	Aspirin(7)	Busulfan
Carbamazepine	Chlorothiazide	Chlorpromazine(2)	Clindamycin
Clofibrate(2)	Clonidine(2)	Codeine	Colchicine(2)
Corticosteroids(4)	Cortisone(3)	Coumarin	Desipramine
Dextrothyroxine	Diazepam	Epinephrine(2)	Erythromycin
Estrogens(2)	Fluorides	Fluphenazine	Flurazepam
Furosemide(3)	Gemfibrozil	Gentamicin(2)	Griseofulvin
Guanethidine(2)	Haloperidol(3)	Hydralazine(3)	Hydrocortisone(2)
Hydroxyurea(2)	Ibuprofen(3)	Imipramine(2)	Indomethacin(3)
Insulin	Itraconazole(2)	Kanamycin	Ketocanazole
Levodopa(3)	Levothyroxine	Lincomycin	Lithium Carbonate(6)
Lovastatin	MAO Inhibitors	Mercaptopurine(3)	Methimazole
Methotrexate(3)	Methyldopa(4)	Morphine(2)	Naproxen
Nifedipine(2)	Nitrofurantoin(2)	Paramethadione	Penicillamine
Penicillin	Phenelzine(3)	Phenobarbital	Phenylbutazone(4)
Phenytoin(2)	Piroxicam(2)	Polythiazide(4)	Pravastatin(3)
Prednisone(4)	Procainamide(2)	Progesterone(2)	Progestins(2)
Propranolol(3)	Protriptyline(2)	Reserpine(3)	Rifampin(3)
Salicylates	Salicylates(2)	Sildenafil(2)	Simvastatin
Spectinomycin	Steroids	Sulfamethizole	Sulfamethoxazole(3)
Sulfasalazine	Sulfisoxazole	Tadalafil(2)	Tamoxifen
Tetracycline	Triameterene	Trimethadione	Valproic Acid(2)
Vardenafil(2)			

Anna

Female / Age: 57

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-Amino Acid Complex** 8-10 grams daily

**AMINO ACID COMPLEX**

A pattern suggesting amino acid insufficiency may be due to inadequate protein intake, chronic illness or malabsorption. Review dietary intake, assess bacterial flora for adequate balance and the presence of pathogens, and evaluate digestive/pancreatic function. Intake of an individualized free-form amino acid supplement with appropriate nutrient cofactors (such as My AminoPlex from KTS) is advised. Amino acid supplementation often should at least be concurrent with (or precede) efforts to address imbalanced gastrointestinal flora. A sufficiency of amino acids is essential to produce healthy gut epithelial tissue.

	<b><u>Rationale</u></b>	
<b><u>Decreased</u></b>	<b><u>Normal</u></b>	<b><u>Increased</u></b>
Isoleucine		B.U.N./Creatinine Ratio
Leucine		
Glutamine		

**1-Antioxidant Complex** See Nutrition Detail

**ANTIOXIDANT PROTOCOL**

When certain oxidative test markers appear, the following protocol can be followed: a Broad Spectrum Antioxidant which should include CoEnzyme Q10 (2 times daily, Vitamins A and E as well as Selenium (2 times daily) and Vitamin C (1000 mg 2 times daily). Vitamin E should only be consumed with the advice of a physician if currently taking Coumadin or other blood thinning medications.

**COENZYME Q10**

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

**VITAMIN A/MIXED-CAROTENES**

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

**VITAMIN E**

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

**SELENIUM (Se)**

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

**VITAMIN C**

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

<b><u>Decreased</u></b>	<b><u>Normal</u></b>	<b><u>Increased</u></b>
		Oxidative Damage

**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

<b><u>Decreased</u></b>	<b><u>Normal</u></b>	<b><u>Increased</u></b>
	Hippurate	2-Methylhippurate

## Nutrition - Detail

Foundational Wellness Profile April 2009

**Anna**

Female / Age: 57

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-Increase Fluid Intake** 6-8 glasses daily

#### **INCREASE FLUID INTAKE**

When the concentration of Hemoglobin, Hematocrit and Red Blood Cells are increased, it is a good indicator of the need to increase fluid intake. Fluid intake should include a well rounded group of fluids including, but not limited to water.

Decreased

#### **Rationale**

Normal

R.B.C.

Increased

Hematocrit  
Hemoglobin

### **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

Potassium  
CO2  
Sodium

Increased

### **1-PS w/Omega 3 FA** 2x daily

#### **PHOSPHATIDYLSERINE W/OMEGA 3 FA**

Phosphatidylserine in combination with omega 3 fatty acids is an ideal way to support brain function, improve memory, control cortisol, improve mood, and enhance energy production in the brain.

Adults

PS - 100 mg twice daily

Omega 3 fatty acids - 1100 mgs twice daily

Children

PS - 100 mg daily

Omega 3 fatty acids - 1100 mgs daily

Decreased

Serine

Normal

Increased

### **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

Homovanillate

Normal

Increased

Vanilmandelate

### **1-Whey Protein** See Nutrition Detail

#### **WHEY PROTEIN**

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

Decreased

a-Hydroxybutyrate

Normal

Increased

Pyroglutamate

### **2-Glycine** 2x daily 500 mg

#### **GLYCINE**

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

Decreased

Normal

Hippurate

Increased

Benzoate

### **H - Bilberry** 1 - 3 times daily

#### **BILBERRY**

Bilberry (*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.

Decreased

Normal

Iron, Total  
Triglycerides

Increased

Glucose

## Nutrition - Detail

Foundational Wellness Profile April 2009

Anna

Female / Age: 57

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.

### 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

### ***Rationale***

Normal

Cholesterol

Increased

LDL

### 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 - Milk thistle 1 - 3 times daily

MILK THISTLE

The herb milk thistle (Silybum marianum) has been reported to be effective in improving liver function. As with all herbs, caution should be taken with its use. Use only under the direction of a health care practitioner if you have chronic liver disease.

Decreased

Normal

sGOT

Increased

sGPT

## AVOID THE FOLLOWING SUPPLEMENTS

### AVOID Calcium

CALCIUM (Ca)

Major cation partly responsible for cell membrane structure and function required for cardiac contraction, regulates hormones, heart respiration, cell division and body fluid bufferings.

Decreased

Normal

Increased

Calcium

### AVOID Molybdenum

MOLYBDENUM (Mo)

Vital constituent of xanthine oxidase (uric acid production), aldehyde and sulfate oxidase. Functions in transfer of electrons for redox process and completion of sulfur amino acid catabolism. It is also involved in hemoglobin synthesis. Molybdenum also inhibits absorption Cu and Fe.

Decreased

Normal

Increased

Uric Acid

### AVOID Selenium

SELENIUM (Se)

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

Decreased

Normal

Thyroxine (T4)

Increased

T-3 Uptake



## Clinical Correlation

Foundational Wellness Profile April 2009

Anna

Female / Age: 57

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.

### Detoxification Impairment ()

83.33% (5 of 6)

**Decreased**

713.39 Sulfate

**Normal**

**Increased**

70.00 p-Hydroxyphenyllactate  
33.00 Orotate  
98.00 2-Methylhippurate  
86.43 Glucarate  
30.00 Pyroglutamate

The body's ability to detoxify itself may be impaired.

### Collagen Production Imbalance (270.1)

66.67% (2 of 3)

**Decreased**

-30.95 Proline

**Normal**

**Increased**

57.41 Hydroxyproline  
n/a Hydroxylysine

### Review Cardiovascular Risk Factors ()

66.67% (4 of 6)

**Decreased**

**Normal**  
-24.55 HDL-Cholesterol

**Increased**

24.17 Cholesterol  
61.76 Glucose  
20.67 Triglycerides  
38.89 Uric Acid  
89.71 LDL

Review family history or personal history of cardiovascular risk factors such as smoking, excessive alcohol intake, high fat diet, and/or sedentary lifestyle.

## Comparison Progress Report

**Anna**

Female / Age: 57

**Foundational Wellness Profile April 2009**

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

	<b>Status % on:</b>	<b>2/21/2008</b>		<b>4/29/2009</b>		<b>+/- change</b>
GABA		<b>53.80</b>	<b>H</b>	0.00		+ 53.80
Carnosine		<b>50.00</b>	<b>H</b>	-5.50		+ 44.50
Anserine		<b>50.00</b>	<b>H</b>	-9.00		+ 41.00
3-Methylhistidine		<b>49.40</b>	<b>H</b>	18.89		+ 30.51
Hydroxyproline		<b>86.17</b>	<b>H</b>	<b>57.41</b>	<b>H</b>	<b>+ 28.76</b>
Phosphoserine		5.83		<b>-66.67</b>	<b>L</b>	<b>- 60.83</b>
Tryptophan		13.75		<b>67.50</b>	<b>H</b>	<b>- 53.75</b>
Threonine		<b>-38.07</b>	<b>L</b>	<b>-63.57</b>	<b>L</b>	<b>- 25.50</b>
Cystine		0.50		<b>25.56</b>	<b>H</b>	<b>- 25.06</b>

## Comparison Report

Foundational Wellness Profile April 2009

Anna

Female / Age: 57

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:	2/21/2008	4/29/2009
-32.20		-8.67	+	1-Methylhistidine	-32.20 L -8.67
18.89		49.40	+	3-Methylhistidine	49.40 H 18.89
-23.25		-6.67	+	a-Aminoadipic Acid	-23.25 -6.67
-20.40		-6.00	+	a-Amino-N-Butyric Acid	-20.40 -6.00
-19.23		1.58	-	Alanine	1.58 -19.23
-9.00		50.00	+	Anserine	50.00 H -9.00
-27.65		-16.05	-	Arginine	-16.05 -27.65 L
-71.93		-60.00	+	Asparagine	-71.93 L -60.00 L
-47.24		-25.79	-	Aspartic Acid	-25.79 L -47.24 L
				b-Alanine	-10.00 -14.00
				b-Aminoisobutyric Acid	0.00 -4.00
-5.50		50.00	+	Carnosine	50.00 H -5.50
-22.73		-12.71	-	Citrulline	-12.71 -22.73
				Cystathionine	16.25 -19.50
0.50		25.56	-	Cystine	0.50 25.56 H
4.55		28.00	+	Ethanolamine	28.00 H 4.55
0.00		53.80	+	GABA	53.80 H 0.00
-25.38		16.69	-	Glutamic Acid	16.69 -25.38 L
				Glutamine	-64.39 L -57.41 L
-74.29		-50.85	-	Glycine	-50.85 L -74.29 L
-56.00		-41.65	-	Histidine	-41.65 L -56.00 L
-36.00		50.00	+	Homocystine	50.00 H -36.00 L
57.41		86.17	+	Hydroxyproline	86.17 H 57.41 H
				Isoleucine	-45.18 L -43.65 L
-47.75		-26.19	+	Leucine	-47.75 L -26.19 L
-40.91		-29.98	-	Lysine	-29.98 L -40.91 L
-35.53		-22.73	+	Methionine	-35.53 L -22.73
				Ornithine	-31.38 L -31.67 L
-47.80		-40.00	+	Phenylalanine	-47.80 L -40.00 L
-32.61		8.37	-	Phosphoethanolamine	8.37 -32.61 L
-66.67		5.83	-	Phosphoserine	5.83 -66.67 L
				Proline	-33.10 L -30.95 L
-10.00		23.75	-	Sarcosine	-10.00 23.75
-68.00		-50.99	-	Serine	-50.99 L -68.00 L
				Taurine	-27.75 L -32.61 L
-63.57		-38.07	-	Threonine	-38.07 L -63.57 L
13.75		67.50	-	Tryptophan	13.75 67.50 H
-36.67		-11.91	-	Tyrosine	-11.91 -36.67 L
-47.64		-33.33	+	Valine	-47.64 L -33.33 L
				<b>Total Status Deviation</b>	<b>32.30 33.85</b>
				<b>Total Status Skew</b>	<b>-8.01 -23.09</b>

## Comparison Progress Report

Foundational Wellness Profile April 2009

**Anna**

Female / Age: 57

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

	Status % on:	2/21/2008		4/29/2009		+/- change
LDL		<b>141.18</b>	<b>H</b>	<b>89.71</b>	<b>H</b>	<b>+ 51.47</b>
Cholesterol		<b>68.33</b>	<b>H</b>	24.17		+ 44.17
CO2		<b>-33.33</b>	<b>L</b>	0.00		+ 33.33
Ultra-Sensitive TSH		<b>59.29</b>	<b>H</b>	<b>-127.86</b>	<b>L</b>	<b>- 68.57</b>
B.U.N./Creatinine Ratio		6.59		<b>48.99</b>	<b>H</b>	<b>- 42.41</b>
Uric Acid		-1.11		<b>38.89</b>	<b>H</b>	<b>- 37.78</b>
Hemoglobin		0.00		<b>34.21</b>	<b>H</b>	<b>- 34.21</b>
Free T-3		-11.05		<b>39.47</b>	<b>H</b>	<b>- 28.42</b>
sGPT		-8.62		<b>35.29</b>	<b>H</b>	<b>- 26.67</b>
Glucose		<b>35.29</b>	<b>H</b>	<b>61.76</b>	<b>H</b>	<b>- 26.47</b>
Hematocrit		-4.00		<b>29.00</b>	<b>H</b>	<b>- 25.00</b>

# Comparison Report

## Foundational Wellness Profile April 2009

**Anna**

Female / Age: 57

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:	2/21/2008	4/29/2009
0.16		+	A/G Ratio	12.64	0.16
			Albumin	10.00	10.00
			Alkaline Phosphatase	7.73	9.79
-30.00		-	Anion Gap	21.67	-30.00 L
			B.U.N.	-11.11	16.67
6.59		-	B.U.N./Creatinine Ratio	6.59	48.99 H
			Basophil Count	-41.30 L	-44.30 L
			Basophils	-35.00 L	-40.00 L
-20.00		+	Bilirubin, Total	-20.00	0.00
6.25		-	Calcium	6.25	25.00 H
-8.57		+	Calcium/Phosphorus Ratio	-8.57	0.00
8.33		-	Chloride	8.33	25.00 H
24.17		+	Cholesterol	68.33 H	24.17
-33.33		+	CO2	-33.33 L	0.00
			Creatinine	11.43	4.00
-20.19		-	Eosinophil Count	-2.87	-20.19
-15.00		-	Eosinophils	2.50	-15.00
-11.05		-	Free T-3	-11.05	39.47 H
			GGT	-19.23	-12.69
			Globulin	-8.82	-8.82
35.29		-	Glucose	35.29 H	61.76 H
-24.55		-	HDL-Cholesterol	6.36	-24.55
-4.00		-	Hematocrit	-4.00	29.00 H
0.00		-	Hemoglobin	0.00	34.21 H
			Iron, Total	-18.80	11.67
			LDH	6.15	-11.54
89.71		+	LDL	141.18 H	89.71 H
			Lymphocyte Count	-41.55 L	-38.44 L
			Lymphocytes	-37.94 L	-32.06 L
			MCH	29.59 H	27.25 H
8.59		-	MCHC	8.59	18.30
			MCV	12.62	5.41
-15.11		-	Monocyte Count	-6.29	-15.11
12.31		+	Monocytes	20.00	12.31
			Neutrophil Count	-11.85	-12.47
			Neutrophils	19.76	20.95
			Phosphorus	0.00	0.00
0.00		+	Potassium	11.11	0.00
			Protein, Total	7.14	7.14
			R.B.C.	-13.08	20.00
			sGOT	-8.33	6.00
-8.62		-	sGPT	-8.62	35.29 H
			Sodium	-4.55	-4.55
26.92		-	T-3 Uptake	26.92 H	34.62 H
			Thyroxine (T4)	-23.75	-30.00 L
20.67		+	Triglycerides	32.26 H	20.67
-127.86		-	Ultra-Sensitive TSH	59.29 H	-127.86 L
-1.11		-	Uric Acid	-1.11	38.89 H
			W.B.C.	-21.43	-22.86
			<b>Total Status Deviation</b>	<b>19.75</b>	<b>23.40</b>
			<b>Total Status Skew</b>	<b>2.67</b>	<b>3.13</b>

## Comparison Progress Report

Foundational Wellness Profile April 2009

**Anna**

Female / Age: 57

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

	Status % on:	2/21/2008		4/28/2009		+/- change
CA Cycle Entry		<b>1125.02</b>	H	20.20		+1104.82
Homovanillate		<b>574.59</b>	H	<b>-32.26</b>	L	<b>+ 542.33</b>
Oxidative Damage		<b>300.25</b>	H	<b>212.67</b>	H	<b>+ 87.59</b>
Vanilmandelate		<b>-76.02</b>	L	<b>25.56</b>	H	<b>+ 50.47</b>
p-Hydroxyphenyllactate		<b>113.44</b>	H	<b>70.00</b>	H	<b>+ 43.44</b>
Suberate		<b>53.19</b>	H	10.56		+ 42.64
CA Cycle Phase 1		<b>77.76</b>	H	<b>36.63</b>	H	<b>+ 41.13</b>
P-Hydroxyphenylacetate		<b>-47.00</b>	L	17.20		+ 29.80
CA Cycle Phase 2		<b>-28.31</b>	L	2.26		+ 26.05
Phenylacetate		<b>50.00</b>	H	<b>1033.33</b>	H	<b>- 983.33</b>
Sulfate		<b>-25.38</b>	L	<b>713.39</b>	H	<b>- 688.01</b>
D-Lactate		<b>63.26</b>	H	<b>395.45</b>	H	<b>- 332.19</b>
Benzoate		4.80		<b>148.40</b>	H	<b>- 143.60</b>
2-Methylhippurate		4.79		<b>98.00</b>	H	<b>- 93.21</b>
Kynurenate		4.12		<b>91.67</b>	H	<b>- 87.55</b>
Glucarate		3.07		<b>86.43</b>	H	<b>- 83.36</b>
Fumarate		13.60		<b>89.44</b>	H	<b>- 75.84</b>
CA Cycle Phase 3		1.20		<b>71.30</b>	H	<b>- 70.10</b>
Xanthurenate		5.52		<b>42.86</b>	H	<b>- 37.33</b>
Formiminoglutamic Acid		11.86		<b>46.55</b>	H	<b>- 34.69</b>
cis-Aconitate		0.72		<b>-27.83</b>	L	<b>- 27.11</b>
Isocitrate		-21.44		<b>46.52</b>	H	<b>- 25.07</b>
CA Cycle Return		15.67		<b>-40.72</b>	L	<b>- 25.06</b>

# Comparison Report

Foundational Wellness Profile April 2009

Anna

Female / Age: 57

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:	2/21/2008	4/28/2009
4.79		-	2-Methylhippurate	4.79	98.00 H
-5.78		-	5-Hydroxyindoleacetate	-5.78	20.73
8.49		+	8-Hydroxy-2-deoxyguan	27.54 H	8.49
			Adipate	-4.11	-4.39
-25.00		-	a-Hydroxybutyrate	1.62	-25.00 L
-31.50		-	a-Ketoglutarate	-22.04	-31.50 L
-32.05		+	a-Ketoisocaproate	53.86 H	-32.05 L
-25.00		-	a-Ketoisovalerate	-1.41	-25.00 L
4.80		-	Benzoate	4.80	148.40 H
20.20		+	CA Cycle Entry	1125.02 H	20.20
-40.72		-	CA Cycle Return	15.67	-40.72 L
-27.83		-	cis-Aconitate	0.72	-27.83 L
-29.82		-	Citrate	10.14	-29.82 L
0.00		+	D-Arabinitol	10.32	0.00
63.26		-	D-Lactate	63.26 H	395.45 H
-0.91		+	Ethylmalonate	13.29	-0.91
11.86		-	Formiminoglutamic Acid	11.86	46.55 H
13.60		-	Fumarate	13.60	89.44 H
3.07		-	Glucarate	3.07	86.43 H
			Hippurate	12.85	10.70
-32.26		+	Homovanillate	574.59 H	-32.26 L
			Hydroxymethylglutarate	-8.25	-12.50
			Indican	-48.75 L	-48.88 L
-21.44		-	Isocitrate	-21.44	46.52 H
4.12		-	Kynurenate	4.12	91.67 H
			Malate	-13.93	18.26
-32.42		+	Methylmalonate	-32.42 L	-14.35
8.33		-	Orotate	8.33	33.00 H
50.00		-	Phenylacetate	50.00 H	1033.33 H
30.00		+	Phenylpropionate	50.00 H	30.00 H
11.67		-	p-Hydroxybenzoate	11.67	20.00
-47.00		+	p-Hydroxyphenylacetate	-47.00 L	17.20
70.00		+	p-Hydroxyphenyllactate	113.44 H	70.00 H
-21.33		-	Pyroglutamate	-21.33	30.00 H
-36.76		-	Pyruvate	-36.76 L	58.05 H
			Quinolate	-0.98	-1.47
10.56		+	Suberate	53.19 H	10.56
			Succinate	-3.32	5.87
-25.38		-	Sulfate	-25.38 L	713.39 H
			Tricarballylate	39.78 H	-35.00 L
-76.02		+	Vanilmandelate	-76.02 L	25.56 H
5.52		-	Xanthurenate	5.52	42.86 H
			<b>Total Status Deviation</b>	<b>62.10</b>	<b>79.10</b>
			<b>Total Status Skew</b>	<b>36.56</b>	<b>60.08</b>

## Panel/Subset Comparison Report

Foundational Wellness Profile April 2009

Anna

Female / Age: 57

<b>Ammonia/Energy</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Arginine	-16.05	-27.65	L -	-27.65 ← -16.05
Threonine	-38.07	-63.57	L -	-63.57 ← -38.07
Glycine	-50.85	-74.29	L -	-74.29 ← -50.85
Serine	-50.99	-68.00	L -	-68.00 ← -50.99
a-Aminoadipic Acid	-23.25	-6.67	+	-23.25 → -6.67
Asparagine	-71.93	-60.00	L +	-71.93 → -60.00
Aspartic Acid	-25.79	-47.24	L -	-47.24 ← -25.79
Citrulline	-12.71	-22.73	-	-22.73 ← -12.71
Glutamic Acid	16.69	-25.38	L -	-25.38 ← 16.69
Glutamine	-64.39	-57.41	L	
Ornithine	-31.38	-31.67	L	
a-Amino-N-Butyric Acid	-20.40	-6.00	+	-20.40 → -6.00
Alanine	1.58	-19.23	-	-19.23 ← 1.58
b-Alanine	-10.00	-14.00		
<b>PSS / PSD</b>	<b>-28.40 / 31.01</b>	<b>-37.42 / 37.42</b>		

<b>CNS Metabolism</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Arginine	-16.05	-27.65	L -	-27.65 ← -16.05
Tryptophan	13.75	67.50	H -	13.75 → 67.50
GABA	53.80	0.00	H +	53.80 → 0.00
Glycine	-50.85	-74.29	L -	-74.29 ← -50.85
Serine	-50.99	-68.00	L -	-68.00 ← -50.99
Taurine	-27.75	-32.61	L -	
Aspartic Acid	-25.79	-47.24	L -	-47.24 ← -25.79
Glutamine	-64.39	-57.41	L	
Ethanolamine	28.00	4.55	H +	28.00 → 4.55
Phosphoethanolamine	8.37	-32.61	L -	-32.61 ← 8.37
Phosphoserine	5.83	-66.67	L -	-66.67 ← 5.83
<b>PSS / PSD</b>	<b>-11.46 / 31.42</b>	<b>-30.40 / 43.50</b>		

<b>Connective Tissue</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Leucine	-47.75	-26.19	L +	-47.75 → -26.19
Methionine	-35.53	-22.73	L +	-35.53 → -22.73
Valine	-47.64	-33.33	L +	-47.64 → -33.33
Cystine	0.50	25.56	H -	0.50 → 25.56
Hydroxyproline	86.17	57.41	H +	86.17 → 57.41
3-Methylhistidine	49.40	18.89	H +	49.40 → 18.89
Proline	-33.10	-30.95	L	
<b>PSS / PSD</b>	<b>2.76 / 43.76</b>	<b>-1.62 / 30.72</b>		

<b>Detoxification Markers</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Methionine	-35.53	-22.73	L +	-35.53 → -22.73
Cystine	0.50	25.56	H -	0.50 → 25.56
Taurine	-27.75	-32.61	L -	
Glutamine	-64.39	-57.41	L	
Glycine	-50.85	-74.29	L -	-74.29 ← -50.85
Aspartic Acid	-25.79	-47.24	L -	-47.24 ← -25.79
<b>PSS / PSD</b>	<b>-33.97 / 34.14</b>	<b>-34.79 / 43.30</b>		



## Panel/Subset Comparison Report

Foundational Wellness Profile April 2009

Anna

Female / Age: 57

Essential Amino Acid	2/21/2008	4/29/2009	+/-	
Arginine	-16.05	-27.65	L -	-27.65 ← -16.05
Histidine	-41.65 L	-56.00 L	-	-56.00 ← -41.65
Isoleucine	-45.18 L	-43.65 L		
Leucine	-47.75 L	-26.19 L	+	-47.75 → -26.19
Lysine	-29.98 L	-40.91 L	-	-40.91 ← -29.98
Methionine	-35.53 L	-22.73	+	-35.53 → -22.73
Phenylalanine	-47.80 L	-40.00 L	+	-47.80 → -40.00
Threonine	-38.07 L	-63.57 L	-	-63.57 ← -38.07
Tryptophan	13.75	67.50 H	-	13.75 → 67.50
Valine	-47.64 L	-33.33 L	+	-47.64 → -33.33
<b>PSS / PSD</b>	<b>-33.59 / 36.34</b>	<b>-28.65 / 42.15</b>		

Fat Metabolism	2/21/2008	4/29/2009	+/-	
Arginine	-16.05	-27.65	L -	-27.65 ← -16.05
Isoleucine	-45.18 L	-43.65 L		
Leucine	-47.75 L	-26.19 L	+	-47.75 → -26.19
Valine	-47.64 L	-33.33 L	+	-47.64 → -33.33
Taurine	-27.75 L	-32.61 L		
Glutamine	-64.39 L	-57.41 L		
Sarcosine	-10.00	23.75	-	-10.00 → 23.75
<b>PSS / PSD</b>	<b>-36.97 / 36.97</b>	<b>-28.16 / 34.94</b>		

Gluconeogen	2/21/2008	4/29/2009	+/-	
Threonine	-38.07 L	-63.57 L	-	-63.57 ← -38.07
Tryptophan	13.75	67.50 H	-	13.75 → 67.50
Glycine	-50.85 L	-74.29 L	-	-74.29 ← -50.85
Serine	-50.99 L	-68.00 L	-	-68.00 ← -50.99
Alanine	1.58	-19.23	-	-19.23 ← 1.58
<b>PSS / PSD</b>	<b>-24.92 / 31.05</b>	<b>-31.52 / 58.52</b>		

Hepatic Metabolism	2/21/2008	4/29/2009	+/-	
Methionine	-35.53 L	-22.73	+	-35.53 → -22.73
Taurine	-27.75 L	-32.61 L		
Glutamine	-64.39 L	-57.41 L		
Cystine	0.50	25.56 H	-	0.50 → 25.56
Cystathionine	16.25	-19.50		
Homocystine	50.00 H	-36.00 L	+	-36.00 ← 50.00
Alanine	1.58	-19.23	-	-19.23 ← 1.58
<b>PSS / PSD</b>	<b>-8.48 / 28.00</b>	<b>-23.13 / 30.43</b>		

Immune Metabolites	2/21/2008	4/29/2009	+/-	
Arginine	-16.05	-27.65	L -	-27.65 ← -16.05
Threonine	-38.07 L	-63.57 L	-	-63.57 ← -38.07
Glutamine	-64.39 L	-57.41 L		
Ornithine	-31.38 L	-31.67 L		
<b>PSS / PSD</b>	<b>-37.47 / 37.47</b>	<b>-45.07 / 45.07</b>		

## Panel/Subset Comparison Report

Foundational Wellness Profile April 2009

Anna

Female / Age: 57

<b>Magnesium Dependents</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Citrulline	-12.71	-22.73	-	-22.73 ← -12.71
Ethanolamine	<b>28.00</b> H	4.55	+	4.55 ← <b>28.00</b>
Phosphoethanolamine	8.37	<b>-32.61</b> L	-	<b>-32.61</b> ← 8.37
Phosphoserine	5.83	<b>-66.67</b> L	-	<b>-66.67</b> ← 5.83
Serine	<b>-50.99</b> L	<b>-68.00</b> L	-	<b>-68.00</b> ← <b>-50.99</b>
<b>PSS / PSD</b>	-4.30 / 21.18	-24.41 / 38.92		

<b>Muscle Metabolites</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Anserine	<b>50.00</b> H	-9.00	+	-9.00 ← <b>50.00</b>
Carnosine	<b>50.00</b> H	-5.50	+	-5.50 ← <b>50.00</b>
1-Methylhistidine	<b>-32.20</b> L	-8.67	+	<b>-32.20</b> → -8.67
3-Methylhistidine	<b>49.40</b> H	18.89	+	18.89 ← <b>49.40</b>
<b>PSS / PSD</b>	29.30 / 45.40	-1.07 / 10.51		

<b>Neuroendocrine Metab</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
GABA	<b>53.80</b> H	0.00	+	0.00 ← <b>53.80</b>
Glycine	<b>-50.85</b> L	<b>-74.29</b> L	-	<b>-74.29</b> ← <b>-50.85</b>
Serine	<b>-50.99</b> L	<b>-68.00</b> L	-	<b>-68.00</b> ← <b>-50.99</b>
Taurine	<b>-27.75</b> L	<b>-32.61</b> L	-	
Tyrosine	-11.91	<b>-36.67</b> L	-	<b>-36.67</b> ← -11.91
<b>PSS / PSD</b>	-17.54 / 39.06	-42.31 / 42.31		

<b>Urea Cycle Metabolites</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Arginine	-16.05	<b>-27.65</b> L	-	<b>-27.65</b> ← -16.05
Aspartic Acid	<b>-25.79</b> L	<b>-47.24</b> L	-	<b>-47.24</b> ← <b>-25.79</b>
Citrulline	-12.71	-22.73	-	-22.73 ← -12.71
Ornithine	<b>-31.38</b> L	<b>-31.67</b> L	-	
Glutamine	<b>-64.39</b> L	<b>-57.41</b> L	-	
Asparagine	<b>-71.93</b> L	<b>-60.00</b> L	+	<b>-71.93</b> → <b>-60.00</b>
<b>PSS / PSD</b>	-37.04 / 37.04	-42.16 / 42.16		

<b>Adrenal Function</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Cholesterol	<b>68.33</b> H	24.17	+	24.17 ← <b>68.33</b>
Eosinophils	2.50	-15.00	-	-15.00 ← 2.50
Eosinophil Count	-2.87	-20.19	-	-20.19 ← -2.87
Potassium	11.11	0.00	+	0.00 ← 11.11
Sodium	-4.55	-4.55		
<b>PSS / PSD</b>	14.91 / 17.87	-3.11 / 12.78		

<b>Allergy</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Eosinophils	2.50	-15.00	-	-15.00 ← 2.50
Globulin	-8.82	-8.82		
Lymphocytes	<b>-37.94</b> L	<b>-32.06</b> L	-	
Monocytes	20.00	12.31	+	12.31 ← 20.00
W.B.C.	-21.43	-22.86		
<b>PSS / PSD</b>	-9.14 / 18.14	-13.29 / 18.21		

## Panel/Subset Comparison Report

**Anna**

Female / Age: 57

**Foundational Wellness Profile April 2009**

<b>Anti Oxidant Status</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Anion Gap	21.67	<b>-30.00</b> L	-	<b>-30.00</b> ← 21.67
Bilirubin, Total	-20.00	0.00	+	-20.00 → 0.00
Chloride	8.33	<b>25.00</b> H	-	8.33 → <b>25.00</b>
Cholesterol	<b>68.33</b> H	24.17	+	24.17 ← <b>68.33</b>
Glucose	<b>35.29</b> H	<b>61.76</b> H	-	<b>35.29</b> → <b>61.76</b>
Iron, Total	-18.80	11.67		
<b>PSS / PSD</b>	15.80 / 28.74	15.43 / 25.43		

<b>Athletic Potential</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
B.U.N./Creatinine Ratio	6.59	<b>48.99</b> H	-	6.59 → <b>48.99</b>
Cholesterol	<b>68.33</b> H	24.17	+	24.17 ← <b>68.33</b>
CO2	<b>-33.33</b> L	0.00	+	<b>-33.33</b> → 0.00
Creatinine	11.43	4.00		
LDH	6.15	-11.54		
Potassium	11.11	0.00	+	0.00 ← 11.11
Protein, Total	7.14	7.14		
Sodium	-4.55	-4.55		
HDL-Cholesterol	6.36	-24.55	-	-24.55 ← 6.36
<b>PSS / PSD</b>	8.80 / 17.22	4.85 / 13.88		

<b>Bone/Joint</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Albumin	10.00	10.00		
Alkaline Phosphatase	7.73	9.79		
Calcium	6.25	<b>25.00</b> H	-	6.25 → <b>25.00</b>
Neutrophils	19.76	20.95		
Phosphorus	0.00	0.00		
Protein, Total	7.14	7.14		
Uric Acid	-1.11	<b>38.89</b> H	-	-1.11 → <b>38.89</b>
<b>PSS / PSD</b>	7.11 / 7.43	15.97 / 15.97		

<b>Cardiac Marker</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Cholesterol	<b>68.33</b> H	24.17	+	24.17 ← <b>68.33</b>
GGT	-19.23	-12.69		
Iron, Total	-18.80	11.67		
LDH	6.15	-11.54		
sGOT	-8.33	6.00		
Triglycerides	<b>32.26</b> H	20.67	+	20.67 ← <b>32.26</b>
Uric Acid	-1.11	<b>38.89</b> H	-	-1.11 → <b>38.89</b>
HDL-Cholesterol	6.36	-24.55	-	-24.55 ← 6.36
LDL	<b>141.18</b> H	<b>89.71</b> H	+	<b>89.71</b> ← <b>141.18</b>
<b>PSS / PSD</b>	22.98 / 33.53	15.81 / 26.65		

## Panel/Subset Comparison Report

Foundational Wellness Profile April 2009

**Anna**

Female / Age: 57

<b>Cellular Distortions</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Alkaline Phosphatase	7.73	9.79		
Anion Gap	21.67	<b>-30.00</b> L	-	<b>-30.00</b> ← 21.67
GGT	-19.23	-12.69		
Iron, Total	-18.80	11.67		
LDH	6.15	-11.54		
Neutrophils	19.76	20.95		
W.B.C.	-21.43	-22.86		
<b>PSS / PSD</b>	<b>-0.59 / 16.40</b>	<b>-4.95 / 17.07</b>		

<b>Differential</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Basophils	<b>-35.00</b> L	<b>-40.00</b> L	-	
Eosinophils	2.50	-15.00	-	-15.00 ← 2.50
Lymphocytes	<b>-37.94</b> L	<b>-32.06</b> L	-	
Monocytes	20.00	12.31	+	12.31 ← 20.00
Neutrophils	19.76	20.95		
<b>PSS / PSD</b>	<b>-6.14 / 23.04</b>	<b>-10.76 / 24.06</b>		

<b>Differential Count</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Basophil Count	<b>-41.30</b> L	<b>-44.30</b> L	-	
Eosinophil Count	-2.87	-20.19	-	-20.19 ← -2.87
Lymphocyte Count	<b>-41.55</b> L	<b>-38.44</b> L	-	
Monocyte Count	-6.29	-15.11	-	-15.11 ← -6.29
Neutrophil Count	-11.85	-12.47		
<b>PSS / PSD</b>	<b>-20.77 / 20.77</b>	<b>-26.10 / 26.10</b>		

<b>Electrolyte</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Calcium	6.25	<b>25.00</b> H	-	6.25 → <b>25.00</b>
Chloride	8.33	<b>25.00</b> H	-	8.33 → <b>25.00</b>
CO2	<b>-33.33</b> L	0.00	+	<b>-33.33</b> → 0.00
Phosphorus	0.00	0.00		
Potassium	11.11	0.00	+	0.00 ← 11.11
Sodium	-4.55	-4.55		
<b>PSS / PSD</b>	<b>-2.03 / 10.60</b>	<b>7.58 / 9.09</b>		

<b>Gastrointest. Function</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Anion Gap	21.67	<b>-30.00</b> L	-	<b>-30.00</b> ← 21.67
Chloride	8.33	<b>25.00</b> H	-	8.33 → <b>25.00</b>
Cholesterol	<b>68.33</b> H	24.17	+	24.17 ← <b>68.33</b>
CO2	<b>-33.33</b> L	0.00	+	<b>-33.33</b> → 0.00
Monocytes	20.00	12.31	+	12.31 ← 20.00
Potassium	11.11	0.00	+	0.00 ← 11.11
Sodium	-4.55	-4.55		
Triglycerides	<b>32.26</b> H	20.67	+	20.67 ← <b>32.26</b>
LDL	<b>141.18</b> H	<b>89.71</b> H	+	<b>89.71</b> ← <b>141.18</b>
<b>PSS / PSD</b>	<b>29.44 / 37.86</b>	<b>15.26 / 22.93</b>		

## Panel/Subset Comparison Report

Foundational Wellness Profile April 2009

Anna

Female / Age: 57

<b>Hematology</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Hematocrit	-4.00	<b>29.00</b> H	-	-4.00 <b>29.00</b>
Hemoglobin	0.00	<b>34.21</b> H	-	0.00 <b>34.21</b>
MCH	<b>29.59</b> H	<b>27.25</b> H		
MCHC	8.59	18.30	-	8.59  18.30
MCV	12.62	5.41		
R.B.C.	-13.08	20.00		
W.B.C.	-21.43	-22.86		
<b>PSS / PSD</b>	<b>1.76 / 12.76</b>	<b>15.90 / 22.43</b>		

<b>Inflammatory Process</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Eosinophils	2.50	-15.00	-	-15.00  2.50
Globulin	-8.82	-8.82		
LDH	6.15	-11.54		
Potassium	11.11	0.00	+	0.00  11.11
sGOT	-8.33	6.00		
sGPT	-8.62	<b>35.29</b> H	-	-8.62 <b>35.29</b>
Triglycerides	<b>32.26</b> H	20.67	+	20.67 <b>32.26</b>
Uric Acid	-1.11	<b>38.89</b> H	-	-1.11 <b>38.89</b>
LDL	<b>141.18</b> H	<b>89.71</b> H	+	<b>89.71</b> <b>141.18</b>
Monocytes	20.00	12.31	+	12.31  20.00
<b>PSS / PSD</b>	<b>18.63 / 24.01</b>	<b>16.75 / 23.82</b>		

<b>Kidney Function</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Albumin	10.00	10.00		
B.U.N.	-11.11	16.67		
B.U.N./Creatinine Ratio	6.59	<b>48.99</b> H	-	6.59 <b>48.99</b>
Chloride	8.33	<b>25.00</b> H	-	8.33 <b>25.00</b>
CO2	<b>-33.33</b> L	0.00	+	<b>-33.33</b> 0.00
Creatinine	11.43	4.00		
Glucose	<b>35.29</b> H	<b>61.76</b> H	-	<b>35.29</b> <b>61.76</b>
Potassium	11.11	0.00	+	0.00  11.11
Protein, Total	7.14	7.14		
Sodium	-4.55	-4.55		
<b>PSS / PSD</b>	<b>4.09 / 13.89</b>	<b>16.90 / 17.81</b>		

<b>Lipid</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Cholesterol	<b>68.33</b> H	24.17	+	24.17 <b>68.33</b>
Triglycerides	<b>32.26</b> H	20.67	+	20.67 <b>32.26</b>
HDL-Cholesterol	6.36	-24.55	-	-24.55  6.36
LDL	<b>141.18</b> H	<b>89.71</b> H	+	<b>89.71</b> <b>141.18</b>
<b>PSS / PSD</b>	<b>62.03 / 62.03</b>	<b>27.50 / 39.77</b>		

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<b>Liver Function</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Albumin	10.00	10.00		
Alkaline Phosphatase	7.73	9.79		
Bilirubin, Total	-20.00	0.00	+	-20.00  0.00
Cholesterol	<b>68.33</b> H	24.17	+	24.17 <b>68.33</b>
GGT	-19.23	-12.69		
Protein, Total	7.14	7.14		
sGOT	-8.33	6.00		
sGPT	-8.62	<b>35.29</b> H	-	-8.62 <b>35.29</b>
<b>PSS / PSD</b>	4.63 / 18.67	9.96 / 13.14		

<b>Nitrogen</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
B.U.N.	-11.11	16.67		
B.U.N./Creatinine Ratio	6.59	<b>48.99</b> H	-	6.59 <b>48.99</b>
Creatinine	11.43	4.00		
Uric Acid	-1.11	<b>38.89</b> H	-	-1.11 <b>38.89</b>
<b>PSS / PSD</b>	1.45 / 7.56	27.14 / 27.14		

<b>Protein</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
A/G Ratio	12.64	0.16	+	0.16  12.64
Albumin	10.00	10.00		
Globulin	-8.82	-8.82		
Protein, Total	7.14	7.14		
<b>PSS / PSD</b>	5.24 / 9.65	2.12 / 6.53		

<b>Pulmonary Function</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Anion Gap	21.67	<b>-30.00</b> L	-	<b>-30.00</b> 21.67
Calcium	6.25	<b>25.00</b> H	-	6.25 <b>25.00</b>
CO2	<b>-33.33</b> L	0.00	+	<b>-33.33</b> 0.00
LDH	6.15	-11.54		
Potassium	11.11	0.00	+	0.00  11.11
sGOT	-8.33	6.00		
Sodium	-4.55	-4.55		
<b>PSS / PSD</b>	-0.15 / 13.06	-2.15 / 11.01		

<b>Ratios</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
A/G Ratio	12.64	0.16	+	0.16  12.64
B.U.N./Creatinine Ratio	6.59	<b>48.99</b> H	-	6.59 <b>48.99</b>
Calcium/Phosphorus Ratio	-8.57	0.00	+	-8.57  0.00
Sodium/Potassium Ratio	-13.04	-1.52	+	-13.04  -1.52
<b>PSS / PSD</b>	-0.60 / 10.21	11.91 / 12.67		

<b>Thyroid</b>	<b>2/21/2008</b>	<b>4/29/2009</b>	<b>+/-</b>	
Free T-3	-11.05	<b>39.47</b> H	-	-11.05 <b>39.47</b>
Thyroxine (T4)	-23.75	<b>-30.00</b> L		
T-3 Uptake	<b>26.92</b> H	<b>34.62</b> H	-	<b>26.92</b> <b>34.62</b>
Ultra-Sensitive TSH	<b>59.29</b> H	<b>-127.86</b> L	-	<b>-127.86</b> <b>59.29</b>
<b>PSS / PSD</b>	4.28 / 30.20	-21.75 / 51.39		

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Anna

Female / Age: 57

<b>B-Complex Markers</b>	<b>2/21/2008</b>	<b>4/28/2009</b>	<b>+/-</b>	
a-Ketoisovalerate	-1.41	<b>-25.00</b> L	-	
a-Ketoisocaproate	<b>53.86</b> H	<b>-32.05</b> L	+	
Methylmalonate	<b>-32.42</b> L	-14.35	+	
Formiminoglutamic Acid	11.86	<b>46.55</b> H	-	
Xanthurenate	5.52	<b>42.86</b> H	-	
<b>PSS / PSD</b>	6.27 / 16.82	3.60 / 32.16		

<b>BCAA Catabolism</b>	<b>2/21/2008</b>	<b>4/28/2009</b>	<b>+/-</b>	
a-Ketoisovalerate	-1.41	<b>-25.00</b> L	-	
a-Ketoisocaproate	<b>53.86</b> H	<b>-32.05</b> L	+	
<b>PSS / PSD</b>	20.67 / 21.61	-28.53 / 28.53		

<b>CAC Cycle Ratios</b>	<b>2/21/2008</b>	<b>4/28/2009</b>	<b>+/-</b>	
CA Cycle Entry	<b>1125.02</b> H	20.20	+	
CA Cycle Phase 1	<b>77.76</b> H	<b>36.63</b> H	+	
CA Cycle Phase 2	<b>-28.31</b> L	2.26	+	
CA Cycle Phase 3	1.20	<b>71.30</b> H	-	
CA Cycle Phase 4	<b>-32.02</b> L	-21.15	+	
CA Cycle Phase 5	-9.57	<b>-28.36</b> L	-	
CA Cycle Phase 6	<b>72.49</b> H	<b>55.72</b> H	+	
CA Cycle Return	15.67	<b>-40.72</b> L	-	
<b>PSS / PSD</b>	152.78 / 170.25	11.98 / 34.54		

<b>Carbohydrate Metabolism</b>	<b>2/21/2008</b>	<b>4/28/2009</b>	<b>+/-</b>	
Pyruvate	<b>-36.76</b> L	<b>58.05</b> H	-	
a-Hydroxybutyrate	1.62	<b>-25.00</b> L	-	
<b>PSS / PSD</b>	-3.67 / 37.10	16.52 / 41.52		

<b>Energy Production</b>	<b>2/21/2008</b>	<b>4/28/2009</b>	<b>+/-</b>	
Citrate	10.14	<b>-29.82</b> L	-	
cis-Aconitate	0.72	<b>-27.83</b> L	-	
Isocitrate	-21.44	<b>46.52</b> H	-	
a-Ketoglutarate	-22.04	<b>-31.50</b> L	-	
Succinate	-3.32	5.87		
Fumarate	13.60	<b>89.44</b> H	-	
Malate	-13.93	18.26		
Hydroxymethylglutarate	-8.25	-12.50		
<b>PSS / PSD</b>	-5.56 / 11.68	7.31 / 32.72		

<b>Fatty Acid Metabolism</b>	<b>2/21/2008</b>	<b>4/28/2009</b>	<b>+/-</b>	
Adipate	-4.11	-4.39		
Suberate	<b>53.19</b> H	10.56	+	
Ethylmalonate	13.29	-0.91	+	
<b>PSS / PSD</b>	20.79 / 23.53	1.75 / 5.28		

## Panel/Subset Comparison Report

Foundational Wellness Profile April 2009

Anna

Female / Age: 57

<b>Intestinal Dysbiosis</b>	<b>2/21/2008</b>		<b>4/28/2009</b>		<b>+/-</b>	
p-Hydroxyphenyllactate	113.44	H	70.00	H	+	70.00 ← 113.44
Phenylacetate	50.00	H	1033.33	H	-	50.00 → 1033.33
Phenylpropionate	50.00	H	30.00	H	+	30.00 ← 50.00
Tricarballoylate	39.78	H	-35.00	L		
Indican	-48.75	L	-48.88	L		
p-Hydroxybenzoate	11.67		20.00		-	11.67 → 20.00
D-Lactate	63.26	H	395.45	H	-	63.26 → 395.45
D-Arabinitol	10.32		0.00		+	0.00 ← 10.32
<b>PSS / PSD</b>	<b>36.21 / 48.40</b>		<b>183.11 / 204.08</b>			

<b>Liver Detox Indicators</b>	<b>2/21/2008</b>		<b>4/28/2009</b>		<b>+/-</b>	
2-Methylhippurate	4.79		98.00	H	-	4.79 → 98.00
Glucarate	3.07		86.43	H	-	3.07 → 86.43
Orotate	8.33		33.00	H	-	8.33 → 33.00
Pyroglutamate	-21.33		30.00	H	-	-21.33 → 30.00
Sulfate	-25.38	L	713.39	H	-	-25.38 → 713.39
a-Hydroxybutyrate	1.62		-25.00	L	-	-25.00 ← 1.62
<b>PSS / PSD</b>	<b>-4.82 / 10.75</b>		<b>155.97 / 164.30</b>			

<b>Neurotransmitters</b>	<b>2/21/2008</b>		<b>4/28/2009</b>		<b>+/-</b>	
Vanilmandelate	-76.02	L	25.56	H	+	-76.02 → 25.56
Homovanillate	574.59	H	-32.26	L	+	-32.26 ← 574.59
5-Hydroxyindoleacetate	-5.78		20.73		-	-5.78 → 20.73
Kynurenate	4.12		91.67	H	-	4.12 → 91.67
Quinolate	-0.98		-1.47			
<b>PSS / PSD</b>	<b>99.18 / 132.30</b>		<b>20.85 / 34.34</b>			



# Village Pharmacy

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

## Custom Amino Acid Profile

Biochemically Individualized for your patient

Client

**Anna**

Visit date  
**4/29/2009**

### Order Payment and Delivery Information

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

**Ship to:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**City, State, Zip:** \_\_\_\_\_

**Phone:** \_\_\_\_\_

**Credit Card Number:** \_\_\_\_\_

**Expires:** \_\_\_\_\_

**Authorizing Signature:** \_\_\_\_\_

### Amino Acid Customization Details

	Container Base Grams	Test Result	% Status	Grams Added
L-Arginine	19.50	6.400000	-27.65	0
L-Histidine	13.50	4.699999	-56.00	4
L-Isoleucine	13.50	4.099999	-43.65	0
L-Leucine	12.00	10	-26.19	0
L-Lysine	12.00	16	-40.91	0
L-Methionine	15.00	1.399999	-22.73	0
L-Phenylalanine	15.00	4.5	-40.00	0
L-Taurine	8.10	6.5	-32.61	0
L-Threonine	13.50	6.099999	-63.57	6
L-Tryptophan (as 5-HTP)	0.90	7.699999	67.50	0
L-Valine	15.00	16	-33.33	0
Total Base Grams: <b>138.00</b>		Total Grams Added: <b>10</b>		

#### Other Ingredients \*

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

\* Flavored product may include additional ingredients not shown.

Customization based exclusively on Crayhon Research Inc's LabAssist™ interpretive report, and amino acids.