CELLMATE™ WELLNESS SYSTEMS

P.O. Box 4549
Incline Village, NV 89450

(775) 832-8485
(775) 832-8488 Fax
www.cellmatewellness.com

ANNA

Test date: 6/10/2003
(accession: A0306130053)
Entered: 6/23/2003

Next Test Due: 12/11/2003

CellMate™ Foundational Wellness Profile Report

Practitioner

If there is a problem with this report, please contact us as soon as possible at: (775) 832-8485 or Fax (775) 832-8488

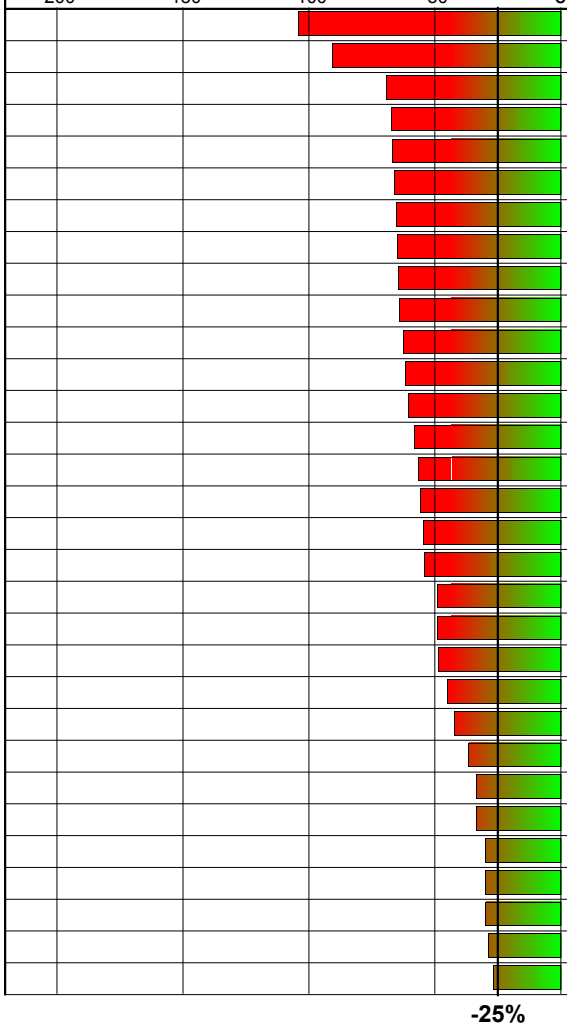
Basic Status Report (High/Low)

ANNA **Foundational Wellness Profile Date: 6/10/2003**

Female / Age: 51
Client ID:555986644 (8322)

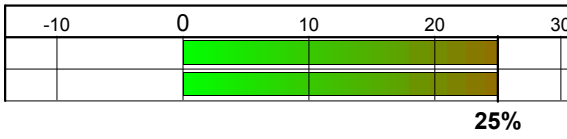
The % Status is the weighted deviation of the laboratory result.

Low Results



	% Status		Result	Low	High
Histidine - P	-104.29	L	**32.00**	70.00	140.00
Glutamine - P	-90.67	L	**417.00**	600.00	1050.00
Valine - P	-69.20	L	**122.00**	170.00	420.00
Tyrosine - P	-67.14	L	**38.00**	50.00	120.00
Tryptophan - P	-66.67	L	**30.00**	35.00	65.00
Methionine - P	-66.00	L	**21.00**	25.00	50.00
Isoleucine - P	-65.45	L	**33.00**	50.00	160.00
Threonine - P	-64.67	L	**78.00**	100.00	250.00
Leucine - P	-64.55	L	**74.00**	90.00	200.00
Asparagine - P	-64.12	L	**33.00**	45.00	130.00
Glycine - P	-62.44	L	**197.00**	225.00	450.00
Phenylalanine - P	-61.58	L	**34.00**	45.00	140.00
Glutamic Acid - P	-60.48	L	**34.00**	45.00	150.00
Proline - P	-58.15	L	**108.00**	130.00	400.00
Taurine - P	-56.50	L	**37.00**	50.00	250.00
Serine - P	-55.83	L	**83.00**	90.00	210.00
Lysine - P	-54.67	L	**143.00**	150.00	300.00
Aspartic Acid - P	-54.17	L	**5.00**	6.00	30.00
Anserine - P	-49.00	L	**0.01**	0.00	1.00
Carnosine - P	-49.00	L	**0.01**	0.00	1.00
Ornithine - P	-48.67	L	**52.00**	50.00	200.00
1-Methylhistidine - P	-45.00	L	**1.00**	0.00	20.00
Cystine - P	-42.50	L	**16.00**	10.00	90.00
a-Amino-N-Butyric Acid - P	-36.67	L	**14.00**	10.00	40.00
Arginine - P	-33.64	L	**68.00**	50.00	160.00
Hydroxyproline - P	-33.33	L	**5.00**	0.00	30.00
b-Alanine - P	-30.00	L	**1.00**	0.00	5.00
GABA-P	-30.00	L	**1.00**	0.00	5.00
Sarcosine - P	-30.00	L	**1.00**	0.00	5.00
Alanine - P	-28.86	L	**324.00**	250.00	600.00
Phosphoethanolamine - P	-26.67	L	**7.00**	0.00	30.00

High Results



	% Status		Result	Low	High
Cystathionine - P	25.00	H	**3.00**	0.00	4.00
Ethanolamine - P	25.00	H	**6.00**	0.00	8.00

Basic Status Report (High/Low)

ANNA **Foundational Wellness Profile Date: 6/10/2003**

Female / Age: 51

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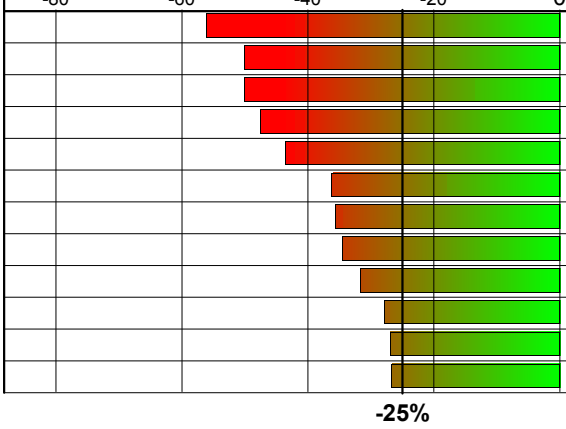
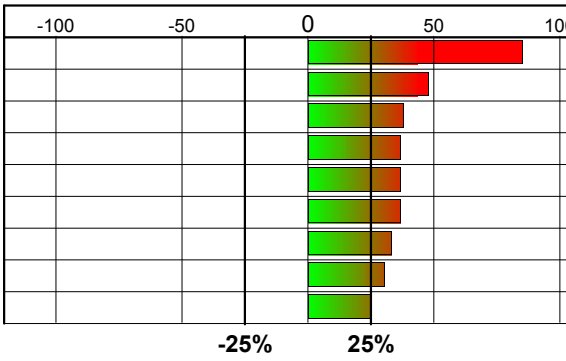
Low Results



	% Status		Result	Low	High
W.B.C.	-56.15	L	**3.60**	4.00	10.50
Basophil Count	-50.00	L	**0.00**	0.00	200.00
Basophils	-50.00	L	**0.00**	0.00	3.00
Lymphocyte Count	-47.50	L	**900.00**	800.00	4800.00
Neutrophil Count	-43.61	L	**2196.00**	1800.00	8000.00
Monocyte Count	-36.22	L	**324.00**	200.00	1100.00
R.B.C.	-35.62	L	**4.13**	3.90	5.50
Ultra-Sensitive TSH	-34.47	L	**1.15**	0.35	5.50
Iron, Total	-31.67	L	**57.00**	35.00	155.00
Creatinine	-27.78	L	**0.80**	0.60	1.50
A/G Ratio	-26.92	L	**1.40**	1.10	2.40
Lymphocytes	-26.67	L	**25.00**	18.00	48.00

High Results



	% Status		Result	Low	High
LDL	85.29	H	**154.00**	62.00	130.00
Cholesterol	48.00	H	**238.00**	140.00	240.00
LDH	38.13	H	**191.00**	50.00	210.00
B.U.N./Creatinine Ratio	36.84	H	**22.50**	6.00	25.00
MCH	36.72	H	**32.20**	27.00	33.00
Anion Gap	36.67	H	**18.40**	8.00	20.00
Eosinophils	33.33	H	**5.00**	0.00	6.00
MCV	30.40	H	**95.88**	79.00	100.00
Sodium	25.00	H	**144.00**	135.00	147.00

Basic Status Report (High/Low)

ANNA **Foundational Wellness Profile Date: 6/10/2003**

Female / Age: 51

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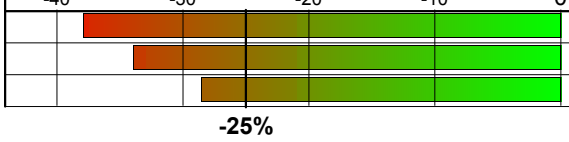
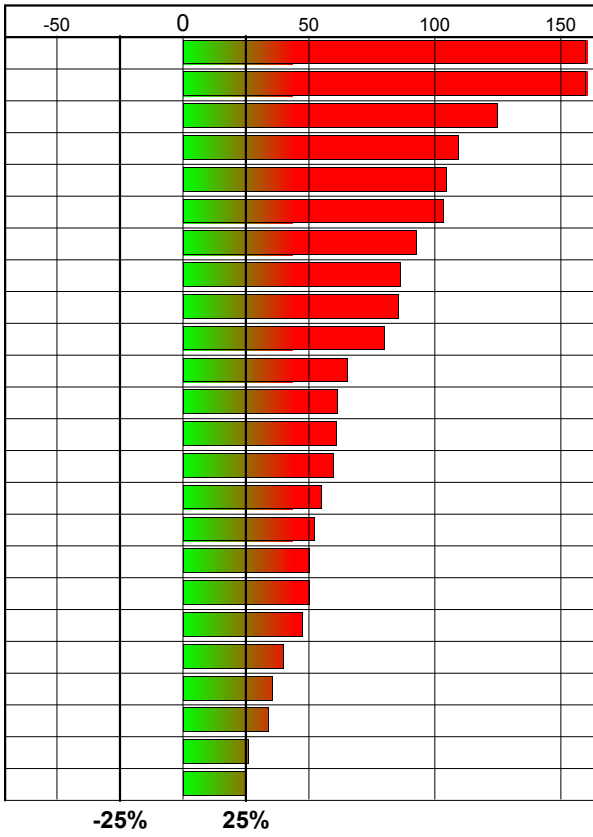
Low Results



	% Status		Result	Low	High
CA Cycle Phase 2	-37.92	L	**0.48**	0.00	4.00
CA Cycle Phase 4	-33.88	L	**0.64**	0.00	4.00
CA Cycle Phase 5	-28.55	L	**10.73**	0.00	50.00

High Results



	% Status		Result	Low	High
Benzoate	386.86	H	**22.28**	0.00	5.10
Formiminoglutamic Acid	231.25	H	**0.45**	0.00	0.16
DHPP	125.00	H	**1.40**	0.00	0.80
2-Methylhippurate	109.46	H	**0.12**	0.00	0.07
p-Hydroxybenzoate	104.55	H	**1.70**	0.00	1.10
CA Cycle Entry	103.51	H	**184.21**	0.00	120.00
Phenylacetate	92.86	H	**0.20**	0.00	0.14
8-Hydroxy-2-deoxyguan	86.36	H	**0.15**	0.00	0.11
Pyruvate	85.71	H	**3.80**	0.00	2.80
Pyroglutamate	80.00	H	**20.80**	0.00	16.00
Tricarballylate	65.38	H	**1.50**	0.00	1.30
Quinolinate	61.43	H	**3.90**	0.00	3.50
a-Hydroxybutyrate	60.91	H	**12.20**	0.00	11.00
Fumarate	60.00	H	**1.10**	0.00	1.00
CA Cycle Return	54.94	H	**1400.00**	125.00	1340.00
Kynurenate	52.50	H	**4.10**	0.00	4.00
cis-Aconitate	50.00	H	**118.00**	50.00	118.00
Phenylpropionate	50.00	H	**0.07**	0.00	0.07
Ethylmalonate	47.50	H	**11.70**	0.00	12.00
Xanthurenate	40.00	H	**0.90**	0.00	1.00
Hippurate	35.71	H	**240.00**	0.00	280.00
Citrate	34.00	H	**700.00**	175.00	800.00
Vanillylmandelate	26.00	H	**4.60**	0.80	5.80
5-Hydroxyindoleacetate	25.41	H	**6.10**	1.50	7.60

Basic Status Report (Alphabetic)

ANNA **Foundational Wellness Profile Date: 6/10/2003**

Female / Age: 51

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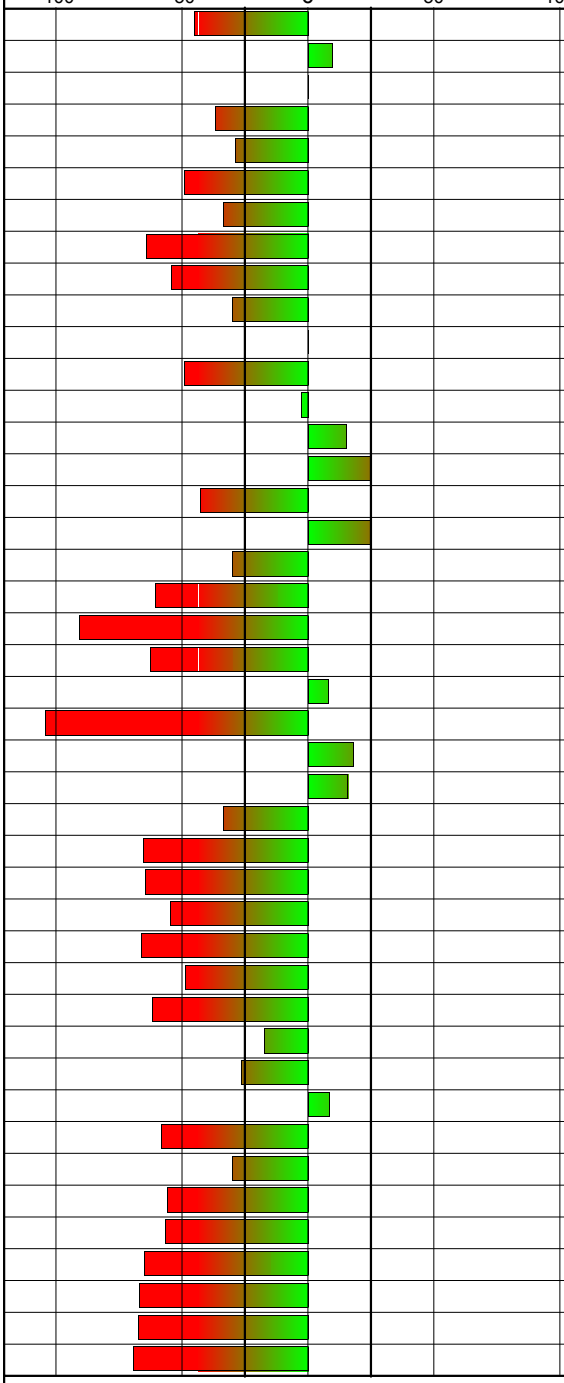

	% Status		Result	*Low*	*High*
1-Methylhistidine - P	**-45.00**	**L**	**1.00**	0.00	20.00
3-Methylhistidine - P	10.00		3.00	0.00	5.00
a-Aminoadipic Acid - P	0.00		2.00	0.00	4.00
a-Amino-N-Butyric Acid - P	**-36.67**	**L**	**14.00**	10.00	40.00
Alanine - P	**-28.86**	**L**	**324.00**	250.00	600.00
Anserine - P	**-49.00**	**L**	**0.01**	0.00	1.00
Arginine - P	**-33.64**	**L**	**68.00**	50.00	160.00
Asparagine - P	**-64.12**	**L**	**33.00**	45.00	130.00
Aspartic Acid - P	**-54.17**	**L**	**5.00**	6.00	30.00
b-Alanine - P	**-30.00**	**L**	**1.00**	0.00	5.00
b-Aminoisobutyric Acid - P	0.00		1.00	0.00	2.00
Carnosine - P	**-49.00**	**L**	**0.01**	0.00	1.00
Citrulline - P	-2.73		41.00	15.00	70.00
Collagen Related AA	15.33		108.00	10.00	160.00
Cystathionine - P	**25.00**	**H**	**3.00**	0.00	4.00
Cystine - P	**-42.50**	**L**	**16.00**	10.00	90.00
Ethanolamine - P	**25.00**	**H**	**6.00**	0.00	8.00
GABA-P	**-30.00**	**L**	**1.00**	0.00	5.00
Glutamic Acid - P	**-60.48**	**L**	**34.00**	45.00	150.00
Glutamine - P	**-90.67**	**L**	**417.00**	600.00	1050.00
Glycine - P	**-62.44**	**L**	**197.00**	225.00	450.00
Glycine/Serine Ratio	8.23		2.37	1.50	3.00
Histidine - P	**-104.29**	**L**	**32.00**	70.00	140.00
Homocystine - P	18.00		0.68	0.00	1.00
Hydroxylysine - P	16.00		0.66	0.00	1.00
Hydroxyproline - P	**-33.33**	**L**	**5.00**	0.00	30.00
Isoleucine - P	**-65.45**	**L**	**33.00**	50.00	160.00
Leucine - P	**-64.55**	**L**	**74.00**	90.00	200.00
Lysine - P	**-54.67**	**L**	**143.00**	150.00	300.00
Methionine - P	**-66.00**	**L**	**21.00**	25.00	50.00
Ornithine - P	**-48.67**	**L**	**52.00**	50.00	200.00
Phenylalanine - P	**-61.58**	**L**	**34.00**	45.00	140.00
Phenylalanine/Tyrosine	-17.11		0.89	0.50	1.70
Phosphoethanolamine - P	**-26.67**	**L**	**7.00**	0.00	30.00
Phosphoserine - P	8.33		7.00	0.00	12.00
Proline - P	**-58.15**	**L**	**108.00**	130.00	400.00
Sarcosine - P	**-30.00**	**L**	**1.00**	0.00	5.00
Serine - P	**-55.83**	**L**	**83.00**	90.00	210.00
Taurine - P	**-56.50**	**L**	**37.00**	50.00	250.00
Threonine - P	**-64.67**	**L**	**78.00**	100.00	250.00
Tryptophan - P	**-66.67**	**L**	**30.00**	35.00	65.00
Tyrosine - P	**-67.14**	**L**	**38.00**	50.00	120.00
Valine - P	**-69.20**	**L**	**122.00**	170.00	420.00
Total Status Deviation	**43.76**				
Total Status Skew	**-38.29**				

Basic Status Report (Alphabetic)

ANNA — **Foundational Wellness Profile Date: 6/10/2003**

Female / Age: 51

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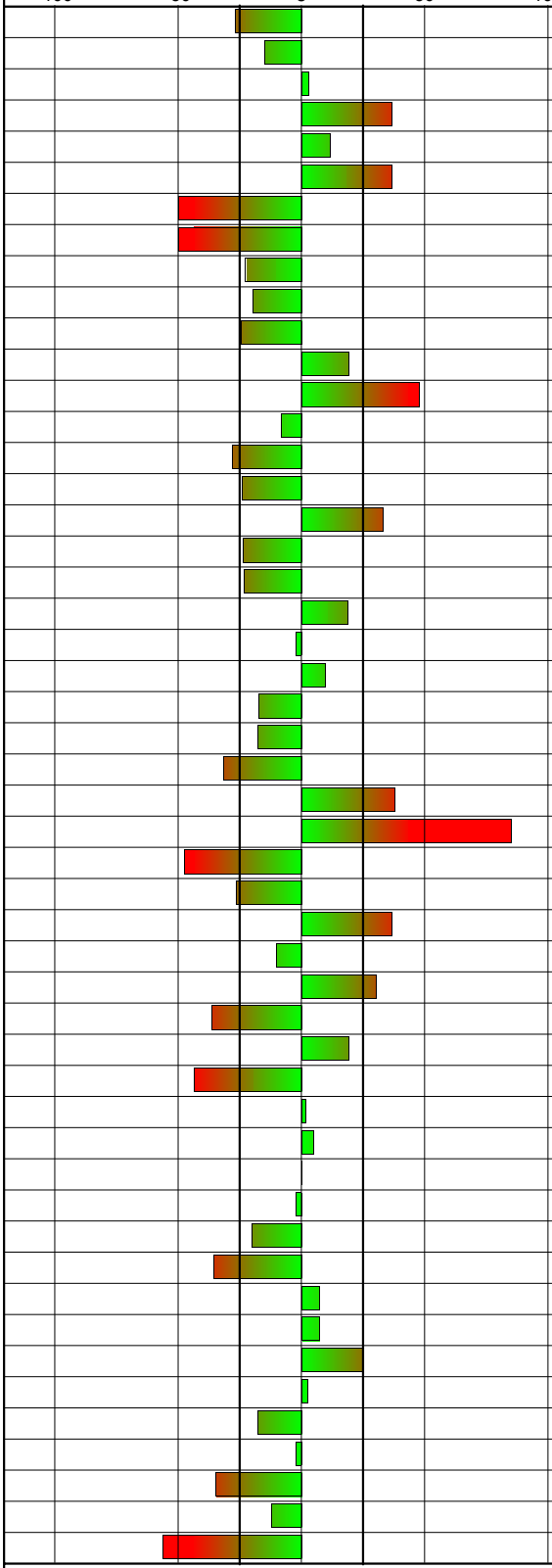

	% Status		Result	Low	High
A/G Ratio	**-26.92**	**L**	**1.40**	1.10	2.40
Albumin	-15.00		4.20	3.50	5.50
Alkaline Phosphatase	2.80		91.00	25.00	150.00
Anion Gap	**36.67**	**H**	**18.40**	8.00	20.00
B.U.N.	11.90		18.00	5.00	26.00
B.U.N./Creatinine Ratio	**36.84**	**H**	**22.50**	6.00	25.00
Basophil Count	**-50.00**	**L**	**0.00**	0.00	200.00
Basophils	**-50.00**	**L**	**0.00**	0.00	3.00
Bilirubin, Total	-22.73		0.40	0.10	1.20
Calcium	-19.57		9.20	8.50	10.80
Calcium/Phosphorus Ratio	-24.44		2.56	2.30	3.30
Chloride	19.23		105.00	96.00	109.00
Cholesterol	**48.00**	**H**	**238.00**	140.00	240.00
CO2	-8.33		25.00	20.00	32.00
Creatinine	**-27.78**	**L**	**0.80**	0.60	1.50
Eosinophil Count	-24.00		180.00	50.00	550.00
Eosinophils	**33.33**	**H**	**5.00**	0.00	6.00
Free T4 Index (T7)	-23.75		6.10	4.00	12.00
GGT	-23.33		16.00	0.00	60.00
Globulin	18.75		3.00	1.90	3.50
Glucose	-2.27		86.00	65.00	109.00
HDL-Cholesterol	10.00		70.00	37.00	92.00
Hematocrit	-17.14		39.60	35.00	49.00
Hemoglobin	-17.50		13.30	12.00	16.00
Iron, Total	**-31.67**	**L**	**57.00**	35.00	155.00
LDH	**38.13**	**H**	**191.00**	50.00	210.00
LDL	**85.29**	**H**	**154.00**	62.00	130.00
Lymphocyte Count	**-47.50**	**L**	**900.00**	800.00	4800.00
Lymphocytes	**-26.67**	**L**	**25.00**	18.00	48.00
MCH	**36.72**	**H**	**32.20**	27.00	33.00
MCHC	-10.35		33.59	32.00	36.00
MCV	**30.40**	**H**	**95.88**	79.00	100.00
Monocyte Count	**-36.22**	**L**	**324.00**	200.00	1100.00
Monocytes	19.23		9.00	0.00	13.00
Neutrophil Count	**-43.61**	**L**	**2196.00**	1800.00	8000.00
Neutrophils	2.00		61.00	48.00	73.00
Phosphorus	5.00		3.60	2.50	4.50
Potassium	0.00		4.40	3.50	5.30
Protein, Total	-2.00		7.20	6.00	8.50
Protein/Globulin Ratio	-20.00		2.40	2.10	3.10
R.B.C.	**-35.62**	**L**	**4.13**	3.90	5.50
sGOT	7.50		23.00	0.00	40.00
sGPT	7.50		23.00	0.00	40.00
Sodium	**25.00**	**H**	**144.00**	135.00	147.00
T-3 Uptake	2.67		31.90	24.00	39.00
Thyroxine (T4)	-17.50		6.60	4.00	12.00
Triglycerides	-2.35		71.00	0.00	149.00
Ultra-Sensitive TSH	**-34.47**	**L**	**1.15**	0.35	5.50
Uric Acid	-12.07		4.60	2.40	8.20
W.B.C.	**-56.15**	**L**	**3.60**	4.00	10.50
Total Status Deviation	**23.76**				
Total Status Skew	**-4.82**				

Basic Status Report (Alphabetic)

ANNA — **Foundational Wellness Profile Date: 6/10/2003**

Female / Age: 51

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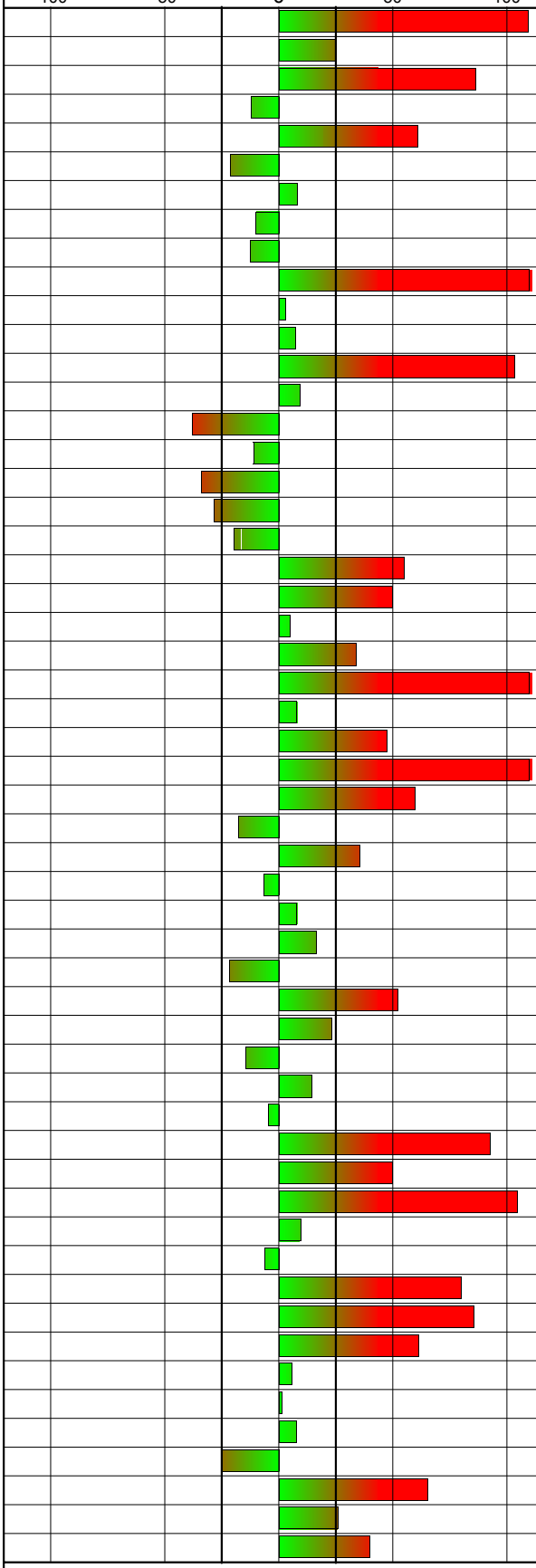

	% Status		Result	Low	High
2-Methylhippurate	**109.46**	**H**	**0.12**	0.00	0.07
5-Hydroxyindoleacetate	**25.41**	**H**	**6.10**	1.50	7.60
8-Hydroxy-2-deoxyguan	**86.36**	**H**	**0.15**	0.00	0.11
Adipate	-11.90		3.20	0.00	8.40
a-Hydroxybutyrate	**60.91**	**H**	**12.20**	0.00	11.00
a-Keto-b-methylvalerate	-21.43		0.40	0.00	1.40
a-Ketoglutarate	8.21		18.30	2.00	30.00
a-Ketoisocaproate	-10.00		0.20	0.00	0.50
a-Ketoisovalerate	-12.50		0.30	0.00	0.80
Benzoate	**386.86**	**H**	**22.28**	0.00	5.10
b-Hydroxybutyrate	3.33		2.40	0.00	4.50
b-Hydroxyisovalerate	7.27		6.30	0.00	11.00
CA Cycle Entry	**103.51**	**H**	**184.21**	0.00	120.00
CA Cycle Phase 1	9.32		5.93	0.00	10.00
CA Cycle Phase 2	**-37.92**	**L**	**0.48**	0.00	4.00
CA Cycle Phase 3	-11.07		3.11	0.00	8.00
CA Cycle Phase 4	**-33.88**	**L**	**0.64**	0.00	4.00
CA Cycle Phase 5	**-28.55**	**L**	**10.73**	0.00	50.00
CA Cycle Phase 6	-19.70		0.45	0.00	1.50
CA Cycle Return	**54.94**	**H**	**1400.00**	125.00	1340.00
cis-Aconitate	**50.00**	**H**	**118.00**	50.00	118.00
Citramalate	5.00		3.30	0.00	6.00
Citrate	**34.00**	**H**	**700.00**	175.00	800.00
DHPP	**125.00**	**H**	**1.40**	0.00	0.80
D-Lactate	7.89		1.10	0.00	1.90
Ethylmalonate	**47.50**	**H**	**11.70**	0.00	12.00
Formiminoglutamic Acid	**231.25**	**H**	**0.45**	0.00	0.16
Fumarate	**60.00**	**H**	**1.10**	0.00	1.00
Glucarate	-17.79		48.00	0.00	149.00
Hippurate	**35.71**	**H**	**240.00**	0.00	280.00
Homovanillate	-6.36		3.40	1.00	6.50
Hydroxymethylglutarate	8.06		5.60	2.00	8.20
Indican	16.28		57.00	0.00	86.00
Isocitrate	-21.67		57.00	40.00	100.00
Kynurenate	**52.50**	**H**	**4.10**	0.00	4.00
Lactate	23.33		8.60	2.00	11.00
Malate	-14.29		0.50	0.00	1.40
Methylmalonate	14.58		3.10	0.00	4.80
Orotate	-4.55		0.50	0.00	1.10
Phenylacetate	**92.86**	**H**	**0.20**	0.00	0.14
Phenylpropionate	**50.00**	**H**	**0.07**	0.00	0.07
p-Hydroxybenzoate	**104.55**	**H**	**1.70**	0.00	1.10
P-Hydroxyphenylacetate	10.00		27.00	0.00	45.00
p-Hydroxyphenyllactate	-6.16		0.32	0.00	0.73
Pyroglutamate	**80.00**	**H**	**20.80**	0.00	16.00
Pyruvate	**85.71**	**H**	**3.80**	0.00	2.80
Quinolinate	**61.43**	**H**	**3.90**	0.00	3.50
Suberate	5.56		1.50	0.00	2.70
Succinate	1.58		11.80	2.00	21.00
Sulfate	7.78		284.00	180.00	360.00
Tartarate	-24.55		2.80	0.00	11.00
Tricarballylate	**65.38**	**H**	**1.50**	0.00	1.30
Vanillylmandelate	**26.00**	**H**	**4.60**	0.80	5.80
Xanthurenate	**40.00**	**H**	**0.90**	0.00	1.00
Total Status Deviation	**44.71**				
Total Status Skew	**26.53**				

Nutritional Support

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

- ☐ **1-Amino Acid Complex**
  8-10 grams daily
- ☐ **1-Customized Amino Acids**
  8-10 grams daily
- ☐ **1-Digestive Enzymes**
  With meals
- ☐ **1-Pyridoxal-5-Phosphate**
  2x daily 50 mg
- ☐ **1-Vitamin B6**
  2x daily 50 mg
- ☐ **1-Vitamin E**
  2x daily 800 IU
- ☐ **2-Blood Sugar Protocol #2**
  See Nutrition-Detail
- ☐ **2-Magnesium Citrate or Glycinate**
  2x daily 150 mg
- ☐ **2-Vitamin C**
  1x daily 1000 mg
- ☐ **3-Acetic Acid**
  2x daily 1 tsp. (in 8 oz distilled water)
- ☐ **3-Glucosamine Sulfate**
  3x daily 500 mg
- ☐ **H - Green Tea**
  1 - 3 times daily (Can be used as a drink)
- ☐ **1-CAC Entry Protocol**
  See Nutrition Detail
- ☐ **1-Detoxification Protocol**
  See Nutrition Detail
- ☐ **1-Folic Acid**
  2x daily 800 mcg
- ☐ **1-Saccharomyces boulardii**
  1-2 capsules with each meal
- ☐ **1-Vitamin B6**
  2x daily 50 mg
- ☐ **1-Yeast Reduction Protocol2**
  2x daily 500 mg
- ☐ **2-Glutathione (reduced)**
  2x daily 250 mg
- ☐ **2-Trace Minerals**
  1x daily
- ☐ **3-5-Hydroxy-Tryptophan (5-HTP)**
  2x daily 50 mg
- ☐ **3-Bromelain**
  3x daily 500 mg (Before meals)
- ☐ **H - Garlic**
  1 - 3 times daily

Nutritional Supplements to AVOID

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

H - Billberry Lactoferrin Sodium

Food Recommendations

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

Apricots, Dried	Artichoke	Beef	Blueberries
Bok Choy Cabbage	Boysenberries	Broccoli	Brown Rice
Butter Beans	Cheddar Cheese	Clams	Cornish Game Hens
Cucumber	Duck	Fava Beans	Flounder
Goose	Grapefruit	Green Beans	Gruyere Cheese
Guava	Haddock	Halibut	Honeydew Melon
Kale	Kidney Beans	Mackerel	Mozarella Cheese
Mushrooms	Mussels	Navy Beans	Orange
Oysters	Peanuts	Plaintains	Potatoes
Prawns	Pumpkin	Rabbit	Red Peppers
Salmon	Snapper	Sole	Strawberries
Sturgeon	Trout	Tuna	Turkey
Veal	Venison	Walnuts	Wild Rice
Yams			

Foods to AVOID

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

Anchovies	Bacon	Barbeque Sauce	Chipped Beef
Coffee	Corned Beef	Dill Pickles	Escargot
Fast Foods	Ham	Hydrogenated Fats	Liver Pate
Pastrami	Sauerkraut	Soy Sauce	

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
Intestinal Dysbiosis	70.18%	65.46%
Essential Amino Acid	65.07%	-65.07%
Immune Metabolites	59.41%	-59.41%
Fat Metabolism	58.57%	-58.57%
Gluconeogen	55.69%	-55.69%
Neuroendocrine Met.	54.38%	-54.38%
Hepatic Metabolism	46.79%	-34.50%
CNS Metabolism	46.36%	-40.30%
Ammonia/Energy	45.21%	-45.21%
Connective Tissue	44.97%	-38.47%
Carbohydrate Metabolism	43.32%	43.32%
Differential Count	40.27%	-40.27%
Liver Detox Indicators	38.26%	30.82%
Muscle Metabolites	38.25%	-33.25%
CAC Cycle Ratios	37.36%	4.58%
Neurotransmitters	34.34%	31.79%
Allergy	30.83%	-2.30%
Hematology	29.13%	-9.95%
Gastrointest. Function	27.12%	24.75%
Differential	26.25%	-4.42%
Adrenal Function	26.07%	16.47%

Lab Reported out-of-range Values

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

Benzoate (386.86%)

An elevated reading of this organic acid may mean an overgrowth of certain intestinal microbiota. The presence of this compound may be due to the action of the bacteria on phenylalanine. Assessment of amino acid competancy may be helpful.

Formiminoglutamic Acid (231.25%)

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

DHPP (125.00%)

Elevated levels may occur with an overgrowth of Clostridium. There are approximately 100 species of which 50 are known to be pathogenic. Clostridium is susceptible to Saccharomyces boulardii, flagyl, vancomycin, and biocidin, but antifungals result in increased overgrowth

2-Methylhippurate (109.46%)

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

p-Hydroxybenzoate (104.55%)

Elevated levels may be indicative of overgrowth of intestinal bacterial or protozoa. This organic acid when high along with high p-Cresol and p-Hydroxyphenylacetate may be indicative of a tyrsosine deficiency. A comprehensive amino acid test may be helpful.

Histidine - P (-104.29%)

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.

Drugs which may have an adverse affect:
Salicylates, Steroids

CA Cycle Entry (103.51%)
A high result for the marker respresenting the entry into the citric acid may indicate carbohydrate metabolism impairment especially if pyruvate and/or lactate are elevated. Possibilities causing this particular blockade include mercury, arsenic or petrochemical exposure.

Phenylacetate (92.86%)
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.

Glutamine - P (-90.67%)
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.

8-Hydroxy-2-deoxyguan (86.36%)
A high reading of 8-Hydroxy-2-deoxyguanosine is an indicator of oxidative DNA damage. A regime of antioxidants as well as restricting fat intake has been suggested to be a way of lowering this component of aging.

Pyruvate (85.71%)
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.

LDL (85.29%)
LDL is the cholesterol rich remnants of the lipid transport vehicle VLDL (very-low density lipoproteins). There have been many studies showing correlations between high levels of LDL and arterial artherosclerosis. Due to the expense of direct LDL measurement, a calculation known as the Friedewald formula is used (Total Cholesterol - HDL Cholesterol - Triglycerides/5). When Triglyceride levels are greater than 400, this method is not accurate. Increased levels are seen in high cholesterol diets, nephrotic syndromes, multiple myeloma, hepatic obstruction or disease, anorexia nervosa, diabetes, chronic renal failure, and premature coronary heart disease.

Pyroglutamate (80.00%)
A high level may be due to glutathione depletion as this organic acid is formed in the kidney from the amino acid glutathione.

AA Competency (-72.73%)
This ratio evaluates the general levels of the essential amino acids. Since they can only be gotten from diet or supplements it is important to increase intake of these components of protein.

Valine - P (-69.20%)
Valine is one of the branched chain amino acids (BCAA) a group of essential amino acids (with leucine and isoleucine) involved in handling of stress, energy production, and muscle metabolism. Balanced supplementation of BCAA's has been reported to be effective in chronic liver disease, anorexia, recovery from surgery, and endocrine functioning. A low plasma level of valine may be due to muscle loss or inadequate stomach acid if other essential amino acids are also low.

Tyrosine - P (-67.14%)
Tyrosine is an important amino acid in dealing with stress, fatigue, ADD, depression, blood pressure disorders, and hypothyroidism. It is a precursor to thyroid and adrenocortical hormones and dopamine. Low levels are found in many of the aforementioned conditions.

Tryptophan - P (-66.67%)
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 low result may be indicative of depression and insomnia.

Drugs which may have an adverse affect:
Aspirin

AA Competency-2 (-66.54%)
This ratio evaluates the general levels of the essential amino acids. Since they can only be gotten from diet or supplements it is important to increase intake of these components of protein.

Methionine - P (-66.00%)
An essential amino acid, you can only get methionine from dietary or supplemental sources. It is important that adequate vitamin B6 is available, otherwise methionine may over convert to homocysteine and throw arginine and/or ornithine out of balance. Low plasma levels may be indicative of poor dietary intake of protein or poor quality of protein. May adversely effect sulfur metabolism.

Isoleucine - P (-65.45%)
Isoleucine is one of the branched chain amino acids (BCAA) a group of essential amino acids (with leucine and valine) involved in handling of stress, energy production, and muscle metabolism. Balanced supplementation of BCAA's has been reported to be effective in chronic liver disease, anorexia, recovery from surgery, and endocrine functioning. A low reading could be indicative of hypoglycemia, loss of muscle mass or the inability to build muscle.

Tricarballylate (65.38%)
Elevated levels may be due to an overgrowth of intestinal bacteria. This organic acid binds very tightly to magnesium and may induce a deficiency in this important trace mineral. The bacteria that produces this element is also very fast growing.

Threonine - P (-64.67%)
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.

Leucine - P (-64.55%)
Leucine is one of the branched chain amino acids (BCAA) a group of essential amino acids (with isoleucine and valine) involved in handling of stress, energy production, and muscle metabolism. Balanced supplementation of BCAA's has been reported to be effective in chronic liver disease, anorexia, recovery from surgery, and endocrine functioning. A low plasma level of leucine may be indicative of catabolization of skeletal muscle. Especially true if 3-methylhistidine is high.

Asparagine - P (-64.12%)
Asparagine is a non-essential amino acid synthesized from aspartic acid and ATP. A low result may be indicative of a functional magnesium deficiency.

Glycine - P (-62.44%)
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.

Phenylalanine - P (-61.58%)
May be indicative of altered thyroid function or catecholamine deficits. Symptoms may include depression, memory loss, fatigue, cognitive disorders, stress, and autonomic dysfunction. Phenylalanine is an essential amino acid and is converted to tyrosine in the liver by phenylalanine hydroxylase. Nutrients needed for this amino acid's metabolism are folic acid, iron, niacin, pyridoxine, copper, and vitamin C.

Quinolinate (61.43%)
A high reading of quinolinate is indicative of oxidative stress that may be favorably resolved by the use of vitamin E.

a-Hydroxybutyrate (60.91%)
Elevations of this organic acid are seen in poor carbohydrate metabolism.

Glutamic Acid - P (-60.48%)
Glutamic acid is considered a excitatory nerotransmitter. It is critical in removing excess ammonia from the brain as well as helping deal with symptoms such as headache, irritability, and fatigue. A low plasma level of glutamic acid may be indicative of hyperammonemia especially if high glutamine is present.

Fumarate (60.00%)
Elevated fumarate is indicative of a Coenzyme Q10 deficiency.

AA Competency-1 (-58.15%)
This ratio evaluates the general levels of the essential amino acids. Since they can only be gotten from diet or supplements it is important to increase intake of these components of protein.

Proline - P (-58.15%)
May be indicative of a defect in connective tissue synthesis.

Taurine - P (-56.50%)
Taurine is known as an inhibitory amino acid because of its ability to control excitable tissues and its use in seizure activity. It also is helpful in cases of congestive heart disease as well as in the prevention of stroke. Low levels may be indicative of oxidative stress, fat maldigestion, artherosclerosis, angina, seizure disorders, or arrhythmias. Females are more likely to have a taurine synthesis problem than males.

W.B.C. (-56.15%)
The white blood cells' main function is to fight infection, defend the body by phagocytosis against invasion by foreign organisms, and to produce, or at least transport and distribute, antibodies in the immune response. Each type of cell, or leukocyte, has a different job in the body, which is explained in the Differential section. Decreased levels of white blood cells, leukopenia, may occur during certain viral infections, hypersplenism, drugs, primary bone disorders, fungal infections, metastatic tumors, and iron deficiency anemia.

Drugs which may have an adverse affect:
Acetaminophen, Allopurinol, Amantadine, Amitriptyline, Ampicillin, Aspirin, Busulfan, Carbamazepine, Chlorpromazine, Clindamycin, Clofibrate, Desipramine, Diazepam, Erythromycin, Fluorides, Fluphenazine, Griseofulvin, Haloperidol, Hydroxyurea, Ibuprofen, Imipramine, Indomethacin, Kanamycin, Levodopa, Lincomycin, MAO Inhibitors, Mercaptopurine, Methimazole, Methotrexate, Methyldopa, Miconazole, Neomycin, Nitrofurantoin, Paramethadione, Penicillamine, Penicillin, Phenelzine, Phenobarbital, Phenylbutazone, Phenytoin, Piroxicam, Polythiazide, Prednisone, Procainamide, Procarbazine, Protriptyline, Rifampin, Streptomycin, Sulfamethizole, Sulfamethoxazole, Sulfasalazine, Sulfisoxazole, Tamoxifen, Tetracycline, Trimethadione, Valproic Acid, Vancomycin

Foods which may have an adverse affect:
Coffee

Serine - P (-55.83%)
Serine is a key amino acid can be converted to glycine and vice versus. It is crucial in the production of many neurotransmitters. It is also important in DNA synthesis, gluconeogenesis and in the creation of many hormones and enzymes. A low result may be indicative of a deficit in acetylcholine synthesis, or methionine metabolism.

CA Cycle Return (54.94%)
As the citric acid returns to the beginning through the conversion of Malate to Citrate through Oxalacetate, a high result may be due to low amino acid reserves especially aspartic acid.

Lysine - P (-54.67%)
Lysine, an essential amino acid, is crucial in carbohydrate metabolism and the creation of the amino acids citrulline and carnitine, as well as in the development of collagen. A low plasma level of lysine may be due to poor dietary intake and/or excessive intake of arginine and/or ornithine. May inhibit collagen production.

Aspartic Acid - P (-54.17%)
Aspartic acid is a non-essential amino acid made from glutamate utilizing vitamin B6 in this conversion. It is involved in the urea and Krebs cycle (ammonia metabolism and carbohydrate metabolism). An excitatory amino acid, aspartic acid has been studied for the treatment of unipolar depression. This reading may be indicative of the inability to detoxify, especially ammonia. Fatigue may result from low levels.

Kynurenate (52.50%)
A high reading of this by-product of amino acid breakdown is consistant with a vitamin B6 deficiency. Abnormally high levels can adversely affect brain function.

Basophil Count (-50.00%)
Basophil cells are a type of white blood cell linked to allergic reactions. Low readings are common and are not considered to be clinically significant.

Basophils (-50.00%)
Basophil cells are a type of white blood cell linked to allergic reactions. Low readings are common and are not considered to be clinically significant.

Drugs which may have an adverse affect:
Procainamide

cis-Aconitate (50.00%)

A member of the citric acid cycle, an elevated level of this organic acid may be an indication of poor supplies or metabolism of amino acids. A clinical sign is fatigue.

Phenylpropionate (50.00%)

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

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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.

Rationale

Decreased	Normal	Increased
Glutamine - P Leucine - P Isoleucine - P		B.U.N./Creatinine Ratio

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

Decreased	Normal	Increased
		CA Cycle Entry

1-Customized Amino Acids 8-10 grams daily

CUSTOMIZED AMINO ACIDS

A pattern suggesting amino acid insufficiency may be due to inadequate protein intake, chronic illness or malabsorption. Intake of a customized free-form amino acid supplement with appropriate nutrient cofactors (such as My AminoPlex) is advised.

Decreased	Normal	Increased
AA Competency		

1-Detoxification Protocol See Nutrition Detail

DETOXIFICATION PROTOCOL

Due to the elevated level of 2-Methylhippurate, is 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

Decreased	Normal	Increased
		2-Methylhippurate Hippurate

1-Digestive Enzymes With meals

DIGESTIVE ENZYMES

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

Decreased	Normal	Increased
	Triglycerides	Cholesterol LDL

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

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

Rationale

Decreased	Normal	Increased
		Cystathionine - P

1-Saccharomyces boulardii 1-2 capsules with each meal

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

Decreased	Normal	Increased
		DHPP

1-Vitamin B6 2x daily 50 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.of fat and transport of long-chain essential fatty acids as well as being cardiac protective. Kynurenate is a strong marker for Vitamin B6 deficiency.

Decreased	Normal	Increased
		Kynurenate

1-Vitamin B6 2x daily 50 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.of fat and transport of long-chain essential fatty acids as well as being cardiac protective. Kynurenate is a strong marker for Vitamin B6 deficiency.

Decreased	Normal	Increased
		Xanthurenate

1-Vitamin E 2x daily 800 IU

VITAMIN E
Vitamin E is a major antioxidant, scavenging free radicals - enhancing lymphocyte production, increasing nitrogen retention, maintaining cellular integrity, and aiding in the biosynthesis of heme proteins.
8-Hydroxy-2-deoxyguanosine elevation has been equated to excessive oxidative stress which would benefit from Vitamin E supplementation.

Decreased	Normal	Increased
		8-Hydroxy-2-deoxyguan

1-Yeast Reduction Protocol2 2x daily 500 mg

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

Decreased	Normal	Increased
		Bacteria2

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2-Blood Sugar Protocol #2 See Nutrition-Detail

Rationale

Decreased	Normal	Increased
Isoleucine - P Alanine - P Threonine - P		

BLOOD SUGAR PROTOCOL #2
When certain blood sugar and lipid markers are abnormal, the following protocol is recommended: Zinc (25-30 mg 1 time daily), Magnesium (400 mg 1 time daily), Broad Spectrum Fatty Acids (1 time daily), B-Complex (1 time daily) and Trace Mineral Complex (1 time daily)
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.
MAGNESIUM (Mg)
Second most abundant cation in intracellular fluid. 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.
BROAD SPECTRUM FATTY ACID
Broad spectrum fatty acids, high in Omega-3, -6 and -9 have shown a potential ability to improve immune function.
B-COMPLEX VITAMINS
B complex vitamins are involved in a broad spectrum of cell metabolic deficiencies as well as fatty acid utilization.
TRACE MINERALS
Trace minerals are critical in almost all enzymatic reactions. A proper balance is crucial in the proper utilization of vitamins, fats and carbohydrates. Important as a part of any targeted fatty acid supplementation protocol along with electrolytes and a B-vitamin complex.

2-Glutathione (reduced) 2x daily 250 mg

Decreased	Normal	Increased
		Pyroglutamate

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

2-Magnesium Citrate or Glycinate 2x daily 150 mg

Decreased	Normal	Increased
		Ethanolamine - P

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

2-Trace Minerals 1x daily

Decreased	Normal	Increased
Lymphocyte Count Neutrophil Count W.B.C. R.B.C.		

TRACE MINERALS - In addition to Protocols
Trace minerals are critical in almost all enzymatic reactions. A proper balance is crucial in the proper utilization of vitamins, fats and carbohydrates.

2-Vitamin C 1x daily 1000 mg

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

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

3-5-Hydroxy-Tryptophan (5-HTP) 2x daily 50 mg

Decreased	Normal	Increased
Tryptophan - P		

TRYPTOPHAN
A carbon skeleton indispensible amino acid, tryptophan is the precursor to the neurotransmitter serotonin. The only form available presently is 5-HTP.

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3-Acetic Acid 2x daily 1 tsp. in 8 oz distilled water

ACETIC ACID - Vinegar
Acetic acid has been shown to lower sodium levels in part by combining with the sodium ion and creating sodium acetate which is removed by the kidneys.

Rationale

Decreased	Normal	Increased
		Sodium

3-Bromelain 3x daily 500 mg Before meals

BROMELAIN
A enzyme present in pineapple stems, it has been shown to alter inflammatory protaglandin synthesis through interference with the arachadonic cascade.

Decreased	Normal	Increased
W.B.C.		LDH Eosinophils

3-Glucosamine Sulfate 3x daily 500 mg

GLUCOSAMINE SULFATE
Substrate for chondroitin sulfate and hyaluronic acid which provide framework for collagen. Provide fluidity for connective tissues, essential for structural molecules that hold cells together.

Decreased	Normal	Increased
	CO2 Chloride	LDH

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

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

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

Decreased	Normal	Increased
		Cholesterol Anion Gap

AVOID THE FOLLOWING SUPPLEMENTS

AVOID H - Billberry

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

Decreased	Normal	Increased
Iron, Total		

AVOID Lactoferrin

LACTOFERRIN - CONTRAINDICATED IN PREGNANCY
Lactoferrin is a immunoregulatory iron-binding protein closely related to the plasma iron-transporting protein transferrin. Lactoferrin is anti-inflammatory with antifungal, antiviral, and antibacterial properties as well as being supportive in conditions involving immune incompetency. Lactoferrin is contraindicated during pregnancy.

Decreased	Normal	Increased
Iron, Total		

AVOID Sodium

SODIUM (Na)
Sodium is the major extracellular fluid cation. It is responsible for and helps determine the volume of extracellular fluid as it is responsible for almost one-half of plasma osmolarity. Sodium facilitates impulse transmission in nerve and muscle fibers by its involvement in the sodium-potassium pump.

Decreased	Normal	Increased
		Sodium

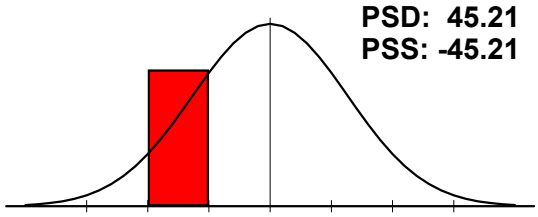
Drugs listed below tend to further aggravate elements of blood chemistry that are out of range (H or L). The (#) after each drug denotes the number of times that drug is flagged as being potentially harmful.

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

Ammonia/Energy

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

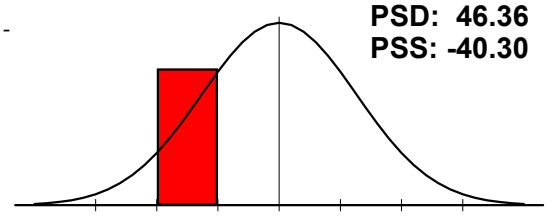
A panel profile such as this may be indicative of inadequate protein intake, poor absorption or poor quality protein intake.



CNS Metabolism

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

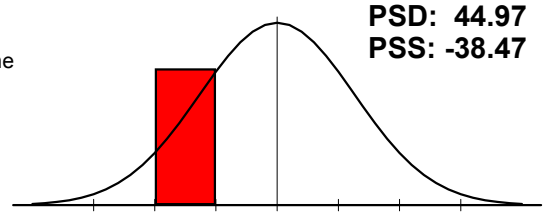
The panel profile seen here may be indicative of poor central nervous system functioning including memory loss, fatigue, poor concentration.



Connective Tissue

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

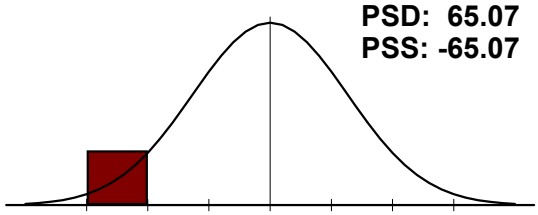
A profile such as this may be indicative of poor collagen and other tissue formation.



Essential Amino Acid

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

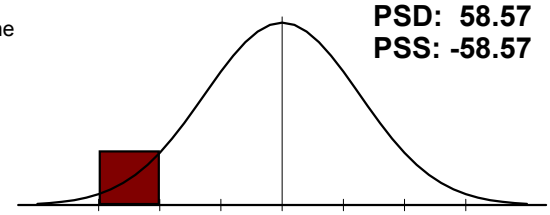
The panel profile seen here indicates a low density of essential amino acids. Since they cannot be synthesized in the human body, these building blocks must be taken in via diet or supplements.



Fat Metabolism

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

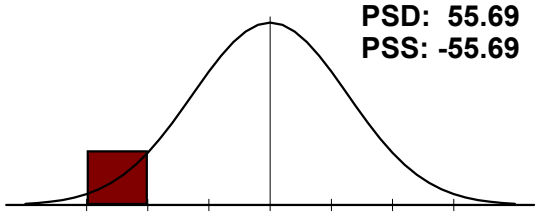
A panel profile such as this may indicate an inability of the body to properly metabolize dietary fats. Check for dysbiosis, or try supplementation with lipase digestive enzymes as well as broad spectrum amino acids.



Gluconeogen

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

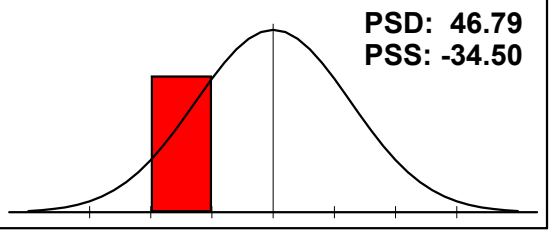
This panel profile may be indicative of hypoglycemia or poor dietary protein intake.



Hepatic Metabolism

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

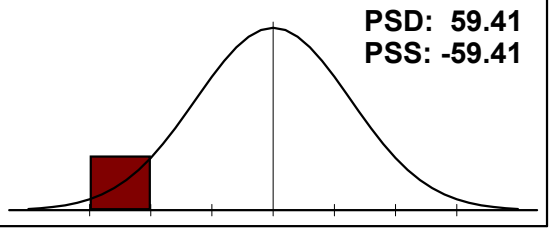
A panel profile such as this may be indicative of an underfunctioning liver or poor dietary protein intake.



Immune Metabolites

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

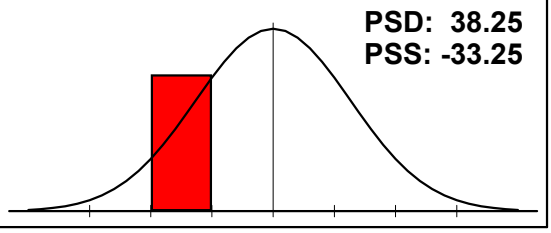
A panel profile such as this may be indicative of a poor functioning immune system or low dietary intake of protein.



Muscle Metabolites

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

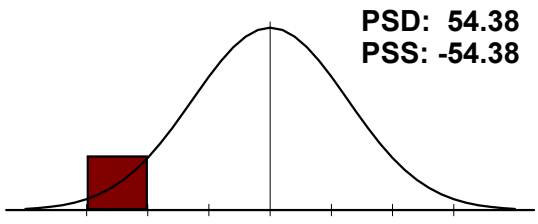
This panel profile may be indicative of the lack of ability in building muscle or a poor dietary intake of protein.



Neuroendocrine Met.

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

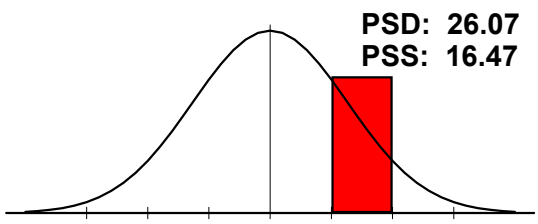
This panel profile may be indicative of an underfunctioning endocrine system or poor dietary intake of protein.



Adrenal Function

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

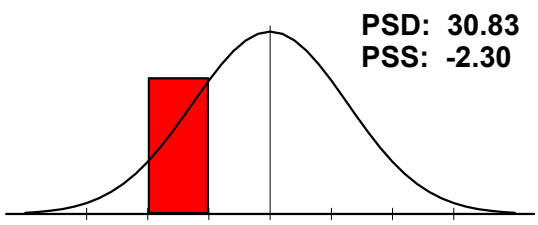
This profile may be in part due to poor nutritional habits, allergies and inadequate fluid intake. Clinical signs may include inability to handle stress, poor circulation, and fatigue.



Allergy

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

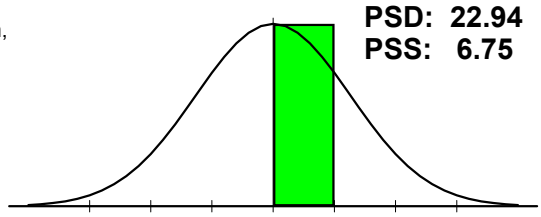
This panel profile may be due to a general mineral deficiency. Correlate this with the Differential and Differential Count Panels for additional information. If the Differential Count Panel Skew is low and the Differential is a abnormal (>25% off), than suspect a general nutrient deficiency also.



Anti Oxidant Status

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

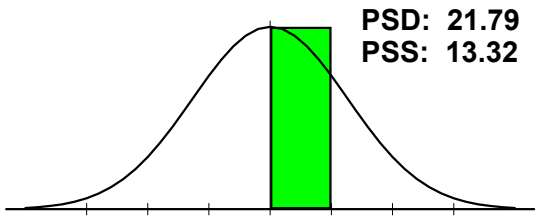
The elements in this panel help represent the antioxidant status of the individual. Excesses of deficiencies in this panel may indicate the need for additional antioxidants. The deviation was below 25% so no abnormalities were found.



Athletic Potential

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

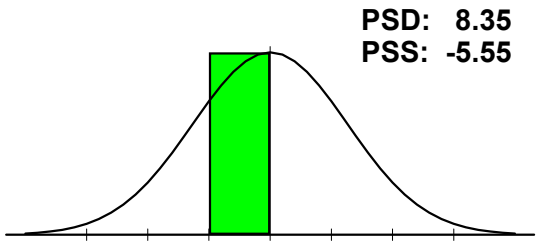
This panel is used to help assess athletic potential. Keeping this panel in a normal range may be helpful in improving athletic performance and reducing the risk of injury. The deviation was below 25% so no abnormalities were found.



Bone/Joint

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

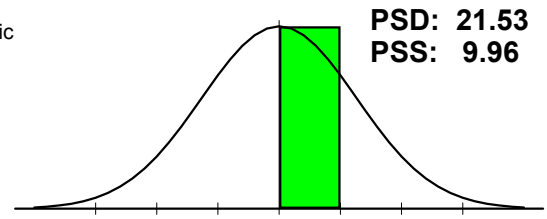
This panel may be helpful in assessing bone and joint health. Keeping the elements of this panel in a normal range may be helpful in reducing the risk of osteoporosis and other bone and joint disorders. The deviation was below 25% so no abnormalities were found.



Cardiac Marker

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

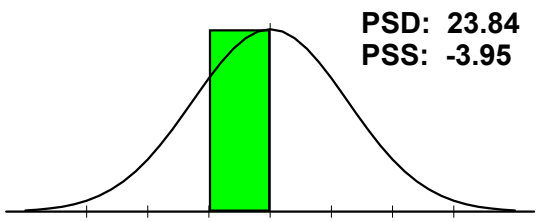
This panel may be helpful in assessing cardiovascular disease risk. Keeping the elements in this panel in a normal range is important in reducing the risk of CVD. The deviation was below 25% so no abnormalities were found.



Cellular Distortions

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

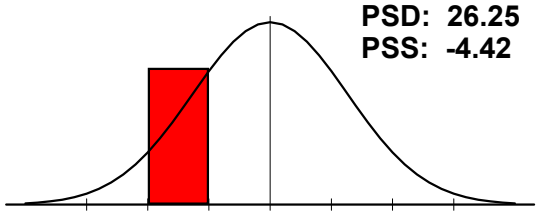
This panel may be helpful in determining the ability of the body to properly produce healthy cells. The deviation was below 25% so no abnormalities were found.



Differential

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

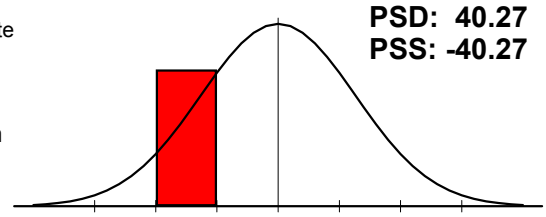
This panel profile may be indicative of an immune system response. A careful review of the individual components of this panel is recommended.



Differential Count

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

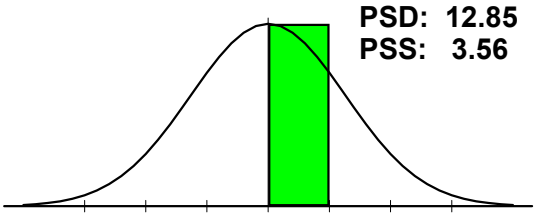
The negative Panel Status Skew may be due to the immune system being at rest if the Differential Panels Deviation is less than 25%, if it is higher than 25% than suspect a weakened or compromised immune system.



Electrolyte

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

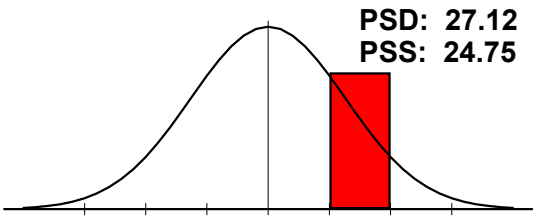
This panel is a representation of electrolyte balance in blood. Balance is critical in maintaining and achieving optimal health. The deviation was below 25% so no abnormalities were found.



Gastrointest. Function

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

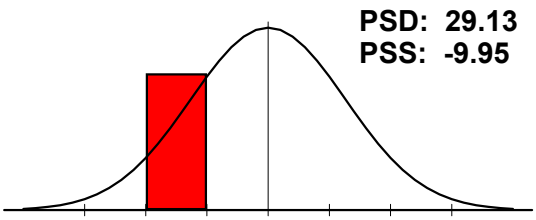
This panel profile indicates the need for further evaluation of gastrointestinal integrity, digestion and absorption. Check for dysbiosis, food allergies or "leaky gut" syndrome.



Hematology

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

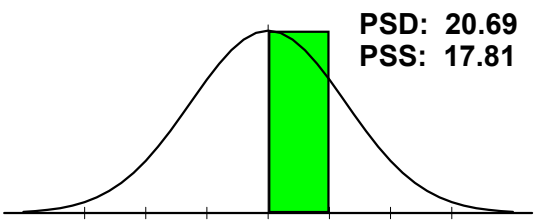
A profile such as this indicates the potential for anemias, overhydration, malnutrition, nutrient depletion, and heavy metal exposure (this list is not all-inclusive).



Inflammatory Process

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

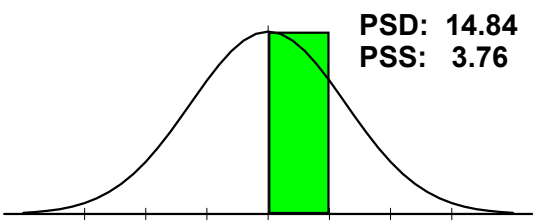
This panel may be helpful in assessing any inflammatory processes that may be occuring in the body. The deviation was below 25% so no abnormalities were found.



Kidney Function

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

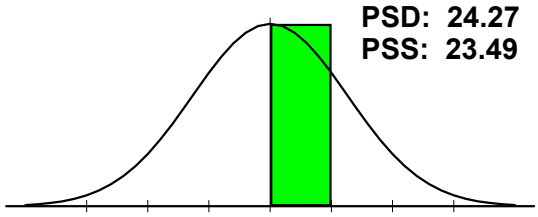
This panel may be helpful in assessing kidney function. It is important to keep the elements of this subset in balance to help the body eliminate waste material. The deviation was below 25% so no abnormalities were found.



Lipid

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

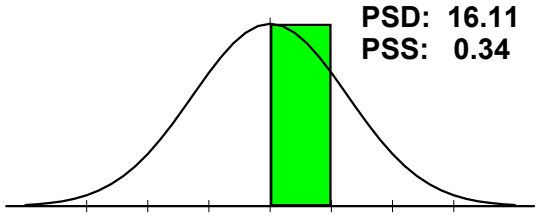
Lipid assessment is important in helping achieve optimal wellness as well as reducing cardiovascular disease risk. The deviation was below 25% so no abnormalities were found.



Liver Function

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

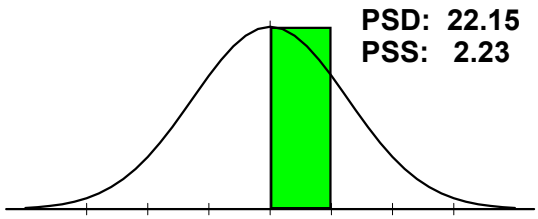
Assessing liver function is important in determining the individual's ability to detoxify itself as well as processing amino acids and other important biological processes. The deviation was below 25% so no abnormalities were found.



Nitrogen

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

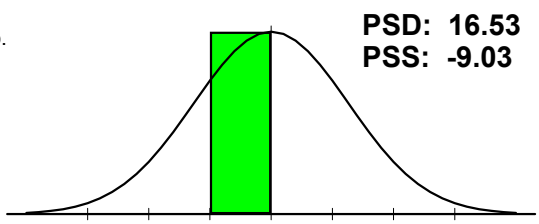
Nitrogen is an important element in achieving optimal wellness. The elements in this panel are important in determining nitrogen competency. The deviation was below 25% so no abnormalities were found.



Protein

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

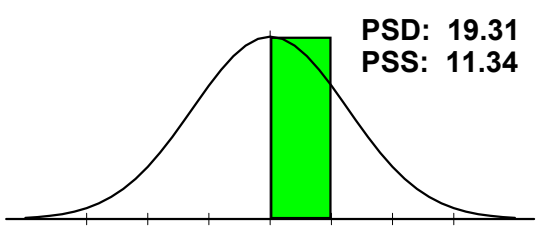
Proteins are the basic building blocks of hormones, muscle, neurotransmitters, immune systems responses and more. Assessing their competency is crucial in achieving optimal wellness. The deviation was below 25% so no abnormalities were found.



Pulmonary Function

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

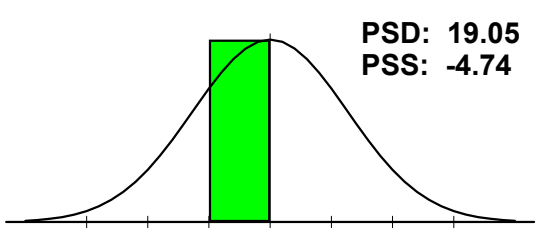
This panel may be helpful in assessing lung and respiratory function. The deviation was below 25% so no abnormalities were found.



Ratios

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

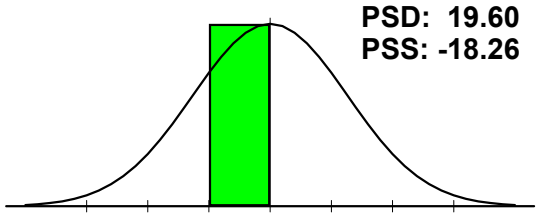
This panel may be helpful in determining the general balance of the overall chemistry of the individual. The deviation was below 25% so no abnormalities were found.



Thyroid

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

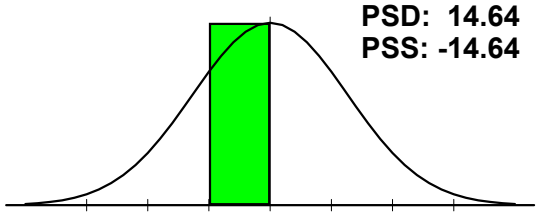
This panel may be helpful in determining the overal health of the thyroid gland. The deviation was below 25% so no abnormalities were found.



Amino Acid Catabolism

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

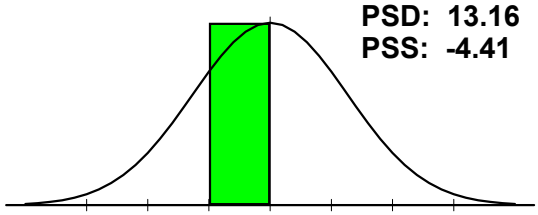
A normal reading in this panel suggest proper amino acid stores.



B-Complex Markers

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

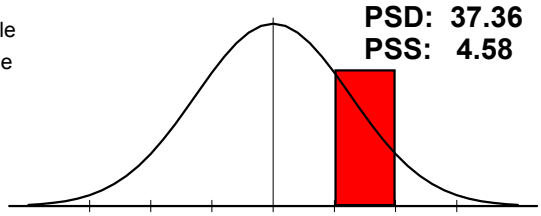
A normal panel profile such as this is an indicator of adequate intake of B-complex vitamins.



CAC Cycle Ratios

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

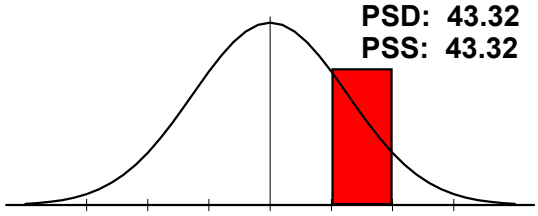
This panel reflects steps of the citric acid cycle. A high reading may be indicative of poor energy production and/or vitamin, mineral and amino acid deficiencies.



Carbohydrate Metabolism

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

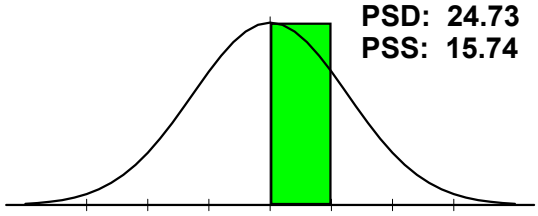
The panel profile seen here may be due to impaired carbohydrate metabolism, inefficient utilization or poor mobilization of carbohydrates. Often, B-complex vitamins are helpful in balancing these results. See Nutritional Support for further details.



Citric Acid Cycle

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

A normal reading such as this is consistant with a properly functioning citric acid cycle.

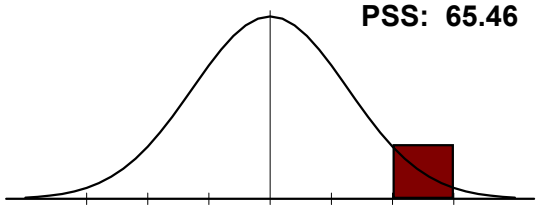


Intestinal Dysbiosis

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

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

PSD: 70.18
PSS: 65.46

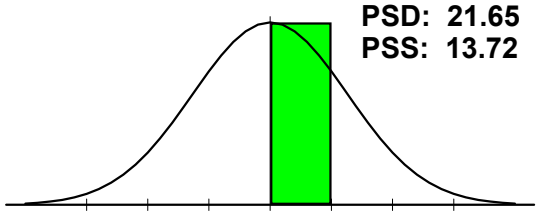


Lipid Metabolism

Adipate, Suberate, Ethylmalonate[H].

This panel profile is indicative of proper lipid metabolism.

PSD: 21.65
PSS: 13.72

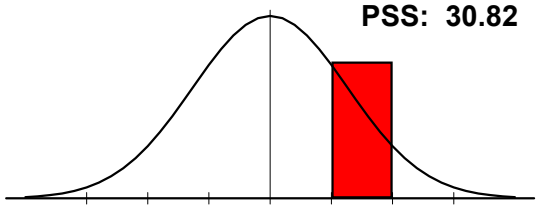


Liver Detox Indicators

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

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.

PSD: 38.26
PSS: 30.82

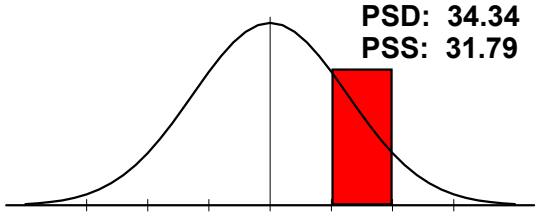


Neurotransmitters

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

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

PSD: 34.34
PSS: 31.79



This report "MATCHES" clinical observations with the lab test. Elements shown, normal and abnormal, tend to characterize the observation. Highlighted elements are those reported to "MATCH" the characteristics of the clinical observation. Others are NOT matches but are elements in the observation.

Cystathioninuria (270.4) — 100.00% (1 of 1)

Decreased	Normal	Increased
		25.00 Cystathionine - P

Depression () — 100.00% (4 of 4)

Decreased	Normal	Increased
-66.00 Methionine - P		
-61.58 Phenylalanine - P		
-66.67 Tryptophan - P		
-67.14 Tyrosine - P		

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

Decreased	Normal	Increased
-54.17 Aspartic Acid - P		

Impaired Ca+ and Zn Transport () — 100.00% (2 of 2)

Decreased	Normal	Increased
-49.00 Anserine - P		
-49.00 Carnosine - P		

Mild Hyperammonemia () — 100.00% (1 of 1)

Decreased	Normal	Increased
-60.48 Glutamic Acid - P		

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

Decreased	Normal	Increased
-56.50 Taurine - P		

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

Decreased	Normal	Increased
-104.29 Histidine - P		

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

Decreased	Normal	Increased
-65.45 Isoleucine - P		-90.67 Glutamine - P
-54.17 Aspartic Acid - P		
-60.48 Glutamic Acid - P		

Comparison Progress Report

ANNA **Foundational Wellness Profile Date: 6/10/2003**

Female / Age: 51

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

Status % on:	10/16/2002		6/10/2003		+/- change
Histidine - P	**-44.29**	**L**	**-104.29**	**L**	**- 60.00**
Glutamine - P	**-32.00**	**L**	**-90.67**	**L**	**- 58.67**
Lysine - P	-7.33		**-54.67**	**L**	**- 47.33**
Threonine - P	**-26.00**	**L**	**-64.67**	**L**	**- 38.67**
Cystine - P	-10.00		**-42.50**	**L**	**- 32.50**
AA Competency-1	**-27.04**	**L**	**-58.15**	**L**	**- 31.11**
Tyrosine - P	**-38.57**	**L**	**-67.14**	**L**	**- 28.57**
3-Methylhistidine - P	**50.00**	**H**	10.00		+ 40.00
Collagen Related AA	**49.33**	**H**	15.33		+ 34.00
a-Aminoadipic Acid - P	**25.00**	**H**	0.00		+ 25.00

Comparison Report

ANNA — **Foundational Wellness Profile Date: 6/10/2003**

Female / Age: 51

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Green is improvement. Red is decline.

	+/-	Status % on:	10/16/2002		6/10/2003	
		1-Methylhistidine - P	**50.00**	**H**	**-45.00**	**L**
10.00 **50.00**	+	3-Methylhistidine - P	**50.00**	**H**	10.00	
-72.73 **-53.36**	-	AA Competency	**-53.36**	**L**	**-72.73**	**L**
-58.15 **-27.04**	-	AA Competency-1	**-27.04**	**L**	**-58.15**	**L**
-66.54 **-52.88**	-	AA Competency-2	**-52.88**	**L**	**-66.54**	**L**
0.00 **25.00**	+	a-Aminoadipic Acid - P	**25.00**	**H**	0.00	
-36.67 -23.33	-	a-Amino-N-Butyric Acid - P	-23.33		**-36.67**	**L**
-28.86 -18.00	-	Alanine - P	-18.00		**-28.86**	**L**
		Anserine - P	**-49.00**	**L**	**-49.00**	**L**
-33.64 -16.36	-	Arginine - P	-16.36		**-33.64**	**L**
-64.12 **-48.82**	-	Asparagine - P	**-48.82**	**L**	**-64.12**	**L**
-54.17 **-45.83**	-	Aspartic Acid - P	**-45.83**	**L**	**-54.17**	**L**
		b-Alanine - P	**-30.00**	**L**	**-30.00**	**L**
		b-Aminoisobutyric Acid - P	0.00		0.00	
		Carnosine - P	**-49.00**	**L**	**-49.00**	**L**
		Citrulline - P	4.55		-2.73	
15.33 **49.33**	+	Collagen Related AA	**49.33**	**H**	15.33	
		Cystathionine - P	**25.00**	**H**	**25.00**	**H**
-42.50 -10.00	-	Cystine - P	-10.00		**-42.50**	**L**
25.00 **37.50**	+	Ethanolamine - P	**37.50**	**H**	**25.00**	**H**
-30.00 **50.00**	+	GABA-P	**50.00**	**H**	**-30.00**	**L**
		Glutamic Acid - P	**-60.48**	**L**	**-60.48**	**L**
-90.67 **-32.00**	-	Glutamine - P	**-32.00**	**L**	**-90.67**	**L**
-62.44 **-37.56**	-	Glycine - P	**-37.56**	**L**	**-62.44**	**L**
8.23 **25.69**	+	Glycine/Serine Ratio	**25.69**	**H**	8.23	
-104.29 **-44.29**	-	Histidine - P	**-44.29**	**L**	**-104.29**	**L**
		Homocystine - P	18.00		18.00	
16.00 **30.00**	+	Hydroxylysine - P	**30.00**	**H**	16.00	
-33.33 -16.67	-	Hydroxyproline - P	-16.67		**-33.33**	**L**
-65.45 **-57.27**	-	Isoleucine - P	**-57.27**	**L**	**-65.45**	**L**
-64.55 **-49.09**	-	Leucine - P	**-49.09**	**L**	**-64.55**	**L**
-54.67 -7.33	-	Lysine - P	-7.33		**-54.67**	**L**
-66.00 **-50.00**	-	Methionine - P	**-50.00**	**L**	**-66.00**	**L**
-48.67 **-36.67**	-	Ornithine - P	**-36.67**	**L**	**-48.67**	**L**
-61.58 **-52.11**	-	Phenylalanine - P	**-52.11**	**L**	**-61.58**	**L**
-29.89 -17.11	+	Phenylalanine/Tyrosine	**-29.89**	**L**	-17.11	
-26.67 -13.33	-	Phosphoethanolamine - P	-13.33		**-26.67**	**L**
		Phosphoserine - P	8.33		8.33	
-58.15 **-39.26**	-	Proline - P	**-39.26**	**L**	**-58.15**	**L**
		Sarcosine - P	**-30.00**	**L**	**-30.00**	**L**
-55.83 **-45.00**	-	Serine - P	**-45.00**	**L**	**-55.83**	**L**
-56.50 **-45.50**	-	Taurine - P	**-45.50**	**L**	**-56.50**	**L**
-64.67 **-26.00**	-	Threonine - P	**-26.00**	**L**	**-64.67**	**L**
-66.67 **-53.33**	-	Tryptophan - P	**-53.33**	**L**	**-66.67**	**L**
-67.14 **-38.57**	-	Tyrosine - P	**-38.57**	**L**	**-67.14**	**L**
-69.20 **-52.80**	-	Valine - P	**-52.80**	**L**	**-69.20**	**L**
		Total Status Deviation	**35.09**		**43.76**	
		Total Status Skew	**-18.86**		**-38.29**	

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

Status % on:	10/16/2002		6/10/2003		+/- change
Basophils	-16.67		**-50.00**	**L**	**- 33.33**
Chloride	**50.00**	**H**	19.23		+ 30.77
HDL-Cholesterol	**39.09**	**H**	10.00		+ 29.09
Phosphorus	**30.00**	**H**	5.00		+ 25.00

Comparison Report

ANNA — **Foundational Wellness Profile Date: 6/10/2003**

Female / Age: 51

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	+/-	Status % on:	10/16/2002		6/10/2003	
		A/G Ratio	**-31.25**	**L**	**-26.92**	**L**
		Albumin	-10.00		-15.00	
		Alkaline Phosphatase	-8.40		2.80	
-19.17 → **36.67**	-	Anion Gap	-19.17		**36.67**	**H**
		B.U.N.	7.14		11.90	
		B.U.N./Creatinine Ratio	**30.26**	**H**	**36.84**	**H**
-50.00 ← **-26.50**	-	Basophil Count	**-26.50**	**L**	**-50.00**	**L**
-50.00 ← -16.67	-	Basophils	-16.67		**-50.00**	**L**
-22.73 ← -13.64	-	Bilirubin, Total	-13.64		-22.73	
-19.57 ← -6.52	-	Calcium	-6.52		-19.57	
-48.29 → -24.44	+	Calcium/Phosphorus Ratio	**-48.29**	**L**	-24.44	
19.23 ← **50.00**	+	Chloride	**50.00**	**H**	19.23	
48.00 ← **68.00**	+	Cholesterol	**68.00**	**H**	**48.00**	**H**
		CO2	8.33		-8.33	
		Creatinine	**-27.78**	**L**	**-27.78**	**L**
-24.00 ← -13.00	-	Eosinophil Count	-13.00		-24.00	
		Eosinophils	**33.33**	**H**	**33.33**	**H**
		Free T4 Index (T7)	-18.75		-23.75	
		GGT	-23.33		-23.33	
18.75 ← **31.25**	+	Globulin	**31.25**	**H**	18.75	
		Glucose	-4.55		-2.27	
10.00 ← **39.09**	+	HDL-Cholesterol	**39.09**	**H**	10.00	
-17.14 ← -5.00	-	Hematocrit	-5.00		-17.14	
-17.50 ← -7.50	-	Hemoglobin	-7.50		-17.50	
-31.67 ← 10.83	-	Iron, Total	10.83		**-31.67**	**L**
19.17 → **38.13**	-	LDH	19.17		**38.13**	**H**
		LDL	**85.29**	**H**	**85.29**	**H**
-47.50 ← **-37.10**	-	Lymphocyte Count	**-37.10**	**L**	**-47.50**	**L**
-26.67 ← -16.67	-	Lymphocytes	-16.67		**-26.67**	**L**
		MCH	**29.78**	**H**	**36.72**	**H**
-20.70 → -10.35	+	MCHC	-20.70		-10.35	
		MCV	**30.11**	**H**	**30.40**	**H**
-36.22 ← **-25.22**	-	Monocyte Count	**-25.22**	**L**	**-36.22**	**L**
		Monocytes	19.23		19.23	
-43.61 ← **-35.82**	-	Neutrophil Count	**-35.82**	**L**	**-43.61**	**L**
-14.00 → 2.00	+	Neutrophils	-14.00		2.00	
5.00 ← **30.00**	+	Phosphorus	**30.00**	**H**	5.00	
0.00 ← 16.67	+	Potassium	16.67		0.00	
-2.00 ← 10.00	+	Protein, Total	10.00		-2.00	
		Protein/Globulin Ratio	**-25.62**	**L**	-20.00	
-35.62 ← -24.37	-	R.B.C.	-24.37		**-35.62**	**L**
		sGOT	-7.50		7.50	
		sGPT	-12.50		7.50	
16.67 → **25.00**	-	Sodium	16.67		**25.00**	**H**
		Sodium/Potassium Ratio	-13.12		6.06	
		T-3 Uptake	1.33		2.67	
		Thyroxine (T4)	-11.25		-17.50	
		Triglycerides	-4.77		-2.35	
-34.47 ← -13.15	-	Ultra-Sensitive TSH	-13.15		**-34.47**	**L**
		Uric Acid	-8.62		-12.07	
-56.15 ← **-39.23**	-	W.B.C.	**-39.23**	**L**	**-56.15**	**L**
		Total Status Deviation	**22.09**		**23.76**	
		Total Status Skew	**-1.05**		**-4.82**	

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

Status % on:	10/16/2002		6/10/2003		+/- change
Benzoate	**-27.45**	**L**	**386.86**	**H**	**- 359.41**
Formiminoglutamic Acid	0.00		**231.25**	**H**	**- 231.25**
DHPP	12.50		**125.00**	**H**	**- 112.50**
p-Hydroxybenzoate	4.55		**104.55**	**H**	**- 100.00**
2-Methylhippurate	-9.46		**109.46**	**H**	**- 100.00**
Phenylacetate	**-28.57**	**L**	**92.86**	**H**	**- 64.29**
8-Hydroxy-2-deoxyguan	22.73		**86.36**	**H**	**- 63.64**
Tricarballylate	-3.85		**65.38**	**H**	**- 61.54**
a-Hydroxybutyrate	-2.73		**60.91**	**H**	**- 58.18**
Pyroglutamate	**26.88**	**H**	**80.00**	**H**	**- 53.12**
Quinolinate	18.57		**61.43**	**H**	**- 42.86**
Ethylmalonate	-9.17		**47.50**	**H**	**- 38.33**
cis-Aconitate	-16.18		**50.00**	**H**	**- 33.82**
Bacteria2	-14.29		**46.43**	**H**	**- 32.14**
CA Cycle Return	24.69		**54.94**	**H**	**- 30.25**
Fumarate	**30.00**	**H**	**60.00**	**H**	**- 30.00**
Homovanillate	**95.45**	**H**	-6.36		+ 89.09
CA Cycle Phase 1	**63.15**	**H**	9.32		+ 53.83
a-Ketoglutarate	**61.43**	**H**	8.21		+ 53.21
Kynurenate	**105.00**	**H**	**52.50**	**H**	**+ 52.50**
Succinate	**-50.00**	**L**	1.58		+ 48.42
CA Cycle Entry	**146.67**	**H**	**103.51**	**H**	**+ 43.16**
Isocitrate	**-56.67**	**L**	-21.67		+ 35.00
Citramalate	**36.67**	**H**	5.00		+ 31.67
Glucarate	**-43.96**	**L**	-17.79		+ 26.17
p-Hydroxyphenyllactate	**32.19**	**H**	-6.16		+ 26.03
CA Cycle Phase 3	**-36.45**	**L**	-11.07		+ 25.38
a-Ketoisovalerate	**-37.50**	**L**	-12.50		+ 25.00

Comparison Report

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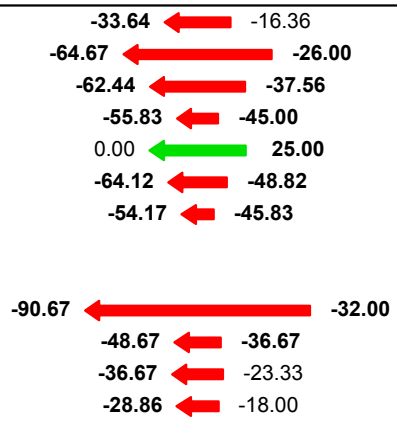
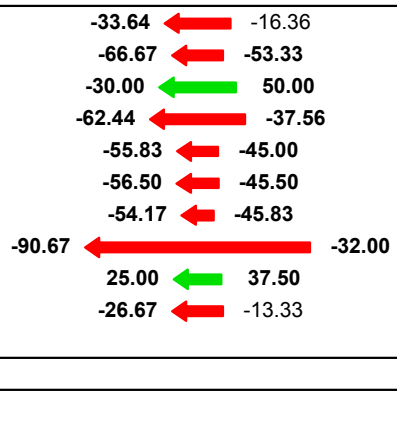
	+/-	Status % on:	10/16/2002		6/10/2003	
-9.46 → **109.46**	-	2-Methylhippurate	-9.46		**109.46**	H
-9.02 → **25.41**	-	5-Hydroxyindoleacetate	-9.02		**25.41**	H
22.73 → **86.36**	-	8-Hydroxy-2-deoxyguan	22.73		**86.36**	H
-11.90 ← -3.57	-	Adipate	-3.57		-11.90	
-2.73 → **60.91**	-	a-Hydroxybutyrate	-2.73		**60.91**	H
		a-Keto-b-methylvalerate	-21.43		-21.43	
8.21 ← **61.43**	+	a-Ketoglutarate	**61.43**	H	8.21	
		a-Ketoisocaproate	10.00		-10.00	
-37.50 → -12.50	+	a-Ketoisovalerate	**-37.50**	L	-12.50	
		Bacteria Markers	**-49.77**	L	**-45.54**	L
		Bacteria1	**-49.90**	L	**-48.01**	L
-14.29 → **46.43**	-	Bacteria2	-14.29		**46.43**	H
		Bacteria3	**-49.45**	L	**-48.45**	L
		Bacteria4	-24.96		**-27.67**	L
-27.45 → **386.86**	-	Benzoate	**-27.45**	L	**386.86**	H
-21.11 → 3.33	+	b-Hydroxybutyrate	-21.11		3.33	
-20.00 → 7.27	+	b-Hydroxyisovalerate	-20.00		7.27	
103.51 ← **146.67**	+	CA Cycle Entry	**146.67**	H	**103.51**	H
9.32 ← **63.15**	+	CA Cycle Phase 1	**63.15**	H	9.32	
		CA Cycle Phase 2	**-37.67**	L	**-37.92**	L
-36.45 → -11.07	+	CA Cycle Phase 3	**-36.45**	L	-11.07	
-48.49 → **-33.88**	+	CA Cycle Phase 4	**-48.49**	L	**-33.88**	L
-45.00 → **-28.55**	+	CA Cycle Phase 5	**-45.00**	L	**-28.55**	L
		CA Cycle Phase 6	16.67		-19.70	
24.69 → **54.94**	-	CA Cycle Return	24.69		**54.94**	H
-16.18 → **50.00**	-	cis-Aconitate	-16.18		**50.00**	H
5.00 ← **36.67**	+	Citramalate	**36.67**	H	5.00	
34.00 ← **54.16**	+	Citrate	**54.16**	H	**34.00**	H
12.50 → **125.00**	-	DHPP	12.50		**125.00**	H
		D-Lactate	-7.89		7.89	
-9.17 → **47.50**	-	Ethylmalonate	-9.17		**47.50**	H
-29.13 → -14.35	+	Fatty Acid Metabolism	**-29.13**	L	-14.35	
0.00 → **231.25**	-	Formiminoglutamic Acid	0.00		**231.25**	H
30.00 → **60.00**	-	Fumarate	**30.00**	H	**60.00**	H
-43.96 → -17.79	+	Glucarate	**-43.96**	L	-17.79	
35.71 ← **58.21**	+	Hippurate	**58.21**	H	**35.71**	H
-6.36 ← **95.45**	+	Homovanillate	**95.45**	H	-6.36	
-29.03 → 8.06	+	Hydroxymethylglutarate	**-29.03**	L	8.06	
16.28 ← **25.58**	+	Indican	**25.58**	H	16.28	
-56.67 → -21.67	+	Isocitrate	**-56.67**	L	-21.67	
52.50 ← **105.00**	+	Kynurenate	**105.00**	H	**52.50**	H
0.00 → 23.33	-	Lactate	0.00		23.33	
		Malate	7.14		-14.29	
		Methylmalonate	-8.33		14.58	
		Orotate	4.55		-4.55	
-18.67 ← -4.67	-	Oxidative Damage	-4.67		-18.67	
-28.57 → **92.86**	-	Phenylacetate	**-28.57**	L	**92.86**	H
		Phenylpropionate	**50.00**	H	**50.00**	H
4.55 → **104.55**	-	p-Hydroxybenzoate	4.55		**104.55**	H
		P-Hydroxyphenylacetate	-16.67		10.00	
-6.16 ← **32.19**	+	p-Hydroxyphenyllactate	**32.19**	H	-6.16	
26.88 → **80.00**	-	Pyroglutamate	**26.88**	H	**80.00**	H
75.00 → **85.71**	-	Pyruvate	**75.00**	H	**85.71**	H
		Pyruvate to Lactate	**-40.38**	L	**-39.56**	L
18.57 → **61.43**	-	Quinolinate	18.57		**61.43**	H
-20.37 → 5.56	+	Suberate	-20.37		5.56	
-50.00 → 1.58	+	Succinate	**-50.00**	L	1.58	

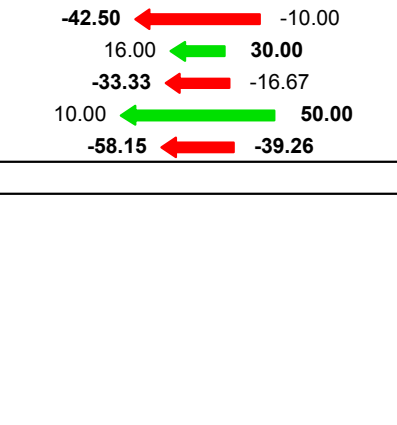
Ammonia/Energy	10/16/2002		6/10/2003		+/-
Arginine - P	-16.36		**-33.64**	**L**	-
Threonine - P	**-26.00**	**L**	**-64.67**	**L**	-
Glycine - P	**-37.56**	**L**	**-62.44**	**L**	-
Serine - P	**-45.00**	**L**	**-55.83**	**L**	-
a-Aminoadipic Acid - P	**25.00**	**H**	0.00		+
Asparagine - P	**-48.82**	**L**	**-64.12**	**L**	-
Aspartic Acid - P	**-45.83**	**L**	**-54.17**	**L**	-
Citrulline - P	4.55		-2.73		
Glutamic Acid - P	**-60.48**	**L**	**-60.48**	**L**	
Glutamine - P	**-32.00**	**L**	**-90.67**	**L**	-
Ornithine - P	**-36.67**	**L**	**-48.67**	**L**	-
a-Amino-N-Butyric Acid - P	-23.33		**-36.67**	**L**	-
Alanine - P	-18.00		**-28.86**	**L**	-
b-Alanine - P	**-30.00**	**L**	**-30.00**	**L**	
PSS / PSD	-27.89 / 32.11		-45.21 / 45.21		



CNS Metabolism	10/16/2002		6/10/2003		+/-
Arginine - P	-16.36		**-33.64**	**L**	-
Tryptophan - P	**-53.33**	**L**	**-66.67**	**L**	-
GABA-P	**50.00**	**H**	**-30.00**	**L**	+
Glycine - P	**-37.56**	**L**	**-62.44**	**L**	-
Serine - P	**-45.00**	**L**	**-55.83**	**L**	-
Taurine - P	**-45.50**	**L**	**-56.50**	**L**	-
Aspartic Acid - P	**-45.83**	**L**	**-54.17**	**L**	-
Glutamine - P	**-32.00**	**L**	**-90.67**	**L**	-
Ethanolamine - P	**37.50**	**H**	**25.00**	**H**	+
Phosphoethanolamine - P	-13.33		**-26.67**	**L**	-
Phosphoserine - P	8.33		8.33		
PSS / PSD	-17.55 / 34.98		-40.30 / 46.36		



Connective Tissue	10/16/2002		6/10/2003		+/-
Leucine - P	**-49.09**	**L**	**-64.55**	**L**	-
Methionine - P	**-50.00**	**L**	**-66.00**	**L**	-
Valine - P	**-52.80**	**L**	**-69.20**	**L**	-
Cystine - P	-10.00		**-42.50**	**L**	-
Hydroxylysine - P	**30.00**	**H**	16.00		+
Hydroxyproline - P	-16.67		**-33.33**	**L**	-
3-Methylhistidine - P	**50.00**	**H**	10.00		+
Proline - P	**-39.26**	**L**	**-58.15**	**L**	-
PSS / PSD	-17.23 / 37.23		-38.47 / 44.97		



Panel/Subset Comparison Report

ANNA — **Foundational Wellness Profile Date: 6/10/2003**

Female / Age: 51

Essential Amino Acid	10/16/2002		6/10/2003		+/-
Arginine - P	-16.36		**-33.64**	**L**	-
Histidine - P	**-44.29**	**L**	**-104.29**	**L**	-
Isoleucine - P	**-57.27**	**L**	**-65.45**	**L**	-
Leucine - P	**-49.09**	**L**	**-64.55**	**L**	-
Lysine - P	-7.33		**-54.67**	**L**	-
Methionine - P	**-50.00**	**L**	**-66.00**	**L**	-
Phenylalanine - P	**-52.11**	**L**	**-61.58**	**L**	-
Threonine - P	**-26.00**	**L**	**-64.67**	**L**	-
Tryptophan - P	**-53.33**	**L**	**-66.67**	**L**	-
Valine - P	**-52.80**	**L**	**-69.20**	**L**	-
PSS / PSD	-40.86 / 40.86		-65.07 / 65.07		

Fat Metabolism	10/16/2002		6/10/2003		+/-
Arginine - P	-16.36		**-33.64**	**L**	-
Isoleucine - P	**-57.27**	**L**	**-65.45**	**L**	-
Leucine - P	**-49.09**	**L**	**-64.55**	**L**	-
Valine - P	**-52.80**	**L**	**-69.20**	**L**	-
Taurine - P	**-45.50**	**L**	**-56.50**	**L**	-
Glutamine - P	**-32.00**	**L**	**-90.67**	**L**	-
Sarcosine - P	**-30.00**	**L**	**-30.00**	**L**	
PSS / PSD	-40.43 / 40.43		-58.57 / 58.57		

Gluconeogen	10/16/2002		6/10/2003		+/-
Threonine - P	**-26.00**	**L**	**-64.67**	**L**	-
Tryptophan - P	**-53.33**	**L**	**-66.67**	**L**	-
Glycine - P	**-37.56**	**L**	**-62.44**	**L**	-
Serine - P	**-45.00**	**L**	**-55.83**	**L**	-
Alanine - P	-18.00		**-28.86**	**L**	-
PSS / PSD	-35.98 / 35.98		-55.69 / 55.69		

Hepatic Metabolism	10/16/2002		6/10/2003		+/-
Methionine - P	**-50.00**	**L**	**-66.00**	**L**	-
Taurine - P	**-45.50**	**L**	**-56.50**	**L**	-
Glutamine - P	**-32.00**	**L**	**-90.67**	**L**	-
Cystine - P	-10.00		**-42.50**	**L**	-
Cystathionine - P	**25.00**	**H**	**25.00**	**H**	
Homocystine - P	18.00		18.00		
Alanine - P	-18.00		**-28.86**	**L**	-
PSS / PSD	-16.07 / 28.36		-34.50 / 46.79		

Immune Metabolites	10/16/2002		6/10/2003		+/-
Arginine - P	-16.36		**-33.64**	**L**	-
Threonine - P	**-26.00**	**L**	**-64.67**	**L**	-
Glutamine - P	**-32.00**	**L**	**-90.67**	**L**	-
Ornithine - P	**-36.67**	**L**	**-48.67**	**L**	-
PSS / PSD	-27.76 / 27.76		-59.41 / 59.41		

Panel/Subset Comparison Report

ANNA — **Foundational Wellness Profile Date: 6/10/2003**

Female / Age: 51

Muscle Metabolites	10/16/2002		6/10/2003		+/-	
Anserine - P	**-49.00**	**L**	**-49.00**	**L**		
Carnosine - P	**-49.00**	**L**	**-49.00**	**L**		
1-Methylhistidine - P	**50.00**	**H**	**-45.00**	**L**		
3-Methylhistidine - P	**50.00**	**H**	10.00		+	10.00 ← **50.00**
PSS / PSD	0.50 / 49.50		-33.25 / 38.25			

Neuroendocrine Met.	10/16/2002		6/10/2003		+/-	
GABA-P	**50.00**	**H**	**-30.00**	**L**	+	**-30.00** ← **50.00**
Glycine - P	**-37.56**	**L**	**-62.44**	**L**	-	**-62.44** ← **-37.56**
Serine - P	**-45.00**	**L**	**-55.83**	**L**	-	**-55.83** ← **-45.00**
Taurine - P	**-45.50**	**L**	**-56.50**	**L**	-	**-56.50** ← **-45.50**
Tyrosine - P	**-38.57**	**L**	**-67.14**	**L**	-	**-67.14** ← **-38.57**
PSS / PSD	-23.33 / 43.33		-54.38 / 54.38			

Adrenal Function	10/16/2002		6/10/2003		+/-	
Cholesterol	**68.00**	**H**	**48.00**	**H**	+	**48.00** ← **68.00**
Eosinophils	**33.33**	**H**	**33.33**	**H**		
Eosinophil Count	-13.00		-24.00		-	-24.00 ← -13.00
Potassium	16.67		0.00		+	0.00 ← 16.67
Sodium	16.67		**25.00**	**H**	-	16.67 → **25.00**
PSS / PSD	24.33 / 29.53		16.47 / 26.07			

Allergy	10/16/2002		6/10/2003		+/-	
Eosinophils	**33.33**	**H**	**33.33**	**H**		
Globulin	**31.25**	**H**	18.75		+	18.75 ← **31.25**
Lymphocytes	-16.67		**-26.67**	**L**	-	**-26.67** ← -16.67
Monocytes	19.23		19.23			
W.B.C.	**-39.23**	**L**	**-56.15**	**L**	-	**-56.15** ← **-39.23**
PSS / PSD	5.58 / 27.94		-2.30 / 30.83			

Anti Oxidant Status	10/16/2002		6/10/2003		+/-	
Anion Gap	-19.17		**36.67**	**H**	-	-19.17 → **36.67**
Bilirubin, Total	-13.64		-22.73		-	-22.73 ← -13.64
Chloride	**50.00**	**H**	19.23		+	19.23 ← **50.00**
Cholesterol	**68.00**	**H**	**48.00**	**H**	+	**48.00** ← **68.00**
Glucose	-4.55		-2.27			
Iron, Total	10.83		**-31.67**	**L**	-	**-31.67** ← 10.83
PSS / PSD	13.07 / 23.74		6.75 / 22.94			

Athletic Potential	10/16/2002		6/10/2003		+/-	
B.U.N./Creatinine Ratio	**30.26**	**H**	**36.84**	**H**		
Cholesterol	**68.00**	**H**	**48.00**	**H**	+	**48.00** ← **68.00**
CO2	8.33		-8.33			
Creatinine	**-27.78**	**L**	**-27.78**	**L**		
LDH	19.17		**38.13**	**H**	-	19.17 → **38.13**
Potassium	16.67		0.00		+	0.00 ← 16.67
Protein, Total	10.00		-2.00		+	-2.00 ← 10.00
Sodium	16.67		**25.00**	**H**	-	16.67 → **25.00**
HDL-Cholesterol	**39.09**	**H**	10.00		+	10.00 ← **39.09**
PSS / PSD	20.05 / 26.22		13.32 / 21.79			

Panel/Subset Comparison Report

ANNA — **Foundational Wellness Profile Date: 6/10/2003**

Female / Age: 51

Bone/Joint	10/16/2002		6/10/2003		+/-	
Albumin	-10.00		-15.00			
Alkaline Phosphatase	-8.40		2.80			
Calcium	-6.52		-19.57		-	-19.57 ← -6.52
Neutrophils	-14.00		2.00		+	-14.00 → 2.00
Phosphorus	**30.00**	**H**	5.00		+	5.00 ← **30.00**
Protein, Total	10.00		-2.00		+	-2.00 ← 10.00
Uric Acid	-8.62		-12.07			
PSS / PSD	-1.08 / 12.51		-5.55 / 8.35			

Cardiac Marker	10/16/2002		6/10/2003		+/-	
Cholesterol	**68.00**	**H**	**48.00**	**H**	+	**48.00** ← **68.00**
GGT	-23.33		-23.33			
Iron, Total	10.83		**-31.67**	**L**	-	**-31.67** ← 10.83
LDH	19.17		**38.13**	**H**	-	19.17 → **38.13**
sGOT	-7.50		7.50			
Triglycerides	-4.77		-2.35			
Uric Acid	-8.62		-12.07			
HDL-Cholesterol	**39.09**	**H**	10.00		+	10.00 ← **39.09**
LDL	**85.29**	**H**	**85.29**	**H**		
PSS / PSD	14.85 / 22.22		9.96 / 21.53			

Cellular Distortions	10/16/2002		6/10/2003		+/-	
Alkaline Phosphatase	-8.40		2.80			
Anion Gap	-19.17		**36.67**	**H**	-	-19.17 → **36.67**
GGT	-23.33		-23.33			
Iron, Total	10.83		**-31.67**	**L**	-	**-31.67** ← 10.83
LDH	19.17		**38.13**	**H**	-	19.17 → **38.13**
Neutrophils	-14.00		2.00		+	-14.00 → 2.00
W.B.C.	**-39.23**	**L**	**-56.15**	**L**	-	**-56.15** ← **-39.23**
PSS / PSD	-9.27 / 16.77		-3.95 / 23.84			

Differential	10/16/2002		6/10/2003		+/-	
Basophils	-16.67		**-50.00**	**L**	-	**-50.00** ← -16.67
Eosinophils	**33.33**	**H**	**33.33**	**H**		
Lymphocytes	-16.67		**-26.67**	**L**	-	**-26.67** ← -16.67
Monocytes	19.23		19.23			
Neutrophils	-14.00		2.00		+	-14.00 → 2.00
PSS / PSD	1.05 / 19.98		-4.42 / 26.25			

Differential Count	10/16/2002		6/10/2003		+/-	
Basophil Count	**-26.50**	**L**	**-50.00**	**L**	-	**-50.00** ← **-26.50**
Eosinophil Count	-13.00		-24.00		-	-24.00 ← -13.00
Lymphocyte Count	**-37.10**	**L**	**-47.50**	**L**	-	**-47.50** ← **-37.10**
Monocyte Count	**-25.22**	**L**	**-36.22**	**L**	-	**-36.22** ← **-25.22**
Neutrophil Count	**-35.82**	**L**	**-43.61**	**L**	-	**-43.61** ← **-35.82**
PSS / PSD	-27.53 / 27.53		-40.27 / 40.27			

Panel/Subset Comparison Report

ANNA — **Foundational Wellness Profile Date: 6/10/2003**

Female / Age: 51

Electrolyte	10/16/2002		6/10/2003		+/-	
Calcium	-6.52		-19.57		-	-19.57 ← -6.52
Chloride	**50.00**	**H**	19.23		+	19.23 ← **50.00**
CO2	8.33		-8.33			
Phosphorus	**30.00**	**H**	5.00		+	5.00 ← **30.00**
Potassium	16.67		0.00		+	0.00 ← 16.67
Sodium	16.67		**25.00**	**H**	-	16.67 → **25.00**
PSS / PSD	19.19 / 21.36		3.56 / 12.85			

Gastrointest. Function	10/16/2002		6/10/2003		+/-	
Anion Gap	-19.17		**36.67**	**H**	-	-19.17 → **36.67**
Chloride	**50.00**	**H**	19.23		+	19.23 ← **50.00**
Cholesterol	**68.00**	**H**	**48.00**	**H**	+	**48.00** ← **68.00**
CO2	8.33		-8.33			
Monocytes	19.23		19.23			
Potassium	16.67		0.00		+	0.00 ← 16.67
Sodium	16.67		**25.00**	**H**	-	16.67 → **25.00**
Triglycerides	-4.77		-2.35			
LDL	**85.29**	**H**	**85.29**	**H**		
PSS / PSD	26.69 / 32.01		24.75 / 27.12			

Hematology	10/16/2002		6/10/2003		+/-	
Hematocrit	-5.00		-17.14		-	-17.14 ← -5.00
Hemoglobin	-7.50		-17.50		-	-17.50 ← -7.50
MCH	**29.78**	**H**	**36.72**	**H**		
MCHC	-20.70		-10.35		+	-20.70 → -10.35
MCV	**30.11**	**H**	**30.40**	**H**		
R.B.C.	-24.37		**-35.62**	**L**	-	**-35.62** ← -24.37
W.B.C.	**-39.23**	**L**	**-56.15**	**L**	-	**-56.15** ← **-39.23**
PSS / PSD	-5.27 / 22.39		-9.95 / 29.13			

Inflammatory Process	10/16/2002		6/10/2003		+/-	
Eosinophils	**33.33**	**H**	**33.33**	**H**		
Globulin	**31.25**	**H**	18.75		+	18.75 ← **31.25**
LDH	19.17		**38.13**	**H**	-	19.17 → **38.13**
Neutrophils	-14.00		2.00		+	-14.00 → 2.00
Potassium	16.67		0.00		+	0.00 ← 16.67
sGOT	-7.50		7.50			
sGPT	-12.50		7.50			
Triglycerides	-4.77		-2.35			
Uric Acid	-8.62		-12.07			
LDL	**85.29**	**H**	**85.29**	**H**		
PSS / PSD	13.83 / 23.31		17.81 / 20.69			

Panel/Subset Comparison Report

ANNA — **Foundational Wellness Profile Date: 6/10/2003**

Female / Age: 51

Kidney Function	10/16/2002		6/10/2003		+/-	
Albumin	-10.00		-15.00			
B.U.N.	7.14		11.90			
B.U.N./Creatinine Ratio	**30.26**	**H**	**36.84**	**H**		
Chloride	**50.00**	**H**	19.23		+	19.23 ← **50.00**
CO2	8.33		-8.33			
Creatinine	**-27.78**	**L**	**-27.78**	**L**		
Glucose	-4.55		-2.27			
Potassium	16.67		0.00		+	0.00 ← 16.67
Protein, Total	10.00		-2.00		+	-2.00 ← 10.00
Sodium	16.67		**25.00**	**H**	-	16.67 → **25.00**
PSS / PSD	9.67 / 18.14		3.76 / 14.84			

Lipid	10/16/2002		6/10/2003		+/-	
Cholesterol	**68.00**	**H**	**48.00**	**H**	+	**48.00** ← **68.00**
Triglycerides	-4.77		-2.35			
HDL-Cholesterol	**39.09**	**H**	10.00		+	10.00 ← **39.09**
LDL	**85.29**	**H**	**85.29**	**H**		
PSS / PSD	31.27 / 32.86		23.49 / 24.27			

Liver Function	10/16/2002		6/10/2003		+/-	
Albumin	-10.00		-15.00			
Alkaline Phosphatase	-8.40		2.80			
Bilirubin, Total	-13.64		-22.73		-	-22.73 → -13.64
Cholesterol	**68.00**	**H**	**48.00**	**H**	+	**48.00** ← **68.00**
GGT	-23.33		-23.33			
Protein, Total	10.00		-2.00		+	-2.00 ← 10.00
sGOT	-7.50		7.50			
sGPT	-12.50		7.50			
PSS / PSD	0.33 / 19.17		0.34 / 16.11			

Nitrogen	10/16/2002		6/10/2003		+/-
B.U.N.	7.14		11.90		
B.U.N./Creatinine Ratio	**30.26**	**H**	**36.84**	**H**	
Creatinine	**-27.78**	**L**	**-27.78**	**L**	
Uric Acid	-8.62		-12.07		
PSS / PSD	0.25 / 18.45		2.23 / 22.15		

Protein	10/16/2002		6/10/2003		+/-	
A/G Ratio	**-31.25**	**L**	**-26.92**	**L**		
Albumin	-10.00		-15.00			
Globulin	**31.25**	**H**	18.75		+	18.75 ← **31.25**
Protein, Total	10.00		-2.00		+	-2.00 ← 10.00
Protein/Globulin Ratio	**-25.62**	**L**	-20.00			
PSS / PSD	-5.12 / 21.62		-9.03 / 16.53			

ANNA
Female / Age: 51

Foundational Wellness Profile Date: 6/10/2003

Pulmonary Function	10/16/2002		6/10/2003		+/-
Anion Gap	-19.17		**36.67**	H	-
Calcium	-6.52		-19.57		-
CO2	8.33		-8.33		
LDH	19.17		**38.13**	H	-
Potassium	16.67		0.00		+
sGOT	-7.50		7.50		
Sodium	16.67		**25.00**	H	-
PSS / PSD	3.95 / 13.43		11.34 / 19.31		

Ratios	10/16/2002		6/10/2003		+/-
A/G Ratio	**-31.25**	L	**-26.92**	L	
B.U.N./Creatinine Ratio	**30.26**	H	**36.84**	H	
Calcium/Phosphorus Ratio	**-48.29**	L	-24.44		+
Sodium/Potassium Ratio	-13.12		6.06		
Protein/Globulin Ratio	**-25.62**	L	-20.00		
PSS / PSD	-14.67 / 24.76		-4.74 / 19.05		

Thyroid	10/16/2002	6/10/2003	+/-
Thyroxine (T4)	-11.25	-17.50	
T-3 Uptake	1.33	2.67	
Free T4 Index (T7)	-18.75	-23.75	
Ultra-Sensitive TSH	-13.15	**-34.47** L	-
PSS / PSD	-10.45 / 11.12	-18.26 / 19.60	

Amino Acid Catabolism	10/16/2002		6/10/2003		+/-
a-Ketoisovalerate	**-37.50**	L	-12.50		+
a-Ketoisocaproate	10.00		-10.00		
a-Keto-b-methylvalerate	-21.43		-21.43		
PSS / PSD	-16.31 / 22.98		-14.64 / 14.64		

B-Complex Markers	10/16/2002		6/10/2003		+/-
b-Hydroxyisovalerate	-20.00		7.27		+
a-Ketoisovalerate	**-37.50**	L	-12.50		+
a-Ketoisocaproate	10.00		-10.00		
a-Keto-b-methylvalerate	-21.43		-21.43		
Methylmalonate	-8.33		14.58		
PSS / PSD	-15.45 / 19.45		-4.41 / 13.16		

CAC Cycle Ratios	10/16/2002		6/10/2003		+/-
CA Cycle Entry	**146.67**	H	**103.51**	H	+
CA Cycle Phase 1	**63.15**	H	9.32		+
CA Cycle Phase 2	**-37.67**	L	**-37.92**	L	
CA Cycle Phase 3	**-36.45**	L	-11.07		+
CA Cycle Phase 4	**-48.49**	L	**-33.88**	L	+
CA Cycle Phase 5	**-45.00**	L	**-28.55**	L	+
CA Cycle Phase 6	16.67		-19.70		
CA Cycle Return	24.69		**54.94**	H	-
PSS / PSD	10.45 / 52.35		4.58 / 37.36		

Panel/Subset Comparison Report

ANNA — **Foundational Wellness Profile Date: 6/10/2003**

Female / Age: 51

Carbohydrate Metabolism	10/16/2002		6/10/2003		+/-
Lactate	0.00		23.33		-
Pyruvate	**75.00**	H	**85.71**	H	-
a-Hydroxybutyrate	-2.73		**60.91**	H	-
b-Hydroxybutyrate	-21.11		3.33		+
PSS / PSD	12.79 / 24.71		43.32 / 43.32		

Citric Acid Cycle	10/16/2002		6/10/2003		+/-
Citrate	**54.16**	H	**34.00**	H	+
cis-Aconitate	-16.18		**50.00**	H	-
Isocitrate	**-56.67**	L	-21.67		+
a-Ketoglutarate	**61.43**	H	8.21		+
Succinate	**-50.00**	L	1.58		+
Fumarate	**30.00**	H	**60.00**	H	-
Malate	7.14		-14.29		
Hydroxymethylglutarate	**-29.03**	L	8.06		+
PSS / PSD	0.11 / 38.08		15.74 / 24.73		

Intestinal Dysbiosis	10/16/2002		6/10/2003		+/-
Hippurate	**58.21**	H	**35.71**	H	+
Benzoate	**-27.45**	L	**386.86**	H	-
p-Hydroxybenzoate	4.55		**104.55**	H	-
p-Hydroxyphenyllactate	**32.19**	H	-6.16		+
Phenylacetate	**-28.57**	L	**92.86**	H	-
Phenylpropionate	**50.00**	H	**50.00**	H	
Tricarballylate	-3.85		**65.38**	H	-
DHPP	12.50		**125.00**	H	-
Citramalate	**36.67**	H	5.00		+
Tartarate	-8.18		-24.55		-
Indican	**25.58**	H	16.28		+
PSS / PSD	11.67 / 22.13		65.46 / 70.18		

Lipid Metabolism	10/16/2002		6/10/2003		+/-
Adipate	-3.57		-11.90		-
Suberate	-20.37		5.56		+
Ethylmalonate	-9.17		**47.50**	H	-
PSS / PSD	-11.04 / 11.04		13.72 / 21.65		

Liver Detox Indicators	10/16/2002		6/10/2003		+/-
2-Methylhippurate	-9.46		**109.46**	H	-
Glucarate	**-43.96**	L	-17.79		+
P-Hydroxyphenylacetate	-16.67		10.00		
Orotate	4.55		-4.55		
Pyroglutamate	**26.88**	H	**80.00**	H	-
Sulfate	22.22		7.78		+
PSS / PSD	-2.74 / 20.62		30.82 / 38.26		

ANNA **Foundational Wellness Profile Date: 6/10/2003**

Female / Age: 51

Neurotransmitters	10/16/2002		6/10/2003		+/-
Vanillylmandelate	-22.00		**26.00**	**H**	
Homovanillate	**95.45**	**H**	-6.36		**+**
5-Hydroxyindoleacetate	-9.02		**25.41**	**H**	**-**
Kynurenate	**105.00**	**H**	**52.50**	**H**	**+**
Quinolinate	18.57		**61.43**	**H**	**-**
PSS / PSD	37.60 / 50.01		31.79 / 34.34