CARBON BASED

3545 Airway Drive, Suite 114
Reno, NV 89511

(775) 851-3337
(775) 851-3363 Fax
www.carbonbased.com

Frank

Date: 4/12/2006
(accession: 10212911360)

Next Test Due: 10/12/2006

CellMate™ Foundational Wellness and Cardiovascular Report

Patient

Printed on Monday, May 8, 2006 for:

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

Basic Status High/Low - Plasma Amino Acid on 4/12/2006

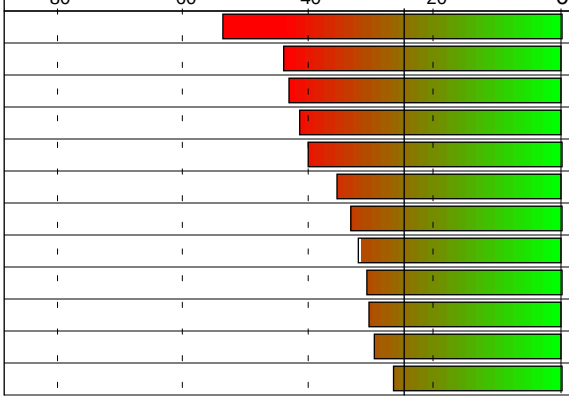
Frank **Foundational Wellness and Cardiovascular Date: 4/12/2006**

Male / Age: 62

Client ID:548664859 (9732)

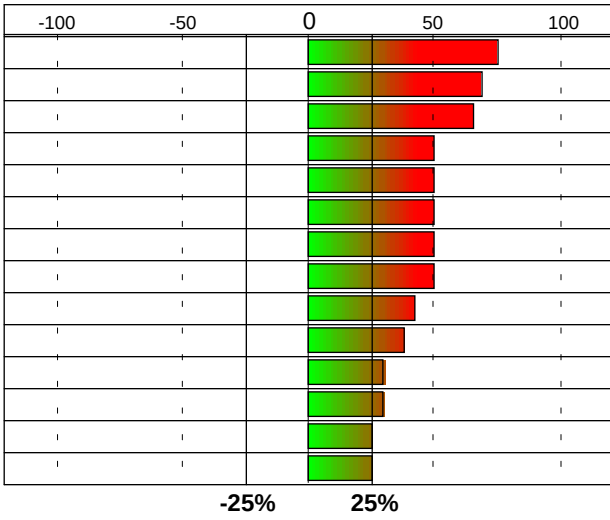
The % Status is the weighted deviation of the laboratory result.

Low Results



	% Status		Result	*Low*	*High*
Serine - P	-53.75	**L**	**85.50**	90.00	210.00
Taurine - P	-43.92	**L**	**62.16**	50.00	250.00
Glycine - P	-43.05	**L**	**240.64**	225.00	450.00
Phenylalanine/Tyrosine	-41.20	**L**	**0.61**	0.50	1.70
1-Methylhistidine - P	-40.00	**L**	**2.00**	0.00	20.00
Citrulline - P	-35.53	**L**	**22.96**	15.00	70.00
Aspartic Acid - P	-33.33	**L**	**10.00**	6.00	30.00
Arginine - P	-31.82	**L**	**70.00**	50.00	160.00
Asparagine - P	-30.59	**L**	**61.50**	45.00	130.00
Proline - P	-30.26	**L**	**183.30**	130.00	400.00
Glutamine - P	-29.64	**L**	**691.60**	600.00	1050.00
a-Amino-N-Butyric Acid - P	-26.67	**L**	**17.00**	10.00	40.00

High Results



	% Status		Result	*Low*	*High*
Cystathionine - P	75.00	**H**	**5.00**	0.00	4.00
Sarcosine - P	68.80	**H**	**5.94**	0.00	5.00
Collagen Related AA	65.53	**H**	**183.30**	10.00	160.00
3-Methylhistidine - P	50.00	**H**	**5.00**	0.00	5.00
Anserine - P	50.00	**H**	**1.00**	0.00	1.00
Carnosine - P	50.00	**H**	**1.00**	0.00	1.00
Homocystine - P	50.00	**H**	**1.00**	0.00	1.00
Hydroxylysine - P	50.00	**H**	**1.00**	0.00	1.00
Tyrosine - P	42.60	**H**	**114.82**	50.00	120.00
Glycine/Serine Ratio	37.63	**H**	**2.81**	1.50	3.00
a-Aminoadipic Acid - P	30.00	**H**	**3.20**	0.00	4.00
GABA - P	30.00	**H**	**4.00**	0.00	5.00
Ethanolamine - P	25.00	**H**	**6.00**	0.00	8.00
Phosphoserine - P	25.00	**H**	**9.00**	0.00	12.00

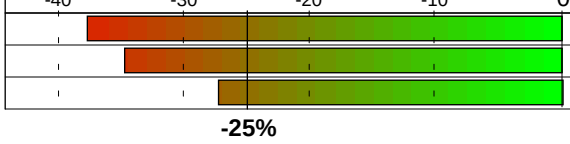
Basic Status High/Low - Blood Test on 4/12/2006

Frank **Foundational Wellness and Cardiovascular Date: 4/12/2006**

Male / Age: 62

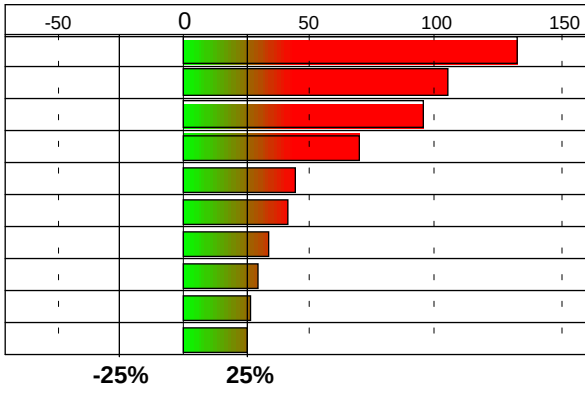
The % Status is the weighted deviation of the laboratory result.

Low Results



	% Status		Result	Low	High
Prostate Specific Antigen	-37.50	**L**	**0.50**	0.00	4.00
Sodium	-34.62	**L**	**137.00**	135.00	148.00
Lymphocyte Count	-27.30	**L**	**1708.00**	800.00	4800.00

High Results



	% Status		Result	Low	High
Triglycerides	131.88	**H**	**271.00**	0.00	149.00
Ultra-Sensitive TSH	104.86	**H**	**3.27**	1.10	2.50
LDL	95.59	**H**	**161.00**	62.00	130.00
Cholesterol	70.00	**H**	**260.00**	140.00	240.00
Glucose	44.12	**H**	**97.00**	65.00	99.00
Albumin	41.67	**H**	**4.70**	3.60	4.80
Hemoglobin	34.44	**H**	**16.30**	12.50	17.00
Creatinine	30.00	**H**	**1.30**	0.50	1.50
MCHC	26.34	**H**	**35.05**	32.00	36.00
Hematocrit	25.00	**H**	**46.50**	36.00	50.00

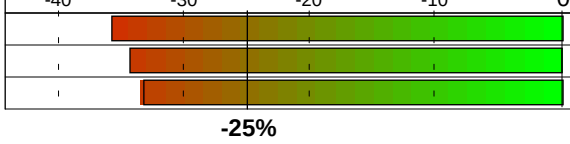
Basic Status High/Low - Cardiovascular Profile on 4/12/2006

Frank **Foundational Wellness and Cardiovascular Date: 4/12/2006**

Male / Age: 62

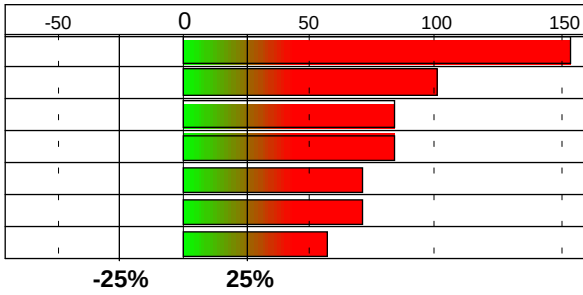
The % Status is the weighted deviation of the laboratory result.

Low Results



	% Status		Result	*Low*	*High*
Testosterone	-35.61	**L**	**326.00**	184.00	1171.00
Free Androgen Index	-34.27	**L**	**40.22**	30.00	95.00
Ferritin	-33.25	**L**	**89.80**	28.00	397.00

High Results



	% Status		Result	*Low*	*High*
Triglycerides	153.20	**H**	**289.00**	35.00	160.00
LDL Cholesterol Direct	100.77	**H**	**196.00**	0.00	130.00
Homocysteine	84.09	**H**	**14.30**	2.50	11.30
Total Cholesterol	83.50	**H**	**267.00**	0.00	200.00
LDL/HDL	71.21	**H**	**4.00**	0.00	3.30
Total/HDL	71.09	**H**	**5.45**	0.00	4.50
Fibrinogen	57.56	**H**	**417.00**	175.00	400.00

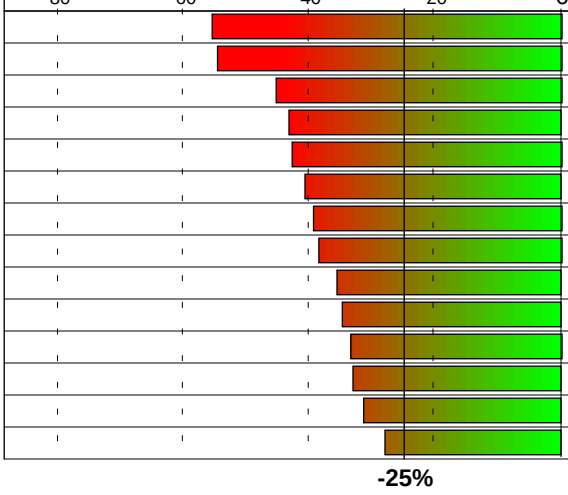
Basic Status High/Low - Urine Organic Acid on 4/12/2006

Frank **Foundational Wellness and Cardiovascular Date: 4/12/2006**

Male / Age: 62

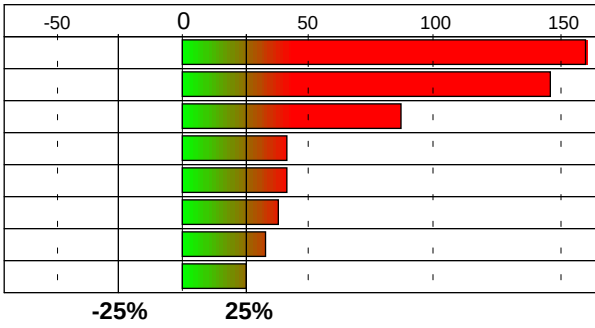
The % Status is the weighted deviation of the laboratory result.

Low Results



	% Status		Result	*Low*	*High*
Vanilmandelate	-55.23	**L**	**1.68**	1.90	6.10
cis-Aconitate	-54.34	**L**	**28.00**	30.00	76.00
Phenylpropionate	-45.24	**L**	**0.10**	0.00	2.10
b-Hydroxybutyrate	-42.95	**L**	**0.20**	0.00	2.80
Succinate	-42.77	**L**	**1.91**	1.10	12.30
D-Arabinitol	-40.63	**L**	**3.00**	0.00	32.00
a-Ketoisovalerate	-39.36	**L**	**0.10**	0.00	0.94
p-Hydroxyphenyllactate	-38.26	**L**	**0.23**	0.00	2.00
Indican	-35.44	**L**	**11.79**	0.00	81.00
a-Hydroxybutyrate	-34.43	**L**	**0.19**	0.00	1.20
CA Cycle Return	-33.21	**L**	**329.02**	125.00	1340.00
a-Keto-b-methylvalerate	-32.68	**L**	**0.28**	0.00	1.60
Homovanillate	-31.29	**L**	**3.34**	2.20	8.30
p-Hydroxybenzoate	-27.62	**L**	**0.54**	0.00	2.40

High Results



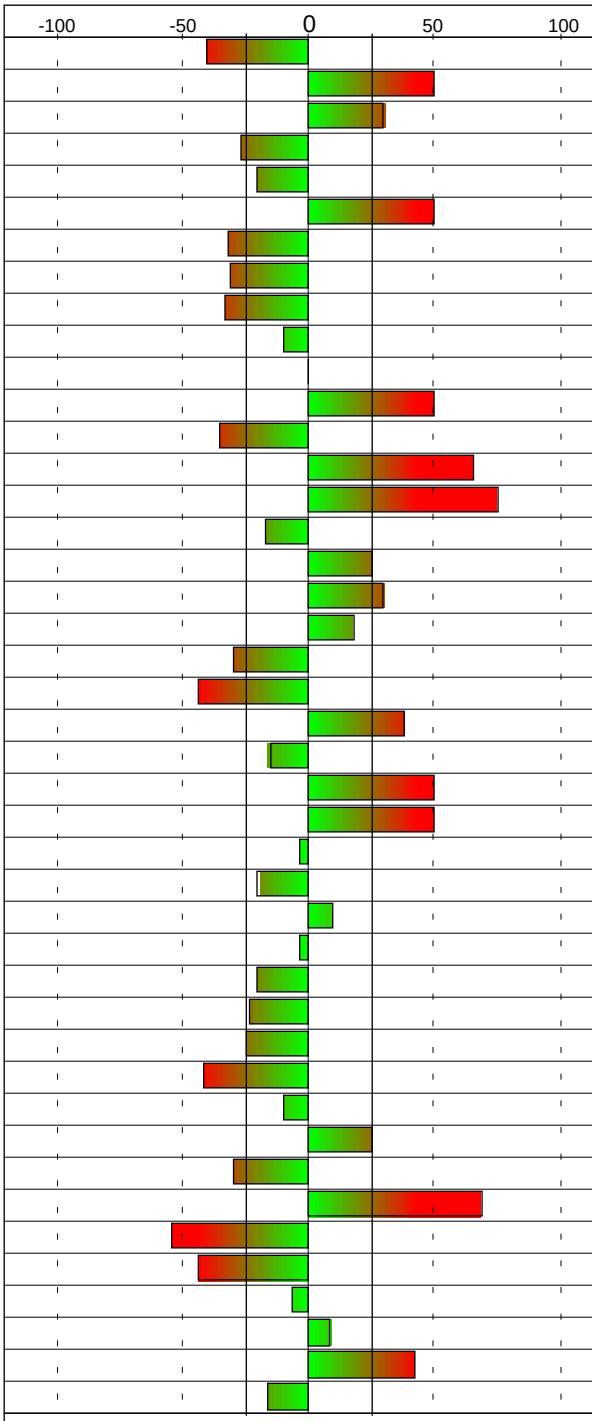
	% Status		Result	*Low*	*High*
Lactate	444.76	**H**	**47.41**	1.40	10.70
Formiminoglutamic Acid	145.98	**H**	**0.80**	0.00	0.41
Pyruvate	86.84	**H**	**5.61**	0.00	4.10
Hippurate	41.66	**H**	**391.39**	0.00	427.00
Phenylacetate	40.91	**H**	**0.10**	0.00	0.11
Benzoate	38.25	**H**	**2.21**	0.00	2.50
D-Lactate	32.42	**H**	**0.82**	0.00	1.00
5-Hydroxyindoleacetate	25.27	**H**	**4.24**	1.30	5.20

Basic Status Alphabetic - Plasma Amino Acid on 4/12/2006

Frank **Foundational Wellness and Cardiovascular Date: 4/12/2006**

Male / Age: 62

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



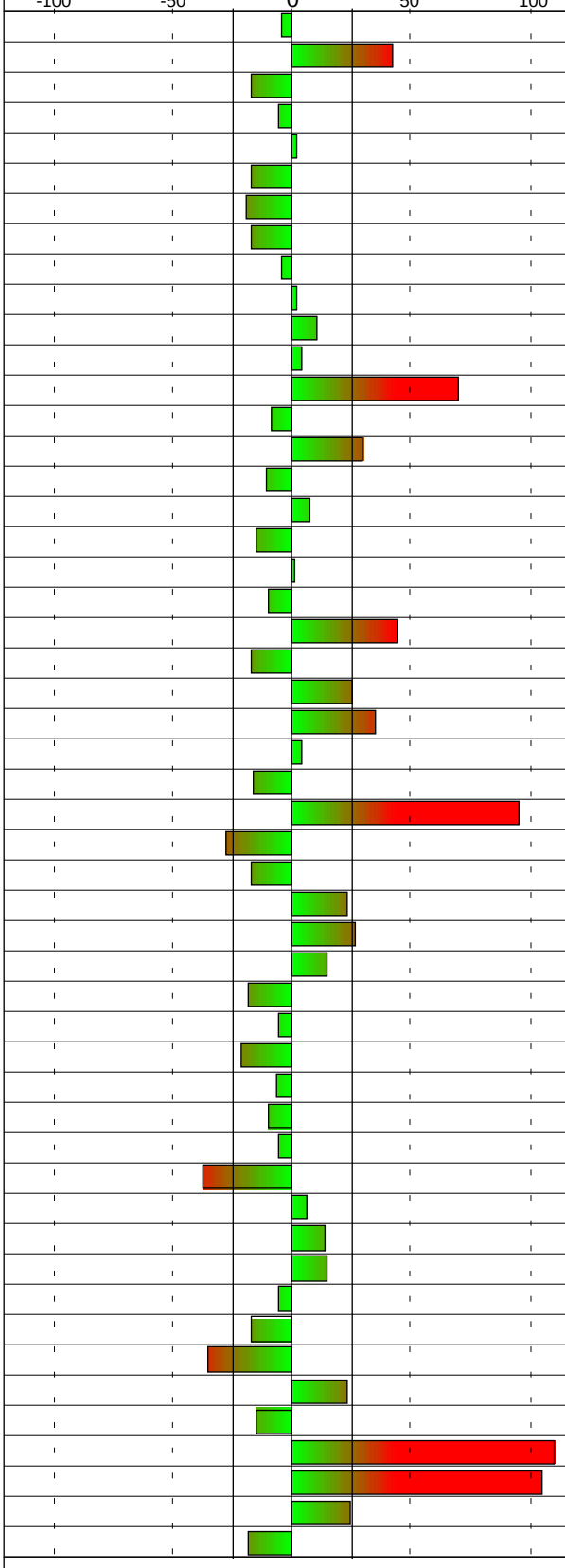
	% Status		Result	Low	High
1-Methylhistidine - P	**-40.00**	**L**	**2.00**	0.00	20.00
3-Methylhistidine - P	**50.00**	**H**	**5.00**	0.00	5.00
a-Aminoadipic Acid - P	**30.00**	**H**	**3.20**	0.00	4.00
a-Amino-N-Butyric Acid - P	**-26.67**	**L**	**17.00**	10.00	40.00
Alanine - P	-20.00		355.00	250.00	600.00
Anserine - P	**50.00**	**H**	**1.00**	0.00	1.00
Arginine - P	**-31.82**	**L**	**70.00**	50.00	160.00
Asparagine - P	**-30.59**	**L**	**61.50**	45.00	130.00
Aspartic Acid - P	**-33.33**	**L**	**10.00**	6.00	30.00
b-Alanine - P	-10.00		2.00	0.00	5.00
b-Aminoisobutyric Acid - P	0.00		1.00	0.00	2.00
Carnosine - P	**50.00**	**H**	**1.00**	0.00	1.00
Citrulline - P	**-35.53**	**L**	**22.96**	15.00	70.00
Collagen Related AA	**65.53**	**H**	**183.30**	10.00	160.00
Cystathionine - P	**75.00**	**H**	**5.00**	0.00	4.00
Cystine - P	-17.50		36.00	10.00	90.00
Ethanolamine - P	**25.00**	**H**	**6.00**	0.00	8.00
GABA - P	**30.00**	**H**	**4.00**	0.00	5.00
Glutamic Acid - P	17.62		116.00	45.00	150.00
Glutamine - P	**-29.64**	**L**	**691.60**	600.00	1050.00
Glycine - P	**-43.05**	**L**	**240.64**	225.00	450.00
Glycine/Serine Ratio	**37.63**	**H**	**2.81**	1.50	3.00
Histidine - P	-15.49		94.16	70.00	140.00
Homocystine - P	**50.00**	**H**	**1.00**	0.00	1.00
Hydroxylysine - P	**50.00**	**H**	**1.00**	0.00	1.00
Hydroxyproline - P	-3.33		14.00	0.00	30.00
Isoleucine - P	-19.73		83.30	50.00	160.00
Leucine - P	9.32		155.25	90.00	200.00
Lysine - P	-3.57		219.65	150.00	300.00
Methionine - P	-20.00		32.50	25.00	50.00
Ornithine - P	-23.27		90.09	50.00	200.00
Phenylalanine - P	-24.17		69.54	45.00	140.00
Phenylalanine/Tyrosine	**-41.20**	**L**	**0.61**	0.50	1.70
Phosphoethanolamine - P	-10.00		12.00	0.00	30.00
Phosphoserine - P	**25.00**	**H**	**9.00**	0.00	12.00
Proline - P	**-30.26**	**L**	**183.30**	130.00	400.00
Sarcosine - P	**68.80**	**H**	**5.94**	0.00	5.00
Serine - P	**-53.75**	**L**	**85.50**	90.00	210.00
Taurine - P	**-43.92**	**L**	**62.16**	50.00	250.00
Threonine - P	-6.72		164.92	100.00	250.00
Tryptophan - P	8.83		52.65	35.00	65.00
Tyrosine - P	**42.60**	**H**	**114.82**	50.00	120.00
Valine - P	-16.00		255.00	170.00	420.00
Total Status Deviation	**29.70**				
Total Status Skew	**0.10**				

Basic Status Alphabetic - Blood Test on 4/12/2006

Frank **Foundational Wellness and Cardiovascular Date: 4/12/2006**

Male / Age: 62

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



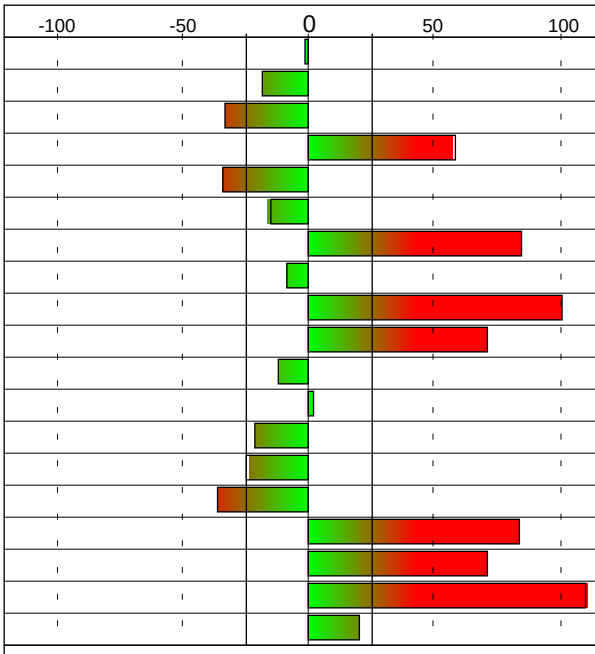
	% Status		Result	Low	High
A/G Ratio	-4.23		1.74	1.10	2.50
Albumin	**41.67**	**H**	**4.70**	3.60	4.80
Alkaline Phosphatase	-17.20		66.00	25.00	150.00
Anion Gap	-5.00		13.40	8.00	20.00
B.U.N.	2.38		16.00	5.00	26.00
B.U.N./Creatinine Ratio	-16.80		12.31	6.00	25.00
Basophil Count	-19.50		61.00	0.00	200.00
Basophils	-16.67		1.00	0.00	3.00
Bilirubin, Total	-4.55		0.60	0.10	1.20
Calcium	2.38		9.60	8.50	10.60
Calcium/Phosphorus Ratio	10.91		2.91	2.30	3.30
Chloride	3.85		103.00	96.00	109.00
Cholesterol	**70.00**	**H**	**260.00**	140.00	240.00
CO2	-8.33		25.00	20.00	32.00
Creatinine	**30.00**	**H**	**1.30**	0.50	1.50
Eosinophil Count	-11.20		244.00	50.00	550.00
Eosinophils	7.14		4.00	0.00	7.00
Free T4 Index (T7)	-14.86		2.50	1.20	4.90
GGT	0.77		33.00	0.00	65.00
Globulin	-10.00		2.70	1.50	4.50
Glucose	**44.12**	**H**	**97.00**	65.00	99.00
HDL-Cholesterol	-17.44		45.00	31.00	74.00
Hematocrit	**25.00**	**H**	**46.50**	36.00	50.00
Hemoglobin	**34.44**	**H**	**16.30**	12.50	17.00
Iron, Total	3.91		102.00	40.00	155.00
LDH	-16.00		151.00	100.00	250.00
LDL	**95.59**	**H**	**161.00**	62.00	130.00
Lymphocyte Count	**-27.30**	**L**	**1708.00**	800.00	4800.00
Lymphocytes	-16.67		28.00	18.00	48.00
MCH	23.57		32.15	27.00	34.00
MCHC	**26.34**	**H**	**35.05**	32.00	36.00
MCV	15.09		91.72	80.00	98.00
Monocyte Count	-18.00		488.00	200.00	1100.00
Monocytes	-5.56		8.00	4.00	13.00
Neutrophil Count	-20.98		3599.00	1800.00	8000.00
Neutrophils	-6.00		59.00	48.00	73.00
Phosphorus	-10.00		3.30	2.50	4.50
Potassium	-5.00		4.40	3.50	5.50
Prostate Specific Antigen	**-37.50**	**L**	**0.50**	0.00	4.00
Protein, Total	6.00		7.40	6.00	8.50
Protein/Globulin Ratio	14.07		2.74	2.10	3.10
R.B.C.	14.67		5.07	4.10	5.60
sGOT	-5.00		18.00	0.00	40.00
sGPT	-17.27		18.00	0.00	55.00
Sodium	**-34.62**	**L**	**137.00**	135.00	148.00
T-3 Uptake	23.33		35.00	24.00	39.00
Thyroxine (T4)	-15.33		7.10	4.50	12.00
Triglycerides	**131.88**	**H**	**271.00**	0.00	149.00
Ultra-Sensitive TSH	**104.86**	**H**	**3.27**	1.10	2.50
Uric Acid	24.14		6.70	2.40	8.20
W.B.C.	-17.69		6.10	4.00	10.50
Total Status Deviation	**22.35**				
Total Status Skew	**6.73**				

Basic Status Alphabetic - Cardiovascular Profile on 4/12/2006

Frank **Foundational Wellness and Cardiovascular Date: 4/12/2006**

Male / Age: 62

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



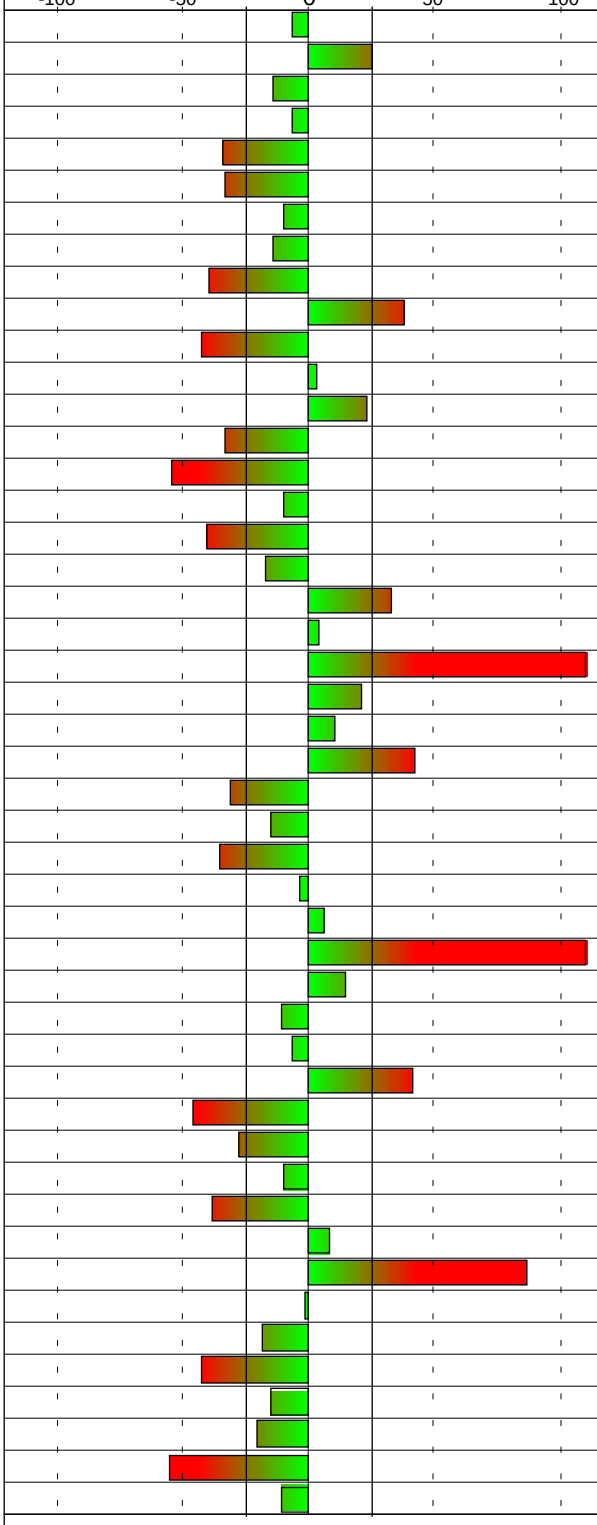
	% Status		Result	*Low*	*High*
Coenzyme Q10	-1.58		1.32	0.40	2.30
C-Reactive Protein	-17.67		0.97	0.00	3.00
Ferritin	**-33.25**	**L**	**89.80**	28.00	397.00
Fibrinogen	**57.56**	**H**	**417.00**	175.00	400.00
Free Androgen Index	**-34.27**	**L**	**40.22**	30.00	95.00
HDL Cholesterol	-15.45		49.00	30.00	85.00
Homocysteine	**84.09**	**H**	**14.30**	2.50	11.30
Insulin	-9.00		6.10	2.00	12.00
LDL Cholesterol Direct	**100.77**	**H**	**196.00**	0.00	130.00
LDL/HDL	**71.21**	**H**	**4.00**	0.00	3.30
Lipid Peroxides	-11.50		0.77	0.00	2.00
Lipoprotein (a)	1.89		19.20	0.00	37.00
RBC Magnesium	-20.97		51.61	40.00	80.00
Sex Hormone BG	-23.97		28.10	13.00	71.00
Testosterone	**-35.61**	**L**	**326.00**	184.00	1171.00
Total Cholesterol	**83.50**	**H**	**267.00**	0.00	200.00
Total/HDL	**71.09**	**H**	**5.45**	0.00	4.50
Triglycerides	**153.20**	**H**	**289.00**	35.00	160.00
Vitamin E	20.33		23.91	7.10	31.00
Total Status Deviation	**44.57**				
Total Status Skew	**23.18**				

Basic Status Alphabetic - Urine Organic Acid on 4/12/2006

Frank **Foundational Wellness and Cardiovascular Date: 4/12/2006**

Male / Age: 62

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



	% Status		Result	Low	High
2-Methylhippurate	-6.52		0.10	0.00	0.23
5-Hydroxyindoleacetate	**25.27**	**H**	**4.24**	1.30	5.20
8-Hydroxy-2-deoxyguan	-13.99		2.30	0.00	6.40
Adipate	-6.62		0.78	0.00	1.80
a-Hydroxybutyrate	**-34.43**	**L**	**0.19**	0.00	1.20
a-Keto-b-methylvalerate	**-32.68**	**L**	**0.28**	0.00	1.60
a-Ketoglutarate	-9.33		12.85	2.60	27.80
a-Ketoisocaproate	-13.77		0.14	0.00	0.39
a-Ketoisovalerate	**-39.36**	**L**	**0.10**	0.00	0.94
Benzoate	**38.25**	**H**	**2.21**	0.00	2.50
b-Hydroxybutyrate	**-42.95**	**L**	**0.20**	0.00	2.80
b-Hydroxyisovalerate	3.09		4.78	0.00	9.00
CA Cycle Entry	22.68		87.22	0.00	120.00
CA Cycle Return	**-33.21**	**L**	**329.02**	125.00	1340.00
cis-Aconitate	**-54.34**	**L**	**28.00**	30.00	76.00
Citrate	-9.34		489.33	175.00	948.00
D-Arabinitol	**-40.63**	**L**	**3.00**	0.00	32.00
DHPP	-16.78		0.13	0.00	0.40
D-Lactate	**32.42**	**H**	**0.82**	0.00	1.00
Ethylmalonate	4.17		2.98	0.00	5.50
Formiminoglutamic Acid	**145.98**	**H**	**0.80**	0.00	0.41
Fumarate	20.64		0.50	0.00	0.71
Glucarate	10.50		4.24	0.00	7.00
Hippurate	**41.66**	**H**	**391.39**	0.00	427.00
Homovanillate	**-31.29**	**L**	**3.34**	2.20	8.30
Hydroxymethylglutarate	-14.90		2.39	0.00	6.80
Indican	**-35.44**	**L**	**11.79**	0.00	81.00
Isocitrate	-3.35		62.12	36.00	92.00
Kynurenate	6.53		0.85	0.00	1.50
Lactate	**444.76**	**H**	**47.41**	1.40	10.70
Malate	14.66		1.49	0.00	2.30
Methylmalonate	-11.16		0.89	0.00	2.30
Orotate	-6.30		0.44	0.00	1.00
Phenylacetate	**40.91**	**H**	**0.10**	0.00	0.11
Phenylpropionate	**-45.24**	**L**	**0.10**	0.00	2.10
p-Hydroxybenzoate	**-27.62**	**L**	**0.54**	0.00	2.40
P-Hydroxyphenylacetate	-9.27		6.11	0.00	15.00
p-Hydroxyphenyllactate	**-38.26**	**L**	**0.23**	0.00	2.00
Pyroglutamate	8.76		17.63	0.00	30.00
Pyruvate	**86.84**	**H**	**5.61**	0.00	4.10
Quinolinate	-0.82		5.02	0.00	10.20
Suberate	-18.54		1.07	0.00	3.40
Succinate	**-42.77**	**L**	**1.91**	1.10	12.30
Sulfate	-15.36		243.59	166.00	390.00
Tricarballylate	-20.71		0.47	0.00	1.60
Vanilmandelate	**-55.23**	**L**	**1.68**	1.90	6.10
Xanthurenate	-10.99		0.27	0.00	0.70
Total Status Deviation	**40.57**				
Total Status Skew	**4.55**				

Nutritional Support

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

- ☐ **1-5-HTP**
  3x daily 100 mg
- ☐ **1-Antioxidant Complex**
  See Nutrition Detail
- ☐ **1-BCAA's**
  2x daily 500 mg
- ☐ **1-Carbohydrate Metabolism Profile**
  See Nutrition Detail
- ☐ **1-Carbohydrate Metabolism Profile**
  See Nutrition Detail
- ☐ **1-Digestive Enzymes**
  With meals
- ☐ **1-Folic Acid**
  2x daily 800 mcg
- ☐ **1-Homocysteine Lowering Protocol**
  See Nutrition Detail
- ☐ **1-Increase Fluid Intake**
  6-8 glasses daily
- ☐ **1-Oral Electrolyte - Standard Formula**
  2x daily
- ☐ **1-Pyridoxal-5-Phosphate**
  2x daily 20 mg
- ☐ **1-Pyridoxine (B6)**
  1x daily 100 mg
- ☐ **1-Taurine**
  2x daily 500 mg
- ☐ **1-Tyrosine**
  2x daily 500 mg
- ☐ **1-Tyrosine**
  2x daily 500 mg
- ☐ **1-Zinc Sulfate or Citrate**
  2x daily 25 mg
- ☐ **2-Arginine**
  2x daily 500 mg (Contraindicated for Herpes sufferers)
- ☐ **2-Betaine HCL**
  2 tablets at mealtime
- ☐ **2-Copper, Iron & Iodine**
  1x daily see detail
- ☐ **2-Magnesium, B6 & Manganese**
  2x daily see details
- ☐ **2-Zinc and Pyridoxine (B6)**
  1x daily see details
- ☐ **2-Zinc Citrate**
  2x daily 50 mg
- ☐ **H - Billberry**
  1 - 3 times daily
- ☐ **H - Garlic**
  1 - 3 times daily
- ☐ **H - Ginseng (Panax)**
  1 - 3 times daily

Nutritional Supplements to AVOID

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

Acetic Acid	Creatine	MCT Oil

Food Recommendations

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

Apricots, Dried	Artichoke	Banana	Beef
Black Pepper	Blueberries	Brown Rice	Cantaloupe
Cherries	Cornish Game Hens	Cucumber	Eggplant
Grapefruit	Green Beans	Guava	Halibut
Kale	Loganberries	Macadamia Nuts	Millet
Mozarella Cheese	Mushrooms	Onions	Oysters
Potatoes	Prunes	Pumpkin	Red Peppers
Shad	Sweet Potato	Swiss Chard	Yams

Foods to AVOID

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

Bacon	Cholesterol Rich Foods	Chuck Roast	Coconut Cream
Coconut Milk	Dairy Cream	Egg Yolk	Green Tea
Hydrogenated Fats	Liver Pate	Margarine	Sweetbreads

Out-Of-Balance Panel Values

The following panels have a PSD of greater than 25% indicating need for further review. PSD is the Panel Status Deviation, or the average imbalance of that subset of results. The PSS is the Panel Status Skew, or the direction, negative (deficiency) or positive (excess), of that subset of results.

Panel Name	PSD	PSS
Carbohydrate Metabolism	152.25%	113.56%
Lipid	78.73%	70.01%
Lipoprotein Ratios	71.15%	71.15%
Lipoprotein Factors	70.96%	64.78%
CAC Cycle Ratios	54.11%	23.64%
Muscle Metabolites	47.50%	27.50%
Neuroendocrine Met.	42.66%	-13.62%
Cardiac Marker	40.53%	31.98%
Gastrointest. Function	39.98%	26.98%
Thyroid	39.60%	24.50%
Hepatic Metabolism	36.58%	-0.87%
Chronic Inflammatory Markers	36.16%	2.21%
Intestinal Dysbiosis	33.66%	-11.04%
Inflammatory Process	31.80%	19.95%
Fat Metabolism	31.32%	-9.00%
CNS Metabolism	30.40%	-14.24%
Oxidant Stress Factors	29.38%	22.84%
Amino Acid Catabolism	28.60%	-28.60%
Ammonia/Energy	28.00%	-21.20%
Gluconeogen	26.47%	-22.94%
Adrenal Function	25.59%	5.27%

Lab Reported out-of-range Values

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

Lactate (444.76%)

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

Triglycerides (153.20%)

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

Drugs which may have an adverse affect:
Tamoxifen

Nutrients which may have an adverse affect:
MCT Oil

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

CA Cycle Phase 6 (147.70%)

The last phase of the citric acid cycle, this stage marks the conversion of Fumarate into Malate. When the ratio is low, this may signify that the body is not refilling its losses along the entire cycle. Supplementing with a broad spectrum amino acid along with niacin may help restore balance.

Formiminoglutamic Acid (145.98%)

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.

Foods which may have an adverse affect:
Green Tea

Triglycerides (131.88%)

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

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

Nutrients which may have an adverse affect:
MCT Oil

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

CA Cycle Phase 1 (124.74%)

This is the first phase of the citric acid cycle moving from Citrate to cis-Aconitate. A high reading may indicate a disruption in the efficiency of energy production. It can also be due to a problem clearing ammonia due to an arginase enzyme deficiency.

Oxidative Damage (119.31%)

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

Ultra-Sensitive TSH (104.86%)

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

Drugs which may have an adverse affect:
Rifampin, Valproic Acid

LDL Cholesterol Direct (100.77%)

Low Density Lipoprotein, considered the bad cholesterol, is considered the most atherogenic of the lipoproteins. LDL is though to be taken up by macrophages which form the foam cells associated with early atherogenesis. High readings increase the risk of CVD.

Drugs which may have an adverse affect:
Furosemide

LDL (95.59%)

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

Foods which may have an adverse affect:
Coconut Milk

Pyruvate (86.84%)

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

Homocysteine (84.09%)

Elevations of this amino acid is a known risk factor for coronary heart disease. Adequate levels of vitamins B6, B12, folic acid as well as betaine and magnesium are necessary to prevent accumulation of homocysteine. Smoking is also a contributor high levels.

Drugs which may have an adverse affect:
Carbamazepine, Methotrexate, Phenytoin

Total Cholesterol (83.50%)

Cholesterol is an essential fat required to form steroid hormones, is a component of cell membranes and is important in proper brain function. High levels of cholesterol are associated with an increased risk of coronary heart disease.

Drugs which may have an adverse affect:
Carbamazepine, Corticosteroids, Cortisone, Ibuprofen, Imipramine, Prednisone

Cystathionine - P (75.00%)

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

LDL/HDL (71.21%)

The higher the the ratio the higher the risk of cardiovascular disease according to the Framingham Heart Study.

Total/HDL (71.09%)

A high reading of this ratio has been reported to lead to an increased risk of coronary heart disease.

Cholesterol (70.00%)

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

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

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

Sarcosine - P (68.80%)

Elevated sarcosine may be indicative of a functional deficiency of riboflavin (B2) this in turn may impair vitamin B6 metabolism and the conversion of tryptophan to niacin.

Collagen Related AA (65.53%)

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

Fibrinogen (57.56%)

Fibrinogen is a plasma protein that is converted into fibrin during blood clot formation. Elevations are associated with Syndrome X especially in the presence of elevations on Insulin, triglycerides and total cholesterol.

Drugs which may have an adverse affect:
Aspirin, Gemfibrozil

Vanilmandelate (-55.23%)

Low levels of this organic acid may be related to low CNS levels of epinephrine and norepinephrine. Clinical signs include depression, sleep disturbances, and the inability to handle stress and fatigue.

Drugs which may have an adverse affect:
Imipramine, MAO Inhibitors, Methyldopa, Reserpine

cis-Aconitate (-54.34%)

No known health issues are related to low levels of cis-Aconitate

Serine - P (-53.75%)
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.

3-Methylhistidine - P (50.00%)
May be indicative of the need for additional antioxidants.

Drugs which may have an adverse affect:
Cortisol

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

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

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

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

Drugs which may have an adverse affect:
Methotrexate

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

Additional Tests

The following additional lab tests may help in diagnosis.

Consider ordering TRH stimulation test if clinically indicated
Rationale: % Status of Ultra-Sensitive TSH is > 50%

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

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

Nutritional and herbal information contained in this report is based upon research related to imbalances in your chemistry. The recommendations are based upon the information provided, without interpretation. This must be done with the help of a qualified health care professional.

1-5-HTP 3x daily 100 mg

Rationale

Decreased	Normal	Increased
		5-Hydroxyindoleacetate

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

1-Antioxidant Complex See Nutrition Detail

Decreased	Normal	Increased
		Oxidative Damage

ANTIOXIDANT PROTOCOL
When certain oxidative test markers appear, the following protocol can be followed: a Broad Spectrum Antioxidant which should include CoEnzyme Q10 (2 times daily, Vitamins A and E as well as Selenium (2 times daily) and Vitamin C (1000 mg 2 times daily).
Vitamin E should only be consumed with the advice of a physician if currently taking Coumadin or other blood thinning medications.
COENZYME Q10
An important antioxidant and esssential component of mitochondria, CoQ10 can be depleted if on cholesterol lowering drugs.
VITAMIN A/MIXED-CAROTENES
Vitamin A is involved in the growth and repair of tissue and helps maintain healthy skin. It is essential in the maintenance of eyesight, building of bones, teeth and blood. It also enhances production of RNA.
VITAMIN E
Vitamin E is a major antioxidant, enhances lymphocyte production, maintains cellular integrity, and aids in the biosynthesis of heme proteins
SELENIUM (Se)
Cofactor in glutathione peroxidase, in detoxification of peroxides, free radicals and thyroid hormone deionases.
VITAMIN C
Water-soluble vitamin essential for the synthesis and maintenance of collagen as well as body tissue cells, cartilage, bones, teeth, skin and tendons. Helps protect the immune system. Also improves iron and calcium absorption as well as trace mineral utilization.

1-BCAA's 2x daily 500 mg

Decreased	Normal	Increased
Succinate		

BRANCHED CHAIN AMINO ACIDS
Depressed succinate levels is suggestive of a deficiency of branched chain amino acids.
An addition of 500 mg of a combination of Leucine, Isoleucine and Valine, twice a day is recommended.

1-Carbohydrate Metabolism Profile See Nutrition Detail

Decreased	Normal	Increased
		Lactate Pyruvate

CARBOHYDRATE METABOLISM PROFILE
When Lactate and Pyruvate are elevated it indicates a potential for impaired carbohydrate metabolism. This pattern indicates suboptimal operation of carbohydrate metabolism, interfering with efficient cellualr energy production. Various pathways being over- or under- utilized can be nutritionally supported with digestive enzymes, B-Complex, Lipoic acid, and CoEnzyme Q10 supplementation. Recommended nutrients include:
B-Complex (2x daily)
Lipoic Acid (2x daily)
CoEnzyme Q10 (1x daily)
Digestive Enzymes (1-2 with each meal)

Wallace, DC, Mitochondrial genetics: a paradigm for aging and degenerative diseases?, Science, 256:628-632 (1992).
Corral-Debrinski, Shffner JM, Lott MY, Wallace DC, Association of mitochondrial DNA damage with aging and coronary artherosclerotic heart disease. Mutat Res, 275:169-180 (1992).

Nutritional and herbal information contained in this report is based upon research related to imbalances in your chemistry. The recommendations are based upon the information provided, without interpretation. This must be done with the help of a qualified health care professional.

1-Carbohydrate Metabolism Profile See Nutrition Detail

CARBOHYDRATE METABOLISM PROFILE

When Triglycerides are elevated to this degree it indicates a potential for impaired carbohydrate metabolism. This pattern indicates suboptimal operation of carbohydrate metabolism, interfering with efficient cellular energy production. Various pathways being over- or under- utilized can be nutritionally supported with digestive enzymes, B-Complex, Lipoic acid, and CoEnzyme Q10 supplementation. Recommended nutrients include:
B-Complex (2x daily)
Lipoic Acid (2x daily)
CoEnzyme Q10 (2x 50 mg daily)
Digestive Enzymes (1-2 with each meal)

Wallace, DC, Mitochondrial genetics: a paradigm for aging and degenerative diseases?, Science, 256:628-632 (1992).
Corral-Debrinski, Shffner JM, Lott MY, Wallace DC, Association of mitochondrial DNA damage with aging and coronary artherosclerotic heart disease. Mutat Res, 275:169-180 (1992).

Rationale

Decreased	Normal	Increased
		Triglycerides

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
		Glucose
		Triglycerides

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

1-Homocysteine Lowering Protocol See Nutrition Detail

HOMOCYSTEINE LOWERING PROTOCOL

Vitamin B6 - 100 - 200 mg twice daily
Vitamin B12 - 1000 mcg twice daily
Folic Acid - 800 mcg twice daily
Magnesium - 500 mg daily (in the form of glycinate or citrate)
For children between the ages of 6 and 18 take 1/2 the adult dose.

Decreased	Normal	Increased
		Homocysteine

1-Increase Fluid Intake 6-8 glasses daily

INCREASE FLUID INTAKE

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

Decreased	Normal	Increased
	R.B.C.	Hematocrit
		Hemoglobin

1-Oral Electrolyte - Standard Formula 2x daily

ORAL ELECTROLYTE

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

Decreased	Normal	Increased
Sodium	Potassium	
	CO2	

Nutritional and herbal information contained in this report is based upon research related to imbalances in your chemistry. The recommendations are based upon the information provided, without interpretation. This must be done with the help of a qualified health care professional.

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

PYRIDOXINE (B6)
B6 function involves many complex interrelated functions around amino acid metabolism. Cell processes involve PLP in immune modulation, fatty acids, steroid hormone, receptors, neurotransmitters, gluconeogenesis, and heme synthesis.

Rationale

Decreased	Normal	Increased
		Cystathionine - P

1-Pyridoxine (B6) 1x daily 100 mg

PYRIDOXINE (B6)
a-Aminoadipic acid is an excellent marker for the risk of cardiovasular disease being specific to vitamin B6 unlike homocysteine which is non-specific. B6 function involves many complex interrelated functions around amino acid metabolism. Cell processes involve PLP in immune modulation, fatty acids, steroid hormone, receptors, neurotransmitters, gluconeogenesis, and heme synthesis.

Decreased	Normal	Increased
a-Amino-N-Butyric Acid - P		a-Aminoadipic Acid - P

1-Taurine 2x daily 500 mg

TAURINE
An amino-sulfonic acid and modulator of cation flux, especially for Ca. A neuromodulator indirectly depressing neuroexcitation through control over glutamate. It also mediates contractility in the cardiac muscle.

Decreased	Normal	Increased
Taurine - P		a-Aminoadipic Acid - P

1-Tyrosine 2x daily 500 mg

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

Decreased	Normal	Increased
		Ultra-Sensitive TSH

1-Tyrosine 2x daily 500 mg

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

Decreased	Normal	Increased
Vanilmandelate Homovanillate		

1-Zinc Sulfate or Citrate 2x daily 25 mg

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

Decreased	Normal	Increased
Testosterone		

2-Arginine 2x daily 500 mg Contraindicated for Herpes sufferers

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

Decreased	Normal	Increased
Arginine - P	Lysine - P Ornithine - P	

Nutritional and herbal information contained in this report is based upon research related to imbalances in your chemistry. The recommendations are based upon the information provided, without interpretation. This must be done with the help of a qualified health care professional.

2-Betaine HCL 2 tablets at mealtime

BETAIN HCl

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

Rationale

Decreased	Normal	Increased
Proline - P	Hydroxyproline - P	3-Methylhistidine - P

2-Copper, Iron & Iodine 1x daily see detail

COPPER (Cu)
2 mg
A component of various proteins and enzymes. Regulates cholesterol metabolism, heme, immune function, myelin, catecholamine, temperature, bone mineralization and cross linking of collagen and elastin.

IRON (Fe)
15 mg
Vital component in synthesis of hemoglobin, myoglobin and catecholamines. Enzymatic roles in energy - involved in cell respiration, peroxide scavenging, electron transfer and systemic hormone action.

IODINE (I)
225 mcg
Iodine is an essential component of the thyroid hormones. Thyroxine, a main component of thyroid function, contains four iodine atoms.

Decreased	Normal	Increased
		Tyrosine - P

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

MAGNESIUM (Mg)
250 mg
Second most abundant cation in intracellular fluid. It helps facilitate Na - K transport and influences Ca levels. It is involved in vasodilation, contraction, as well as cardiac and skeletal muscle cells. Required in over 300 enzymes, temperature control, neuronal homeostasis and has a profound effect on cardiac physiology.

PYRIDOXINE (B6)
50 mg
B6 function involves many complex interrelated functions around amino acid metabolism. Cell processes involve PLP in immune modulation, fatty acids, steroid hormone, receptors, neurotransmitters, gluconeogenesis, and heme synthesis.

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

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

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

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

PYRIDOXINE (B6)
50 mg
B6 function involves many complex interrelated functions around amino acid metabolism. Cell processes involve PLP in immune modulation, fatty acids, steroid hormone, receptors, neurotransmitters, gluconeogenesis, and heme synthesis.

Decreased	Normal	Increased
a-Amino-N-Butyric Acid - P	Threonine - P	

Nutritional and herbal information contained in this report is based upon research related to imbalances in your chemistry. The recommendations are based upon the information provided, without interpretation. This must be done with the help of a qualified health care professional.

2-Zinc Citrate 2x daily 50 mg

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

Rationale

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

H - Billberry 1 - 3 times daily

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

Decreased	Normal	Increased
	Iron, Total	Glucose Triglycerides

H - Garlic 1 - 3 times daily

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

Decreased	Normal	Increased
		LDL Cholesterol

H - Ginseng (Panax) 1 - 3 times daily

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

Decreased	Normal	Increased
		Glucose

AVOID THE FOLLOWING SUPPLEMENTS

AVOID Acetic Acid

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.

Decreased	Normal	Increased
Sodium		

AVOID Creatine

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

Decreased	Normal	Increased
		Creatinine

AVOID MCT Oil Prescription only

MCT OILS (MEDIUM CHAIN TRIGLYCERIDES)
Saturated fatty acids that are 6 to 12 carbons long. They are absorbed easily because of the greater solubility due to their smaller molecular size.

Decreased	Normal	Increased
		Triglycerides

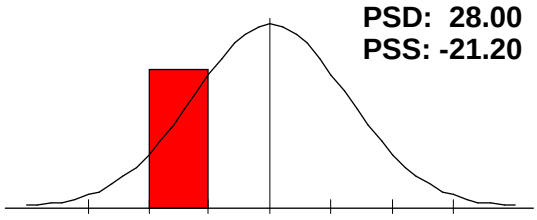
Drugs listed below tend to further aggravate elements of blood chemistry that are out of range (H or L). The (#) after each drug denotes the number of times that drug is flagged as being potentially harmful.

ACTH	Acetaminophen(2)	Acetazolamide	Acyclovir(2)
Albuterol	Amitriptyline	Aspirin(3)	Aspirin(2)
Carbamazepine(3)	Carbamazepine(3)	Chlorpromazine(2)	Clofibrate(2)
Corticosteroids	Cortisol	Cortisone(2)	Cortisone
Dextrothyroxine	Epinephrine(2)	Estrogens	Furosemide(6)
Gemfibrozil(2)	Gentamicin	Griseofulvin	Haloperidol(2)
Hydralazine(2)	Hydroxyurea(2)	Ibuprofen(3)	Imipramine(5)
Indomethacin(3)	Itraconazole(2)	Kanamycin	Ketocanazole
Levodopa	Levothyroxine	Lithium(4)	MAO Inhibitors
Mannitol(2)	Mercaptopurine	Methimazole	Methotrexate(2)
Methyldopa(3)	Miconazole(3)	Morphine	Naproxen
Neomycin	Nifedipine(3)	Nitrofurantoin(2)	Paramethadione(2)
Paromomycin	Penicillamine(2)	Penicillin	Phenelzine
Phenobarbital(2)	Phenylbutazone(3)	Phenytoin(3)	Piroxicam
Polythiazide(3)	Pravastatin(2)	Prednisone(5)	Progesterone
Progestins	Propranolol(2)	Protriptyline	Prozac
Ramipril	Reserpine(3)	Rifampin	Streptomycin
Sulfamethoxazole(2)	Tamoxifen(3)	Tetracycline(2)	Triameterene(2)
Trimethadione	Valproic Acid(2)	Vancomycin	Vasopressin
Viomycin			

Ammonia/Energy

Arginine - P[L], Threonine - P, Glycine - P[L], Serine - P[L], a-Aminoadipic Acid - P[H], 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.

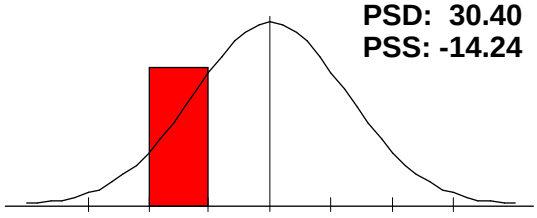


PSD: 28.00
PSS: -21.20

CNS Metabolism

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

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

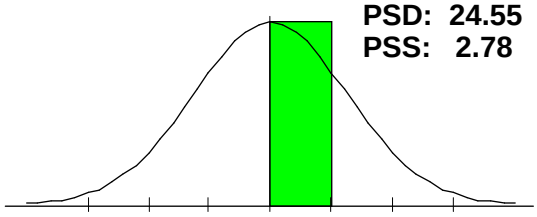


PSD: 30.40
PSS: -14.24

Connective Tissue

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

This panel profile shows that there is adequate supply and metabolism of amino acids to produce healthy connective tissue and collagen.

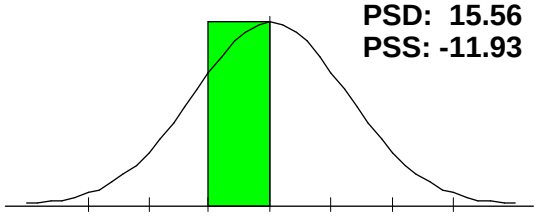


PSD: 24.55
PSS: 2.78

Essential Amino Acid

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

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

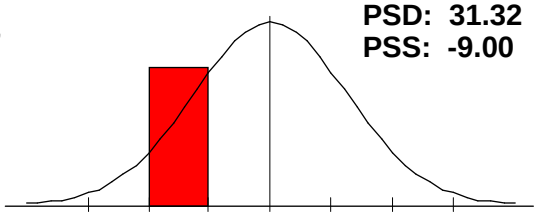


PSD: 15.56
PSS: -11.93

Fat Metabolism

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

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

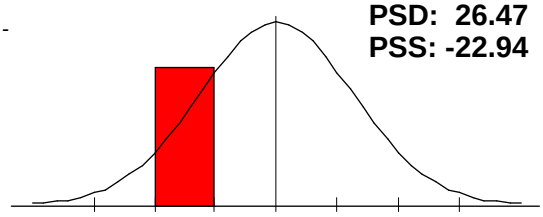


PSD: 31.32
PSS: -9.00

Gluconeogen

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

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

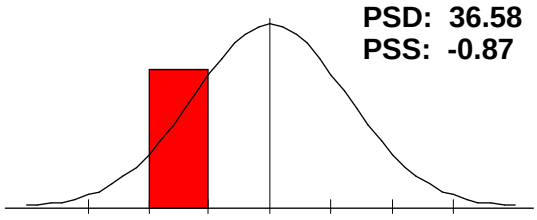


PSD: 26.47
PSS: -22.94

Hepatic Metabolism

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

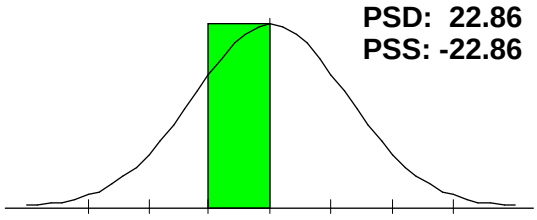
A panel profile such as this may be indicative of an underfunctioning liver or poor dietary protein intake.



Immune Metabolites

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

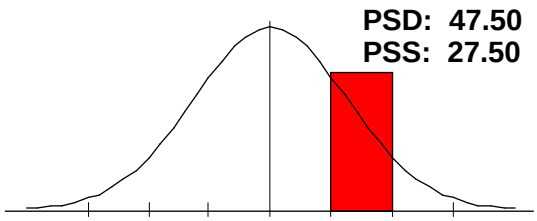
The panel profile seen here is indicative of having adequate amounts of the listed amino acids needed for proper immune system responses.



Muscle Metabolites

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

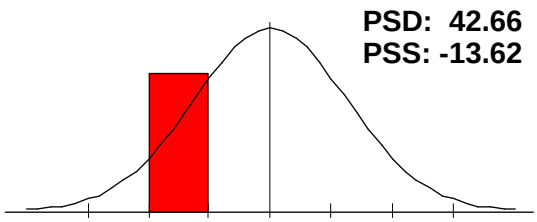
This panel profile may be indicative of abnormal protein metabolism especially if 1-methylhistidine is elevated.



Neuroendocrine Met.

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

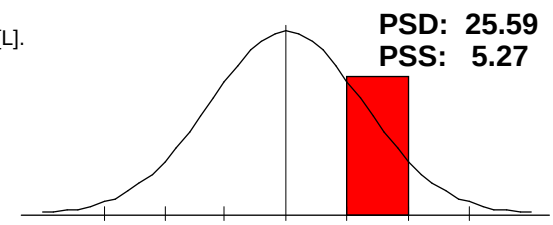
This panel profile may be indicative of an underfunctioning endocrine system or poor dietary intake of protein.



Adrenal Function

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

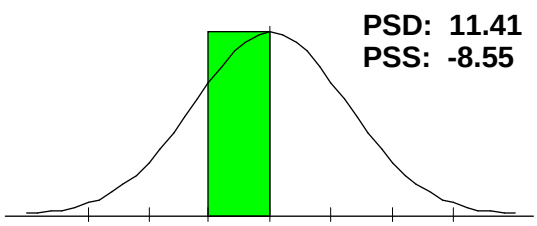
This profile may be in part due to poor nutritional habits, allergies and inadequate fluid intake. Clinical signs may include inability to handle stress, poor circulation, and fatigue.



Allergy

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

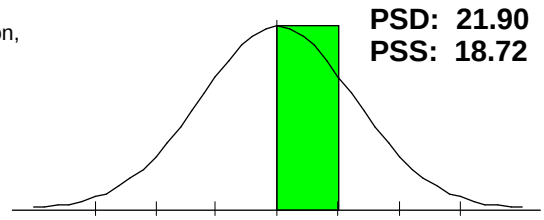
This panel is used to assess the individual's response to potential allergens. Abnormalities in this panel may indicate the need for additional allergy testing. The deviation was below 25% so no abnormalities were found.



Anti Oxidant Status

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

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.

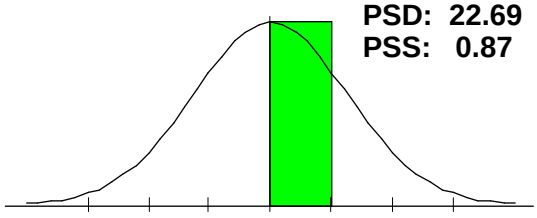


PSD: 21.90
PSS: 18.72

Athletic Potential

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

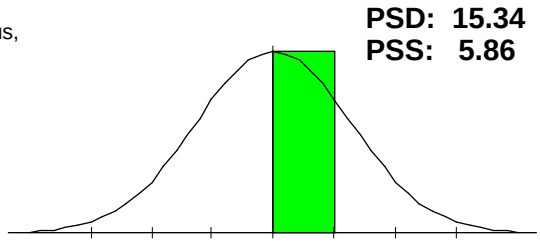


PSD: 22.69
PSS: 0.87

Bone/Joint

Albumin[H], 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.

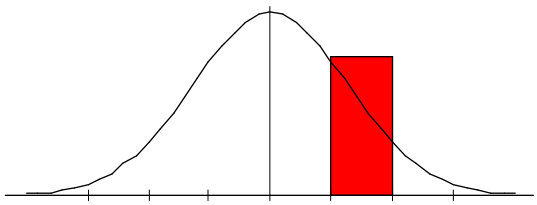


PSD: 15.34
PSS: 5.86

Cardiac Marker

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

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

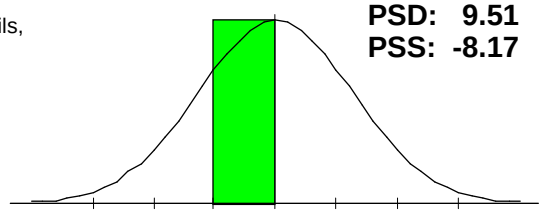


PSD: 40.53
PSS: 31.98

Cellular Distortions

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

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

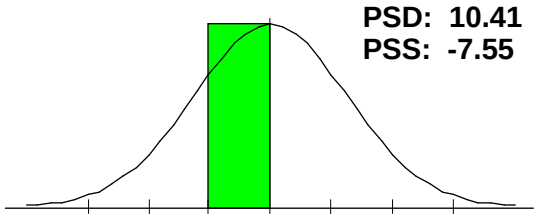


PSD: 9.51
PSS: -8.17

Differential

Basophils, Eosinophils, Lymphocytes, Monocytes, Neutrophils.

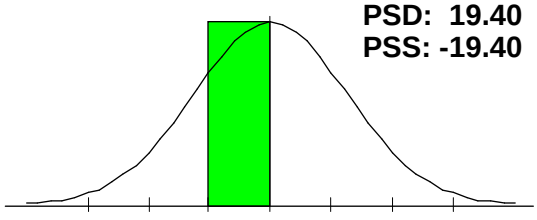
This panel may be helpful in assessing immune system health. Excesses or deficiencies in this panel may indicate a compromised immune system. The deviation was below 25% so no abnormalities were found.



Differential Count

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

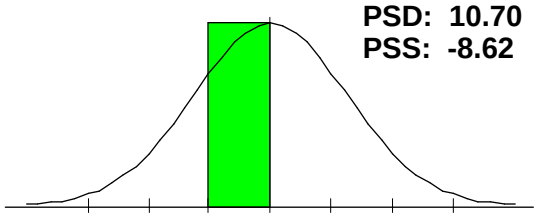
This panel may be helpful in assessing immune system health. Excesses or deficiencies in this panel may indicate a compromised immune system. The deviation was below 25% so no abnormalities were found.



Electrolyte

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

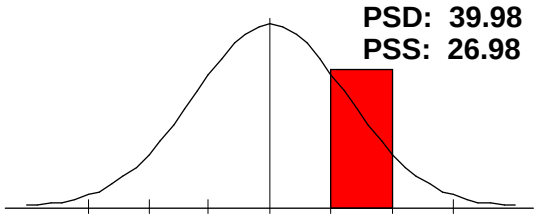
This panel is a representation of electrolyte balance in blood. Balance is critical in maintaining and achieving optimal health. The deviation was below 25% so no abnormalities were found.



Gastrointest. Function

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

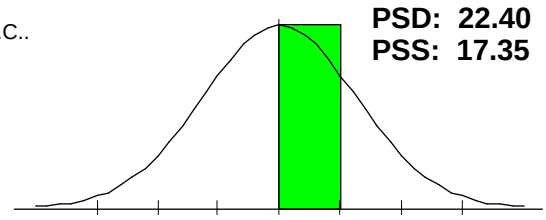
This panel profile indicates the need for further evaluation of gastrointestinal integrity, digestion and absorption. Check for dysbiosis, food allergies or "leaky gut" syndrome.



Hematology

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

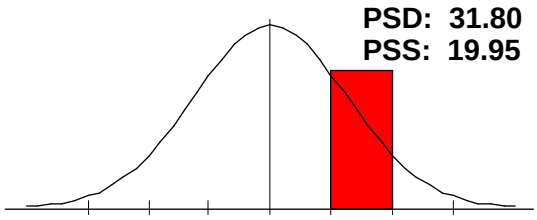
The hematology panel assesses the production of red blood cells and their function. The deviation was below 25% so no abnormalities were found.



Inflammatory Process

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

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

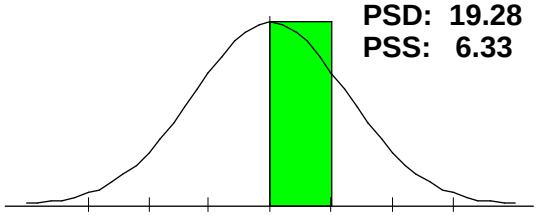


Kidney Function

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

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.

PSD: 19.28
PSS: 6.33

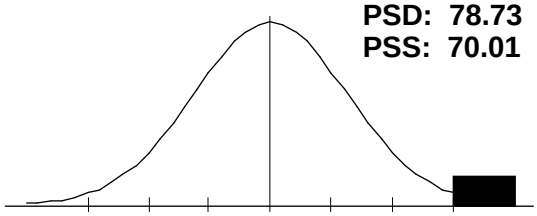


Lipid

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

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

PSD: 78.73
PSS: 70.01

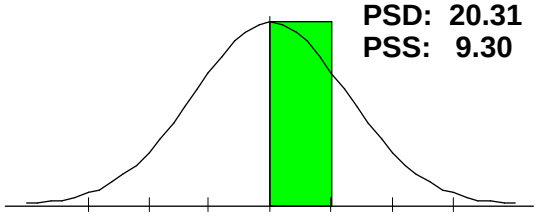


Liver Function

Albumin[H], 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.

PSD: 20.31
PSS: 9.30

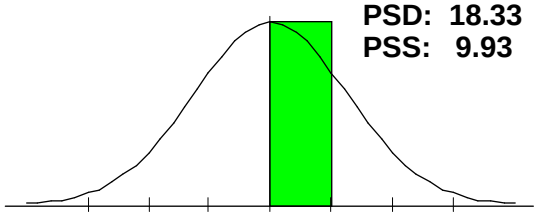


Nitrogen

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

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

PSD: 18.33
PSS: 9.93

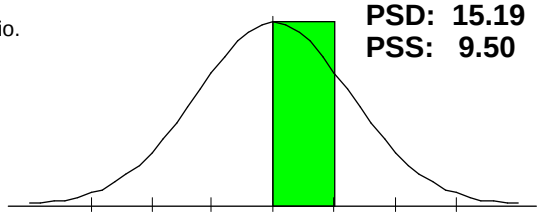


Protein

A/G Ratio, Albumin[H], 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.

PSD: 15.19
PSS: 9.50

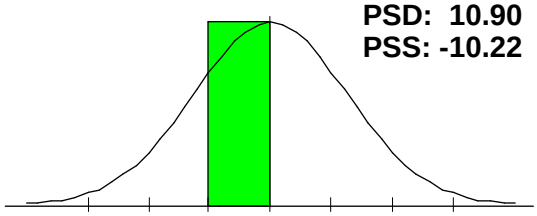


Pulmonary Function

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

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

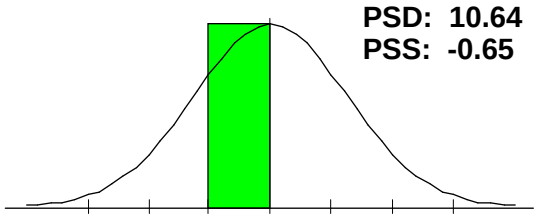
PSD: 10.90
PSS: -10.22



Ratios

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

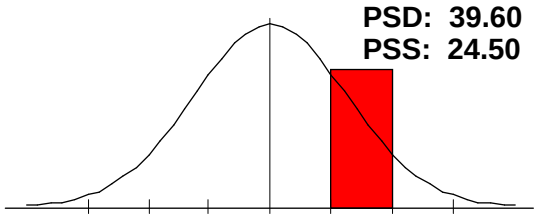
This panel may be helpful in determining the general balance of the overall chemistry of the individual. The deviation was below 25% so no abnormalities were found.



Thyroid

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

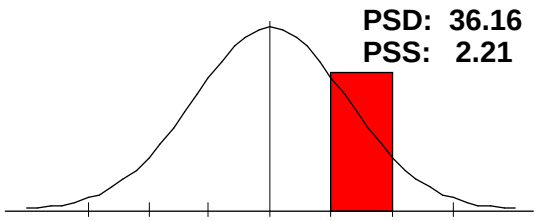
This panel may indicate the need for a careful review of the individual markers in order to determine causative factors.



Chronic Inflammatory Markers

C-Reactive Protein, Ferritin[L], Fibrinogen[H].

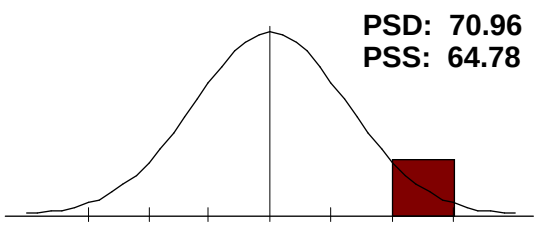
A high reading within this panel suggests an ongoing inflammatory process. Along with an increased risk of coronary heart disease, this reading is also seen in rheumatoid arthritis, infection and tissue injury.



Lipoprotein Factors

Total Cholesterol[H], HDL Cholesterol, LDL Cholesterol Direct[H], Triglycerides[H], Lipoprotein (a).

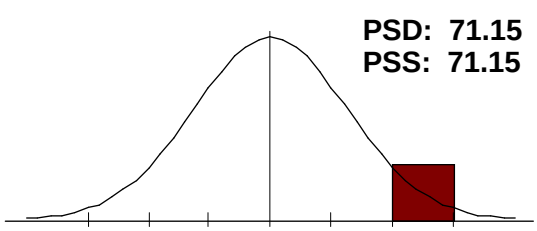
High readings have been related to an increase in the risk of coronary heart disease.



Lipoprotein Ratios

LDL/HDL[H], Total/HDL[H].

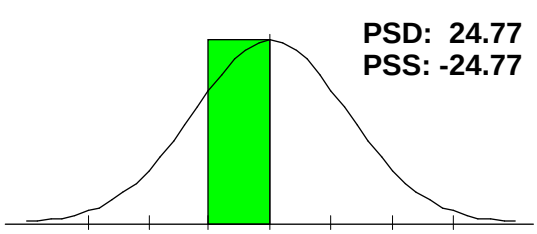
Statistical analysis of research data into cardiovascular disease suggests that these ratios are better predictors of CVD risk than the individual reading themselves. High readings and indicative of an increased risk of cardiovascular disease.



Other CHP Indicators

RBC Magnesium, Insulin, Testosterone[L], Sex Hormone BG, Free Androgen Index[L].

Some results in this panel may increase the risk for developing cardiovascular disease. The individual markers within the panel should be reviewed and steps should be taken to balance the results

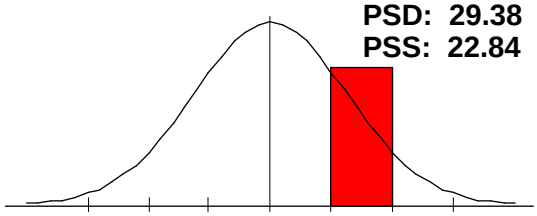


Oxidant Stress Factors

Coenzyme Q10, Vitamin E, Lipid Peroxides, Homocysteine[H].

Oxidative stress is an important risk factor in cardiovascular disease. A overly low reading may indicate the overuse of antioxidants. An increased reading of this panel indicates an increased risk of developing cardiovascular disease.

PSD: 29.38
PSS: 22.84

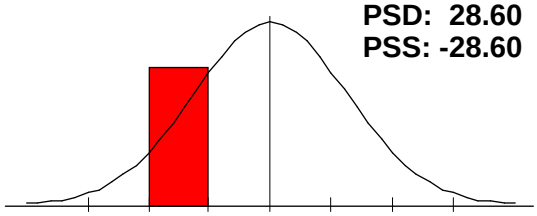


Amino Acid Catabolism

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

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

PSD: 28.60
PSS: -28.60

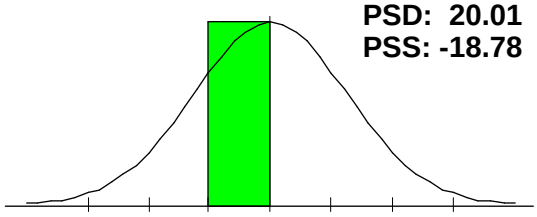


B-Complex Markers

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

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

PSD: 20.01
PSS: -18.78

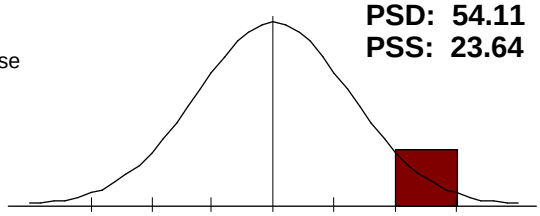


CAC Cycle Ratios

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

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

PSD: 54.11
PSS: 23.64

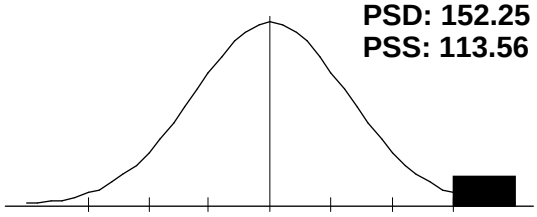


Carbohydrate Metabolism

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

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

PSD: 152.25
PSS: 113.56

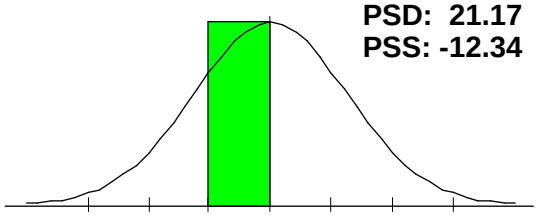


Citric Acid Cycle

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

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

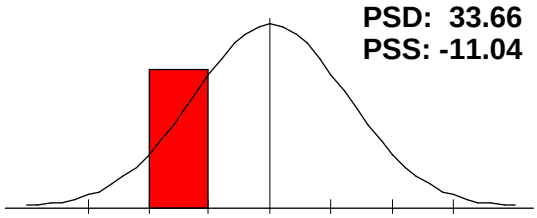
PSD: 21.17
PSS: -12.34



Intestinal Dysbiosis

Benzoate[H], p-Hydroxyphenyllactate[L], Phenylacetate[H], Phenylpropionate[L], Tricarballylate, DHPP, Indican[L].

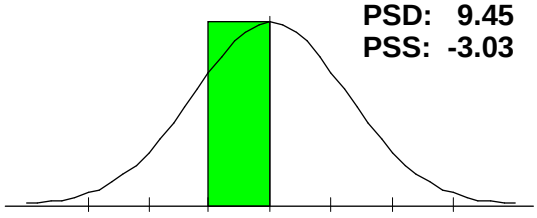
This profile is consistant with good intestinal health.



Liver Detox Indicators

2-Methylhippurate, Glucarate, P-Hydroxyphenylacetate, Orotate, Pyroglutamate, Sulfate.

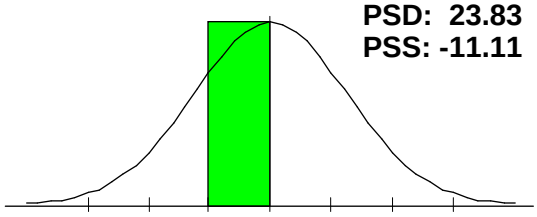
A normal liver detox panel is consistant with good liver detoxification processes.



Neurotransmitters

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

A normal panel profile indicated good neurotransmitter production.



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*
		75.00 Cystathionine - P

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

Decreased	*Normal*	*Increased*
-33.33 Aspartic Acid - P		

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

Decreased	*Normal*	*Increased*
-31.82 Arginine - P		**50.00 Homocystine - P**

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

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

Decreased	*Normal*	*Increased*
-43.92 Taurine - P		

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

Decreased	*Normal*	*Increased*
	-17.44 HDL-Cholesterol	**70.00 Cholesterol**
		44.12 Glucose
		131.88 Triglycerides
		24.14 Uric Acid
		95.59 LDL

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

Euthyroid Sick Syndrome () — 66.67% (2 of 3)

Decreased	*Normal*	*Increased*
n/a Triiodothyronine	**-15.33 Thyroxine (T4)**	**104.86 Ultra-Sensitive TSH**

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

Status % on:	8/31/2005		4/12/2006		+/- change
Lysine - P	**-54.00**	**L**	-3.57		+ 50.43
Histidine - P	**-57.14**	**L**	-15.49		+ 41.66
AA Competency-1	**-48.90**	**L**	-12.34		+ 36.56
Threonine - P	**-42.00**	**L**	-6.72		+ 35.28
Arginine - P	**-56.97**	**L**	**-31.82**	**L**	**+ 25.15**
Methionine - P	**-45.00**	**L**	-20.00		+ 25.00
Sarcosine - P	-10.00		**68.80**	**H**	**- 58.80**
3-Methylhistidine - P	10.00		**50.00**	**H**	**- 40.00**
Collagen Related AA	**29.33**	**H**	**65.53**	**H**	**- 36.20**
1-Methylhistidine - P	5.00		**-40.00**	**L**	**- 35.00**
Cystathionine - P	**50.00**	**H**	**75.00**	**H**	**- 25.00**

Comparison Report

Frank — **Foundational Wellness and Cardiovascular Date: 4/12/2006**

Male / Age: 62

The arrow's length is proportional to change. Left to right is increase. Right to left is decrease.
Green is improvement. Red is decline.

	+/-	Status % on:	8/31/2005		4/12/2006	
-40.00 ← 5.00	-	1-Methylhistidine - P	5.00		**-40.00**	**L**
10.00 → **50.00**	-	3-Methylhistidine - P	10.00		**50.00**	**H**
		a-Aminoadipic Acid - P	**25.00**	**H**	**30.00**	**H**
		a-Amino-N-Butyric Acid - P	**-33.33**	**L**	**-26.67**	**L**
-20.00 ← 4.29	-	Alanine - P	4.29		-20.00	
		Anserine - P	**50.00**	**H**	**50.00**	**H**
-56.97 → **-31.82**	+	Arginine - P	**-56.97**	**L**	**-31.82**	**L**
		Asparagine - P	**-37.88**	**L**	**-30.59**	**L**
-55.00 → **-33.33**	+	Aspartic Acid - P	**-55.00**	**L**	**-33.33**	**L**
		b-Alanine - P	-10.00		-10.00	
		b-Aminoisobutyric Acid - P	0.00		0.00	
		Carnosine - P	**50.00**	**H**	**50.00**	**H**
		Citrulline - P	**-38.00**	**L**	**-35.53**	**L**
29.33 → **65.53**	-	Collagen Related AA	**29.33**	**H**	**65.53**	**H**
50.00 → **75.00**	-	Cystathionine - P	**50.00**	**H**	**75.00**	**H**
-32.50 → -17.50	+	Cystine - P	**-32.50**	**L**	-17.50	
12.50 → **25.00**	-	Ethanolamine - P	12.50		**25.00**	**H**
		GABA - P	**30.00**	**H**	**30.00**	**H**
		Glutamic Acid - P	-14.08		17.62	
		Glutamine - P	**-27.37**	**L**	**-29.64**	**L**
-56.22 → **-43.05**	+	Glycine - P	**-56.22**	**L**	**-43.05**	**L**
		Glycine/Serine Ratio	**34.66**	**H**	**37.63**	**H**
-57.14 → -15.49	+	Histidine - P	**-57.14**	**L**	-15.49	
		Homocystine - P	**50.00**	**H**	**50.00**	**H**
		Hydroxylysine - P	**50.00**	**H**	**50.00**	**H**
-20.00 → -3.33	+	Hydroxyproline - P	-20.00		-3.33	
-36.36 → -19.73	+	Isoleucine - P	**-36.36**	**L**	-19.73	
-29.09 → 9.32	+	Leucine - P	**-29.09**	**L**	9.32	
-54.00 → -3.57	+	Lysine - P	**-54.00**	**L**	-3.57	
-45.00 → -20.00	+	Methionine - P	**-45.00**	**L**	-20.00	
-35.33 → -23.27	+	Ornithine - P	**-35.33**	**L**	-23.27	
-41.87 → -24.17	+	Phenylalanine - P	**-41.87**	**L**	-24.17	
-41.20 ← **-26.29**	-	Phenylalanine/Tyrosine	**-26.29**	**L**	**-41.20**	**L**
-10.00 ← **26.67**	+	Phosphoethanolamine - P	**26.67**	**H**	-10.00	
16.67 → **25.00**	-	Phosphoserine - P	16.67		**25.00**	**H**
-50.37 → **-30.26**	+	Proline - P	**-50.37**	**L**	**-30.26**	**L**
-10.00 → **68.80**	-	Sarcosine - P	-10.00		**68.80**	**H**
-61.52 → **-53.75**	+	Serine - P	**-61.52**	**L**	**-53.75**	**L**
		Taurine - P	**-46.00**	**L**	**-43.92**	**L**
-42.00 → -6.72	+	Threonine - P	**-42.00**	**L**	-6.72	
		Tryptophan - P	-15.00		8.83	
-25.41 → **42.60**	-	Tyrosine - P	**-25.41**	**L**	**42.60**	**H**
-26.80 → -16.00	+	Valine - P	**-26.80**	**L**	-16.00	
		Total Status Deviation	**33.83**		**29.70**	
		Total Status Skew	**-14.52**		**0.10**	

Comparison Progress Report

Frank **Foundational Wellness and Cardiovascular Date: 4/12/2006**

Male / Age: 62

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

Status % on:	9/12/2005		4/12/2006		+/- change
GGT	**54.62**	**H**	0.77		+ 53.85
Ultra-Sensitive TSH	**58.86**	**H**	**104.86**	**H**	**- 46.00**

Comparison Report

Frank — **Foundational Wellness and Cardiovascular Date: 4/12/2006**

Male / Age: 62

The arrow's length is proportional to change. Left to right is increase. Right to left is decrease.
Green is improvement. Red is decline.

	+/-	Status % on:	9/12/2005		4/12/2006	
		A/G Ratio	-4.23		-4.23	
		Albumin	**41.67**	**H**	**41.67**	**H**
-17.20 ← 8.40	-	Alkaline Phosphatase	8.40		-17.20	
		Anion Gap	12.50		-5.00	
		B.U.N.	7.14		2.38	
-16.80 ← -0.24	-	B.U.N./Creatinine Ratio	-0.24		-16.80	
		Basophil Count	-15.50		-19.50	
		Basophils	-16.67		-16.67	
-13.64 → -4.55	+	Bilirubin, Total	-13.64		-4.55	
2.38 ← 11.90	+	Calcium	11.90		2.38	
		Calcium/Phosphorus Ratio	8.24		10.91	
3.85 ← 19.23	+	Chloride	19.23		3.85	
		Cholesterol	**70.00**	**H**	**70.00**	**H**
-16.67 → -8.33	+	CO2	-16.67		-8.33	
10.00 → **30.00**	-	Creatinine	10.00		**30.00**	**H**
		Eosinophil Count	9.00		-11.20	
7.14 ← 21.43	+	Eosinophils	21.43		7.14	
		Free T4 Index (T7)	-12.16		-14.86	
0.77 ← **54.62**	+	GGT	**54.62**	**H**	0.77	
		Globulin	-10.00		-10.00	
44.12 ← **64.71**	+	Glucose	**64.71**	**H**	**44.12**	**H**
		HDL-Cholesterol	-12.79		-17.44	
		Hematocrit	21.43		**25.00**	**H**
		Hemoglobin	**27.78**	**H**	**34.44**	**H**
		Iron, Total	-9.13		3.91	
		LDH	-20.67		-16.00	
82.35 → **95.59**	-	LDL	**82.35**	**H**	**95.59**	**H**
		Lymphocyte Count	-21.70		**-27.30**	**L**
		Lymphocytes	-16.67		-16.67	
		MCH	19.61		23.57	
		MCHC	19.57		**26.34**	**H**
		MCV	14.63		15.09	
		Monocyte Count	-18.56		-18.00	
-16.67 → -5.56	+	Monocytes	-16.67		-5.56	
-20.98 ← -13.37	-	Neutrophil Count	-13.37		-20.98	
		Neutrophils	-6.00		-6.00	
		Phosphorus	-5.00		-10.00	
		Potassium	0.00		-5.00	
		Protein, Total	6.00		6.00	
		Protein/Globulin Ratio	14.07		14.07	
		R.B.C.	11.33		14.67	
		sGOT	7.50		-5.00	
-17.27 ← -2.73	-	sGPT	-2.73		-17.27	
-34.62 ← -11.54	-	Sodium	-11.54		**-34.62**	**L**
		T-3 Uptake	16.67		23.33	
		Thyroxine (T4)	-8.67		-15.33	
131.88 ← **156.04**	+	Triglycerides	**156.04**	**H**	**131.88**	**H**
58.86 → **104.86**	-	Ultra-Sensitive TSH	**58.86**	**H**	**104.86**	**H**
8.62 → 24.14	-	Uric Acid	8.62		24.14	
-17.69 ← -5.38	-	W.B.C.	-5.38		-17.69	
		Total Status Deviation	**20.95**		**22.35**	
		Total Status Skew	**10.55**		**6.73**	

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

Status % on:	6/28/2004		4/12/2006		+/- change
C-Reactive Protein	**470.00**	**H**	-17.67		+ 452.33
Lipid Peroxides	**50.00**	**H**	-11.50		+ 38.50
Insulin	**-45.24**	**L**	-9.00		+ 36.24
Coenzyme Q10	**-31.43**	**L**	-1.58		+ 29.85
Triglycerides	**28.40**	**H**	**153.20**	**H**	**- 124.80**
Total Cholesterol	**40.00**	**H**	**83.50**	**H**	**- 43.50**
LDL/HDL	**28.79**	**H**	**71.21**	**H**	**- 42.42**
LDL Cholesterol Direct	**62.86**	**H**	**100.77**	**H**	**- 37.91**
Total/HDL	**45.56**	**H**	**71.09**	**H**	**- 25.53**

Comparison Report

Frank — **Foundational Wellness and Cardiovascular Date: 4/12/2006**

Male / Age: 62

The arrow's length is proportional to change. Left to right is increase. Right to left is decrease.
Green is improvement. Red is decline.

	+/-	Status % on:	6/28/2004		4/12/2006	
-31.43 → -1.58	+	Coenzyme Q10	**-31.43**	**L**	-1.58	
-17.67 ← **470.00**	+	C-Reactive Protein	**470.00**	**H**	-17.67	
		Ferritin	**-27.78**	**L**	**-33.25**	**L**
		Fibrinogen	**54.44**	**H**	**57.56**	**H**
		Free Androgen Index	**-36.15**	**L**	**-34.27**	**L**
-26.00 → -15.45	+	HDL Cholesterol	**-26.00**	**L**	-15.45	
63.33 → **84.09**	-	Homocysteine	**63.33**	**H**	**84.09**	**H**
-45.24 → -9.00	+	Insulin	**-45.24**	**L**	-9.00	
62.86 → **100.77**	-	LDL Cholesterol Direct	**62.86**	**H**	**100.77**	**H**
28.79 → **71.21**	-	LDL/HDL	**28.79**	**H**	**71.21**	**H**
-11.50 ← **50.00**	+	Lipid Peroxides	**50.00**	**H**	-11.50	
-12.16 → 1.89	+	Lipoprotein (a)	-12.16		1.89	
		RBC Magnesium	**-26.67**	**L**	-20.97	
		Sex Hormone BG	-22.41		-23.97	
		Testosterone	**-29.67**	**L**	**-35.61**	**L**
40.00 → **83.50**	-	Total Cholesterol	**40.00**	**H**	**83.50**	**H**
45.56 → **71.09**	-	Total/HDL	**45.56**	**H**	**71.09**	**H**
28.40 → **153.20**	-	Triglycerides	**28.40**	**H**	**153.20**	**H**
-39.43 → 20.33	+	Vitamin E	**-39.43**	**L**	20.33	
		Total Status Deviation	**60.02**		**44.57**	
		Total Status Skew	**28.76**		**23.18**	

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

Status % on:	9/3/2005		4/12/2006		+/- change
Pyroglutamate	**146.29**	**H**	8.76		+ 137.52
Isocitrate	**-55.00**	**L**	-3.35		+ 51.65
a-Ketoglutarate	**60.80**	**H**	-9.33		+ 51.47
Orotate	**42.50**	**H**	-6.30		+ 36.20
b-Hydroxyisovalerate	**-36.00**	**L**	3.09		+ 32.91
Hydroxymethylglutarate	**-40.00**	**L**	-14.90		+ 25.10
Lactate	21.94		**444.76**	**H**	**- 422.83**
CA Cycle Phase 6	**-60.22**	**L**	**147.70**	**H**	**- 87.48**
Pyruvate	-5.40		**86.84**	**H**	**- 81.44**
CA Cycle Phase 1	**59.09**	**H**	**124.74**	**H**	**- 65.65**
b-Hydroxybutyrate	-4.00		**-42.95**	**L**	**- 38.95**
p-Hydroxyphenyllactate	-1.43		**-38.26**	**L**	**- 36.84**
a-Ketoisovalerate	-3.33		**-39.36**	**L**	**- 36.03**
Homovanillate	-3.12		**-31.29**	**L**	**- 28.17**
a-Keto-b-methylvalerate	6.00		**-32.68**	**L**	**- 26.68**

Comparison Report

Frank — **Foundational Wellness and Cardiovascular Date: 4/12/2006**

Male / Age: 62

The arrow's length is proportional to change. Left to right is increase. Right to left is decrease.
Green is improvement. Red is decline.

	+/-	Status % on:	9/3/2005		4/12/2006	
		5-Hydroxyindoleacetate	18.57		**25.27**	**H**
-6.62 ← 15.00	+	Adipate	15.00		-6.62	
		a-Hydroxybutyrate	**-27.14**	**L**	**-34.43**	**L**
-32.68 ← 6.00	-	a-Keto-b-methylvalerate	6.00		**-32.68**	**L**
-9.33 → **60.80**	+	a-Ketoglutarate	**60.80**	**H**	-9.33	
-13.77 ← -3.33	-	a-Ketoisocaproate	-3.33		-13.77	
-39.36 ← -3.33	-	a-Ketoisovalerate	-3.33		**-39.36**	**L**
-47.33 → **38.25**	+	Benzoate	**-47.33**	**L**	**38.25**	**H**
-42.95 ← -4.00	-	b-Hydroxybutyrate	-4.00		**-42.95**	**L**
-36.00 → 3.09	+	b-Hydroxyisovalerate	**-36.00**	**L**	3.09	
-33.21 ← 17.15	-	CA Cycle Return	17.15		**-33.21**	**L**
-54.34 ← **-43.75**	-	cis-Aconitate	**-43.75**	**L**	**-54.34**	**L**
		Citrate	8.54		-9.34	
-15.36 → 4.17	+	Ethylmalonate	-15.36		4.17	
7.50 → 20.64	-	Fumarate	7.50		20.64	
-33.50 → **41.66**	-	Hippurate	**-33.50**	**L**	**41.66**	**H**
-31.29 ← -3.12	-	Homovanillate	-3.12		**-31.29**	**L**
-40.00 → -14.90	+	Hydroxymethylglutarate	**-40.00**	**L**	-14.90	
-55.00 → -3.35	+	Isocitrate	**-55.00**	**L**	-3.35	
6.53 ← **27.83**	+	Kynurenate	**27.83**	**H**	6.53	
21.94 → **444.76**	-	Lactate	21.94		**444.76**	**H**
		Malate	20.35		14.66	
-11.16 ← 3.00	-	Methylmalonate	3.00		-11.16	
-6.30 ← **42.50**	+	Orotate	**42.50**	**H**	-6.30	
-27.62 ← -6.50	-	p-Hydroxybenzoate	-6.50		**-27.62**	**L**
-25.05 → -9.27	+	P-Hydroxyphenylacetate	**-25.05**	**L**	-9.27	
-38.26 ← -1.43	-	p-Hydroxyphenyllactate	-1.43		**-38.26**	**L**
8.76 ← **146.29**	+	Pyroglutamate	**146.29**	**H**	8.76	
-5.40 → **86.84**	-	Pyruvate	-5.40		**86.84**	**H**
		Quinolinate	5.33		-0.82	
-18.54 ← 1.82	-	Suberate	1.82		-18.54	
		Succinate	**-49.29**	**L**	**-42.77**	**L**
-20.71 ← 4.00	-	Tricarballylate	4.00		-20.71	
		Vanilmandelate	**-50.00**	**L**	**-55.23**	**L**
		Total Status Deviation	**29.09**		**40.57**	
		Total Status Skew	**0.23**		**4.55**	

Ammonia/Energy	8/31/2005		4/12/2006		+/-
Arginine - P	**-56.97**	**L**	**-31.82**	**L**	**+**
Threonine - P	**-42.00**	**L**	-6.72		**+**
Glycine - P	**-56.22**	**L**	**-43.05**	**L**	**+**
Serine - P	**-61.52**	**L**	**-53.75**	**L**	**+**
a-Aminoadipic Acid - P	**25.00**	**H**	**30.00**	**H**	
Asparagine - P	**-37.88**	**L**	**-30.59**	**L**	
Aspartic Acid - P	**-55.00**	**L**	**-33.33**	**L**	**+**
Citrulline - P	**-38.00**	**L**	**-35.53**	**L**	
Glutamic Acid - P	-14.08		17.62		
Glutamine - P	**-27.37**	**L**	**-29.64**	**L**	
Ornithine - P	**-35.33**	**L**	-23.27		**+**
a-Amino-N-Butyric Acid - P	**-33.33**	**L**	**-26.67**	**L**	
Alanine - P	4.29		-20.00		**-**
b-Alanine - P	-10.00		-10.00		
PSS / PSD	-31.32 / 35.50		-21.20 / 28.00		

CNS Metabolism	8/31/2005		4/12/2006		+/-
Arginine - P	**-56.97**	**L**	**-31.82**	**L**	**+**
Tryptophan - P	-15.00		8.83		
GABA - P	**30.00**	**H**	**30.00**	**H**	
Glycine - P	**-56.22**	**L**	**-43.05**	**L**	**+**
Serine - P	**-61.52**	**L**	**-53.75**	**L**	**+**
Taurine - P	**-46.00**	**L**	**-43.92**	**L**	
Aspartic Acid - P	**-55.00**	**L**	**-33.33**	**L**	**+**
Glutamine - P	**-27.37**	**L**	**-29.64**	**L**	
Ethanolamine - P	12.50		**25.00**	**H**	**-**
Phosphoethanolamine - P	**26.67**	**H**	-10.00		**+**
Phosphoserine - P	16.67		**25.00**	**H**	**-**
PSS / PSD	-21.11 / 36.72		-14.24 / 30.40		

Connective Tissue	8/31/2005		4/12/2006		+/-
Leucine - P	**-29.09**	**L**	9.32		**+**
Methionine - P	**-45.00**	**L**	-20.00		**+**
Valine - P	**-26.80**	**L**	-16.00		**+**
Cystine - P	**-32.50**	**L**	-17.50		**+**
Hydroxylysine - P	**50.00**	**H**	**50.00**	**H**	
Hydroxyproline - P	-20.00		-3.33		**+**
3-Methylhistidine - P	10.00		**50.00**	**H**	**-**
Proline - P	**-50.37**	**L**	**-30.26**	**L**	**+**
PSS / PSD	-17.97 / 32.97		2.78 / 24.55		

Essential Amino Acid	8/31/2005		4/12/2006		+/-
Arginine - P	**-56.97**	**L**	**-31.82**	**L**	**+**
Histidine - P	**-57.14**	**L**	-15.49		**+**
Isoleucine - P	**-36.36**	**L**	-19.73		**+**
Leucine - P	**-29.09**	**L**	9.32		**+**
Lysine - P	**-54.00**	**L**	-3.57		**+**
Methionine - P	**-45.00**	**L**	-20.00		**+**
Phenylalanine - P	**-41.87**	**L**	-24.17		**+**
Threonine - P	**-42.00**	**L**	-6.72		**+**
Tryptophan - P	-15.00		8.83		
Valine - P	**-26.80**	**L**	-16.00		**+**
PSS / PSD	-40.42 / 40.42		-11.93 / 15.56		

Fat Metabolism	8/31/2005		4/12/2006		+/-
Arginine - P	**-56.97**	**L**	**-31.82**	**L**	**+**
Isoleucine - P	**-36.36**	**L**	-19.73		**+**
Leucine - P	**-29.09**	**L**	9.32		**+**
Valine - P	**-26.80**	**L**	-16.00		**+**
Taurine - P	**-46.00**	**L**	**-43.92**	**L**	
Glutamine - P	**-27.37**	**L**	**-29.64**	**L**	
Sarcosine - P	-10.00		**68.80**	**H**	**-**
PSS / PSD	-33.23 / 33.23		-9.00 / 31.32		

Gluconeogen	8/31/2005		4/12/2006		+/-
Threonine - P	**-42.00**	**L**	-6.72		**+**
Tryptophan - P	-15.00		8.83		
Glycine - P	**-56.22**	**L**	**-43.05**	**L**	**+**
Serine - P	**-61.52**	**L**	**-53.75**	**L**	**+**
Alanine - P	4.29		-20.00		**-**
PSS / PSD	-34.09 / 35.81		-22.94 / 26.47		

Hepatic Metabolism	8/31/2005		4/12/2006		+/-
Methionine - P	**-45.00**	**L**	-20.00		**+**
Taurine - P	**-46.00**	**L**	**-43.92**	**L**	
Glutamine - P	**-27.37**	**L**	**-29.64**	**L**	
Cystine - P	**-32.50**	**L**	-17.50		**+**
Cystathionine - P	**50.00**	**H**	**75.00**	**H**	**-**
Homocystine - P	**50.00**	**H**	**50.00**	**H**	
Alanine - P	4.29		-20.00		**-**
PSS / PSD	-6.66 / 36.45		-0.87 / 36.58		

Immune Metabolites	8/31/2005		4/12/2006		+/-
Arginine - P	**-56.97**	**L**	**-31.82**	**L**	**+**
Threonine - P	**-42.00**	**L**	-6.72		**+**
Glutamine - P	**-27.37**	**L**	**-29.64**	**L**	
Ornithine - P	**-35.33**	**L**	-23.27		**+**
PSS / PSD	-40.42 / 40.42		-22.86 / 22.86		

Panel/Subset Comparison Report

Frank — **Foundational Wellness and Cardiovascular Date: 4/12/2006**

Male / Age: 62

Muscle Metabolites	8/31/2005		4/12/2006		+/-	
Anserine - P	**50.00**	**H**	**50.00**	**H**		
Carnosine - P	**50.00**	**H**	**50.00**	**H**		
1-Methylhistidine - P	5.00		**-40.00**	**L**	-	**-40.00** ← 5.00
3-Methylhistidine - P	10.00		**50.00**	**H**	-	10.00 → **50.00**
PSS / PSD	28.75 / 28.75		27.50 / 47.50			

Neuroendocrine Met.	8/31/2005		4/12/2006		+/-	
GABA - P	**30.00**	**H**	**30.00**	**H**		
Glycine - P	**-56.22**	**L**	**-43.05**	**L**	+	**-56.22** → **-43.05**
Serine - P	**-61.52**	**L**	**-53.75**	**L**	+	**-61.52** → **-53.75**
Taurine - P	**-46.00**	**L**	**-43.92**	**L**		
Tyrosine - P	**-25.41**	**L**	**42.60**	**H**	-	**-25.41** → **42.60**
PSS / PSD	-31.83 / 43.83		-13.62 / 42.66			

Adrenal Function	9/12/2005		4/12/2006		+/-	
Cholesterol	**70.00**	**H**	**70.00**	**H**		
Eosinophils	21.43		7.14		+	7.14 ← 21.43
Eosinophil Count	9.00		-11.20			
Potassium	0.00		-5.00			
Sodium	-11.54		**-34.62**	**L**	-	**-34.62** ← -11.54
PSS / PSD	17.78 / 22.39		5.27 / 25.59			

Allergy	9/12/2005	4/12/2006	+/-	
Eosinophils	21.43	7.14	+	7.14 ← 21.43
Globulin	-10.00	-10.00		
Lymphocytes	-16.67	-16.67		
Monocytes	-16.67	-5.56	+	-16.67 → -5.56
W.B.C.	-5.38	-17.69	-	-17.69 ← -5.38
PSS / PSD	-5.46 / 14.03	-8.55 / 11.41		

Anti Oxidant Status	9/12/2005		4/12/2006		+/-	
Anion Gap	12.50		-5.00			
Bilirubin, Total	-13.64		-4.55		+	-13.64 → -4.55
Chloride	19.23		3.85		+	3.85 ← 19.23
Cholesterol	**70.00**	**H**	**70.00**	**H**		
Glucose	**64.71**	**H**	**44.12**	**H**	+	**44.12** ← **64.71**
Iron, Total	-9.13		3.91			
PSS / PSD	23.94 / 31.53		18.72 / 21.90			

Athletic Potential	9/12/2005		4/12/2006		+/-	
B.U.N./Creatinine Ratio	-0.24		-16.80		-	-16.80 ← -0.24
Cholesterol	**70.00**	**H**	**70.00**	**H**		
CO2	-16.67		-8.33		+	-16.67 → -8.33
Creatinine	10.00		**30.00**	**H**	-	10.00 → **30.00**
LDH	-20.67		-16.00			
Potassium	0.00		-5.00			
Protein, Total	6.00		6.00			
Sodium	-11.54		**-34.62**	**L**	-	**-34.62** ← -11.54
HDL-Cholesterol	-12.79		-17.44			
PSS / PSD	2.68 / 16.43		0.87 / 22.69			

Bone/Joint	9/12/2005		4/12/2006		+/-
Albumin	**41.67**	**H**	**41.67**	**H**	
Alkaline Phosphatase	8.40		-17.20		-
Calcium	11.90		2.38		+
Neutrophils	-6.00		-6.00		
Phosphorus	-5.00		-10.00		
Protein, Total	6.00		6.00		
Uric Acid	8.62		24.14		-
PSS / PSD	9.37 / 12.51		5.86 / 15.34		

Cardiac Marker	9/12/2005		4/12/2006		+/-
Cholesterol	**70.00**	**H**	**70.00**	**H**	
GGT	**54.62**	**H**	0.77		+
Iron, Total	-9.13		3.91		
LDH	-20.67		-16.00		
sGOT	7.50		-5.00		
Triglycerides	**156.04**	**H**	**131.88**	**H**	+
Uric Acid	8.62		24.14		-
HDL-Cholesterol	-12.79		-17.44		
LDL	**82.35**	**H**	**95.59**	**H**	-
PSS / PSD	37.39 / 46.86		31.98 / 40.53		

Cellular Distortions	9/12/2005		4/12/2006		+/-
Alkaline Phosphatase	8.40		-17.20		-
Anion Gap	12.50		-5.00		
GGT	**54.62**	**H**	0.77		+
Iron, Total	-9.13		3.91		
LDH	-20.67		-16.00		
Neutrophils	-6.00		-6.00		
W.B.C.	-5.38		-17.69		-
PSS / PSD	4.90 / 16.67		-8.17 / 9.51		

Differential	9/12/2005		4/12/2006		+/-
Basophils	-16.67		-16.67		
Eosinophils	21.43		7.14		+
Lymphocytes	-16.67		-16.67		
Monocytes	-16.67		-5.56		+
Neutrophils	-6.00		-6.00		
PSS / PSD	-6.91 / 15.49		-7.55 / 10.41		

Differential Count	9/12/2005		4/12/2006		+/-
Basophil Count	-15.50		-19.50		
Eosinophil Count	9.00		-11.20		
Lymphocyte Count	-21.70		**-27.30**	**L**	
Monocyte Count	-18.56		-18.00		
Neutrophil Count	-13.37		-20.98		-
PSS / PSD	-12.03 / 15.63		-19.40 / 19.40		

Electrolyte	9/12/2005		4/12/2006		+/-	
Calcium	11.90		2.38		+	2.38 ← 11.90
Chloride	19.23		3.85		+	3.85 ← 19.23
CO2	-16.67		-8.33		+	-16.67 → -8.33
Phosphorus	-5.00		-10.00			
Potassium	0.00		-5.00			
Sodium	-11.54		**-34.62**	**L**	-	**-34.62** ← -11.54
PSS / PSD	-0.34 / 10.72		-8.62 / 10.70			

Gastrointest. Function	9/12/2005		4/12/2006		+/-	
Anion Gap	12.50		-5.00			
Chloride	19.23		3.85		+	3.85 ← 19.23
Cholesterol	**70.00**	**H**	**70.00**	**H**		
CO2	-16.67		-8.33		+	-16.67 → -8.33
Monocytes	-16.67		-5.56		+	-16.67 → -5.56
Potassium	0.00		-5.00			
Sodium	-11.54		**-34.62**	**L**	-	**-34.62** ← -11.54
Triglycerides	**156.04**	**H**	**131.88**	**H**	+	**131.88** ← **156.04**
LDL	**82.35**	**H**	**95.59**	**H**	-	**82.35** → **95.59**
PSS / PSD	32.81 / 42.78		26.98 / 39.98			

Hematology	9/12/2005		4/12/2006		+/-	
Hematocrit	21.43		**25.00**	**H**		
Hemoglobin	**27.78**	**H**	**34.44**	**H**		
MCH	19.61		23.57			
MCHC	19.57		**26.34**	**H**		
MCV	14.63		15.09			
R.B.C.	11.33		14.67			
W.B.C.	-5.38		-17.69		-	-17.69 ← -5.38
PSS / PSD	15.57 / 17.10		17.35 / 22.40			

Inflammatory Process	9/12/2005		4/12/2006		+/-	
Eosinophils	21.43		7.14		+	7.14 ← 21.43
Globulin	-10.00		-10.00			
LDH	-20.67		-16.00			
Neutrophils	-6.00		-6.00			
Potassium	0.00		-5.00			
sGOT	7.50		-5.00			
sGPT	-2.73		-17.27		-	-17.27 ← -2.73
Triglycerides	**156.04**	**H**	**131.88**	**H**	+	**131.88** ← **156.04**
Uric Acid	8.62		24.14		-	8.62 → 24.14
LDL	**82.35**	**H**	**95.59**	**H**	-	**82.35** → **95.59**
PSS / PSD	23.65 / 31.53		19.95 / 31.80			

Panel/Subset Comparison Report

Frank
Male / Age: 62

Foundational Wellness and Cardiovascular Date: 4/12/2006

Kidney Function	9/12/2005		4/12/2006		+/-
Albumin	**41.67**	**H**	**41.67**	**H**	
B.U.N.	7.14		2.38		
B.U.N./Creatinine Ratio	-0.24		-16.80		-
Chloride	19.23		3.85		+
CO2	-16.67		-8.33		+
Creatinine	10.00		**30.00**	**H**	-
Glucose	**64.71**	**H**	**44.12**	**H**	+
Potassium	0.00		-5.00		
Protein, Total	6.00		6.00		
Sodium	-11.54		**-34.62**	**L**	-
PSS / PSD	12.03 / 17.72		6.33 / 19.28		

Lipid	9/12/2005		4/12/2006		+/-
Cholesterol	**70.00**	**H**	**70.00**	**H**	
Triglycerides	**156.04**	**H**	**131.88**	**H**	+
HDL-Cholesterol	-12.79		-17.44		
LDL	**82.35**	**H**	**95.59**	**H**	-
PSS / PSD	73.90 / 80.30		70.01 / 78.73		

Liver Function	9/12/2005		4/12/2006		+/-
Albumin	**41.67**	**H**	**41.67**	**H**	
Alkaline Phosphatase	8.40		-17.20		-
Bilirubin, Total	-13.64		-4.55		+
Cholesterol	**70.00**	**H**	**70.00**	**H**	
GGT	**54.62**	**H**	0.77		+
Protein, Total	6.00		6.00		
sGOT	7.50		-5.00		
sGPT	-2.73		-17.27		-
PSS / PSD	21.48 / 25.57		9.30 / 20.31		

Nitrogen	9/12/2005		4/12/2006		+/-
B.U.N.	7.14		2.38		
B.U.N./Creatinine Ratio	-0.24		-16.80		-
Creatinine	10.00		**30.00**	**H**	-
Uric Acid	8.62		24.14		-
PSS / PSD	6.38 / 6.50		9.93 / 18.33		

Protein	9/12/2005		4/12/2006		+/-
A/G Ratio	-4.23		-4.23		
Albumin	**41.67**	**H**	**41.67**	**H**	
Globulin	-10.00		-10.00		
Protein, Total	6.00		6.00		
Protein/Globulin Ratio	14.07		14.07		
PSS / PSD	9.50 / 15.19		9.50 / 15.19		

Panel/Subset Comparison Report

Frank — **Foundational Wellness and Cardiovascular Date: 4/12/2006**

Male / Age: 62

Pulmonary Function	9/12/2005		4/12/2006		+/-
Anion Gap	12.50		-5.00		
Calcium	11.90		2.38		+
CO2	-16.67		-8.33		+
LDH	-20.67		-16.00		
Potassium	0.00		-5.00		
sGOT	7.50		-5.00		
Sodium	-11.54		**-34.62**	**L**	-
PSS / PSD	-2.42 / 11.54		-10.22 / 10.90		

Ratios	9/12/2005	4/12/2006	+/-
A/G Ratio	-4.23	-4.23	
B.U.N./Creatinine Ratio	-0.24	-16.80	-
Calcium/Phosphorus Ratio	8.24	10.91	
Sodium/Potassium Ratio	-7.41	-7.20	
Protein/Globulin Ratio	14.07	14.07	
PSS / PSD	2.09 / 6.84	-0.65 / 10.64	

Thyroid	9/12/2005		4/12/2006		+/-
Thyroxine (T4)	-8.67		-15.33		
T-3 Uptake	16.67		23.33		
Free T4 Index (T7)	-12.16		-14.86		
Ultra-Sensitive TSH	**58.86**	**H**	**104.86**	**H**	-
PSS / PSD	13.67 / 24.09		24.50 / 39.60		

Chronic Inflammatory Markers	6/28/2004		4/12/2006		+/-
C-Reactive Protein	**470.00**	**H**	-17.67		+
Ferritin	**-27.78**	**L**	**-33.25**	**L**	
Fibrinogen	**54.44**	**H**	**57.56**	**H**	
PSS / PSD	165.56 / 184.07		2.21 / 36.16		

Lipoprotein Factors	6/28/2004		4/12/2006		+/-
Total Cholesterol	**40.00**	**H**	**83.50**	**H**	-
HDL Cholesterol	**-26.00**	**L**	-15.45		+
LDL Cholesterol Direct	**62.86**	**H**	**100.77**	**H**	-
Triglycerides	**28.40**	**H**	**153.20**	**H**	-
Lipoprotein (a)	-12.16		1.89		+
PSS / PSD	18.62 / 33.88		64.78 / 70.96		

Lipoprotein Ratios	6/28/2004		4/12/2006		+/-
LDL/HDL	**28.79**	**H**	**71.21**	**H**	-
Total/HDL	**45.56**	**H**	**71.09**	**H**	-
PSS / PSD	37.17 / 37.17		71.15 / 71.15		

Other CHP Indicators	6/28/2004		4/12/2006		+/-
RBC Magnesium	**-26.67**	**L**	-20.97		
Insulin	**-45.24**	**L**	-9.00		+
Testosterone	**-29.67**	**L**	**-35.61**	**L**	
Sex Hormone BG	-22.41		-23.97		
Free Androgen Index	**-36.15**	**L**	**-34.27**	**L**	
PSS / PSD	-32.03 / 32.03		-24.77 / 24.77		

Oxidant Stress Factors	6/28/2004		4/12/2006		+/-
Coenzyme Q10	**-31.43**	**L**	-1.58		+
Vitamin E	**-39.43**	**L**	20.33		+
Lipid Peroxides	**50.00**	**H**	-11.50		+
Homocysteine	**63.33**	**H**	**84.09**	**H**	-
PSS / PSD	10.62 / 46.05		22.84 / 29.38		

Amino Acid Catabolism	9/3/2005		4/12/2006		+/-
a-Ketoisovalerate	-3.33		**-39.36**	**L**	-
a-Ketoisocaproate	-3.33		-13.77		-
a-Keto-b-methylvalerate	6.00		**-32.68**	**L**	-
PSS / PSD	-0.22 / 4.22		-28.60 / 28.60		

B-Complex Markers	9/3/2005		4/12/2006		+/-
b-Hydroxyisovalerate	**-36.00**	**L**	3.09		+
a-Ketoisovalerate	-3.33		**-39.36**	**L**	-
a-Ketoisocaproate	-3.33		-13.77		-
a-Keto-b-methylvalerate	6.00		**-32.68**	**L**	-
Methylmalonate	3.00		-11.16		-
PSS / PSD	-6.73 / 10.33		-18.78 / 20.01		

CAC Cycle Ratios	9/3/2005		4/12/2006		+/-
CA Cycle Phase 1	**59.09**	**H**	**124.74**	**H**	-
CA Cycle Phase 2	-17.05		5.46		+
CA Cycle Phase 3	-13.89		10.44		
CA Cycle Phase 4	**-47.98**	**L**	**-46.28**	**L**	
CA Cycle Phase 5	**-46.23**	**L**	**-42.38**	**L**	
CA Cycle Phase 6	**-60.22**	**L**	**147.70**	**H**	-
CA Cycle Return	17.15		**-33.21**	**L**	-
PSS / PSD	-15.59 / 37.37		23.64 / 54.11		

Carbohydrate Metabolism	9/3/2005		4/12/2006		+/-
Lactate	21.94		**444.76**	**H**	-
Pyruvate	-5.40		**86.84**	**H**	-
a-Hydroxybutyrate	**-27.14**	**L**	**-34.43**	**L**	
b-Hydroxybutyrate	-4.00		**-42.95**	**L**	-
PSS / PSD	-3.65 / 14.62		113.56 / 152.25		

Citric Acid Cycle	9/3/2005		4/12/2006		+/-
Citrate	8.54		-9.34		
cis-Aconitate	**-43.75**	**L**	**-54.34**	**L**	-
Isocitrate	**-55.00**	**L**	-3.35		+
a-Ketoglutarate	**60.80**	**H**	-9.33		+
Succinate	**-49.29**	**L**	**-42.77**	**L**	
Fumarate	7.50		20.64		-
Malate	20.35		14.66		
Hydroxymethylglutarate	**-40.00**	**L**	-14.90		+
PSS / PSD	-11.36 / 35.65		-12.34 / 21.17		

Intestinal Dysbiosis	9/3/2005		4/12/2006		+/-
Benzoate	**-47.33**	**L**	**38.25**	**H**	**+**
p-Hydroxyphenyllactate	-1.43		**-38.26**	**L**	**-**
Tricarballylate	4.00		-20.71		**-**
PSS / PSD	-14.92 / 17.59		-11.04 / 33.66		

Liver Detox Indicators	9/3/2005		4/12/2006		+/-
P-Hydroxyphenylacetate	**-25.05**	**L**	-9.27		**+**
Orotate	**42.50**	**H**	-6.30		**+**
Pyroglutamate	**146.29**	**H**	8.76		**+**
PSS / PSD	54.58 / 71.28		-3.03 / 9.45		

Neurotransmitters	9/3/2005		4/12/2006		+/-
Vanilmandelate	**-50.00**	**L**	**-55.23**	**L**	
Homovanillate	-3.12		**-31.29**	**L**	**-**
5-Hydroxyindoleacetate	18.57		**25.27**	**H**	
Kynurenate	**27.83**	**H**	6.53		**+**
Quinolinate	5.33		-0.82		
PSS / PSD	-0.28 / 20.97		-11.11 / 23.83		