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Frank

Date: 2/21/2008

Next Test Due: 2/20/2009

LabAssist™ Blood Test Report

Practitioner

Printed on Monday, February 25, 2008 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

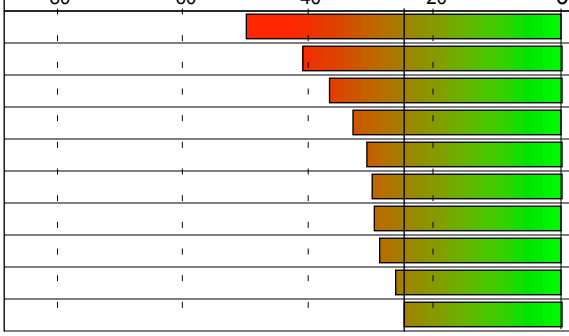
Frank **Blood Test Date: 2/21/2008**

Male / Age: 64

Client ID:548664859 (9732)

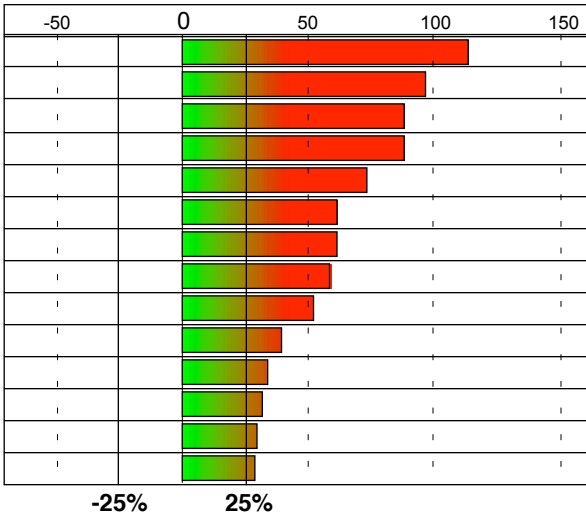
The % Status is the weighted deviation of the laboratory result.

Low Results



	% Status		Result	*Low*	*High*
Globulin	-50.00	**L**	**2.10**	2.10	3.70
LDH	-40.77	**L**	**132.00**	120.00	250.00
Basophil Count	-36.80	**L**	**26.40**	0.00	200.00
Alkaline Phosphatase	-32.67	**L**	**53.00**	40.00	115.00
Protein, Total	-30.95	**L**	**6.60**	6.20	8.30
Basophils	-30.00	**L**	**0.40**	0.00	2.00
sGPT	-29.49	**L**	**15.00**	7.00	46.00
sGOT	-28.79	**L**	**19.00**	12.00	45.00
Lymphocyte Count	-25.93	**L**	**1584.00**	850.00	3900.00
CO2	-25.00	**L**	**24.00**	21.00	33.00

High Results



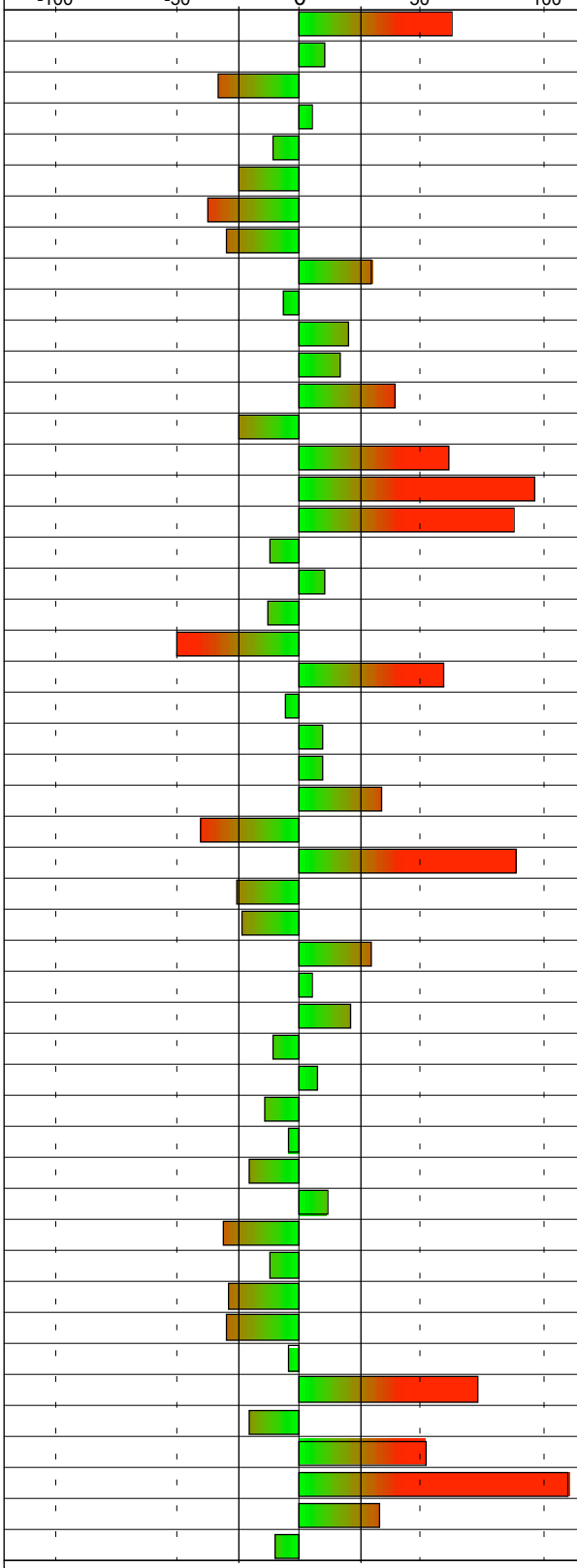
	% Status		Result	*Low*	*High*
Ultra-Sensitive TSH	112.86	**H**	**3.38**	1.10	2.50
Eosinophil Count	96.60	**H**	**726.00**	15.00	500.00
LDL	88.24	**H**	**156.00**	62.00	130.00
Eosinophils	87.50	**H**	**11.00**	0.00	8.00
T-3 Uptake	73.08	**H**	**38.00**	22.00	35.00
A/G Ratio	61.90	**H**	**2.14**	0.80	2.00
Creatinine	61.25	**H**	**1.39**	0.50	1.30
Glucose	58.82	**H**	**102.00**	65.00	99.00
Triglycerides	52.12	**H**	**203.00**	10.00	199.00
Cholesterol	39.17	**H**	**247.00**	140.00	260.00
Iron, Total	34.00	**H**	**150.00**	45.00	170.00
Uric Acid	32.22	**H**	**6.20**	2.50	7.00
Bilirubin, Total	30.00	**H**	**1.00**	0.20	1.20
MCH	29.09	**H**	**32.22**	27.40	33.50

Basic Status Alphabetic

Frank **Blood Test Date: 2/21/2008**

Male / Age: 64

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



	% Status		Result	Low	High
A/G Ratio	**61.90**	**H**	**2.14**	0.80	2.00
Albumin	10.00		4.50	3.60	5.10
Alkaline Phosphatase	**-32.67**	**L**	**53.00**	40.00	115.00
Anion Gap	5.00		14.60	8.00	20.00
B.U.N.	-11.11		14.00	7.00	25.00
B.U.N./Creatinine Ratio	-24.55		10.07	6.00	22.00
Basophil Count	**-36.80**	**L**	**26.40**	0.00	200.00
Basophils	**-30.00**	**L**	**0.40**	0.00	2.00
Bilirubin, Total	**30.00**	**H**	**1.00**	0.20	1.20
Calcium	-6.25		9.30	8.60	10.20
Calcium/Phosphorus Ratio	20.00		3.00	2.30	3.30
Chloride	16.67		106.00	98.00	110.00
Cholesterol	**39.17**	**H**	**247.00**	140.00	260.00
CO2	**-25.00**	**L**	**24.00**	21.00	33.00
Creatinine	**61.25**	**H**	**1.39**	0.50	1.30
Eosinophil Count	**96.60**	**H**	**726.00**	15.00	500.00
Eosinophils	**87.50**	**H**	**11.00**	0.00	8.00
Free T-3	-11.58		303.00	230.00	420.00
Free T-4	10.00		1.40	0.80	1.80
GGT	-12.82		31.00	2.00	80.00
Globulin	**-50.00**	**L**	**2.10**	2.10	3.70
Glucose	**58.82**	**H**	**102.00**	65.00	99.00
HDL-Cholesterol	-5.81		50.00	31.00	74.00
Hematocrit	9.13		45.30	38.50	50.00
Hemoglobin	8.97		15.50	13.20	17.10
Iron, Total	**34.00**	**H**	**150.00**	45.00	170.00
LDH	**-40.77**	**L**	**132.00**	120.00	250.00
LDL	**88.24**	**H**	**156.00**	62.00	130.00
Lymphocyte Count	**-25.93**	**L**	**1584.00**	850.00	3900.00
Lymphocytes	-23.53		24.00	15.00	49.00
MCH	**29.09**	**H**	**32.22**	27.40	33.50
MCHC	5.41		34.22	32.00	36.00
MCV	20.89		94.18	80.00	100.00
Monocyte Count	-10.67		495.00	200.00	950.00
Monocytes	7.69		7.50	0.00	13.00
Neutrophil Count	-13.99		3768.60	1500.00	7800.00
Neutrophils	-4.52		57.10	38.00	80.00
Phosphorus	-20.00		3.10	2.50	4.50
Potassium	11.11		4.60	3.50	5.30
Protein, Total	**-30.95**	**L**	**6.60**	6.20	8.30
R.B.C.	-11.88		4.81	4.20	5.80
sGOT	**-28.79**	**L**	**19.00**	12.00	45.00
sGPT	**-29.49**	**L**	**15.00**	7.00	46.00
Sodium	-4.55		140.00	135.00	146.00
T-3 Uptake	**73.08**	**H**	**38.00**	22.00	35.00
Thyroxine (T4)	-20.00		6.90	4.50	12.50
Triglycerides	**52.12**	**H**	**203.00**	10.00	199.00
Ultra-Sensitive TSH	**112.86**	**H**	**3.38**	1.10	2.50
Uric Acid	**32.22**	**H**	**6.20**	2.50	7.00
W.B.C.	-10.00		6.60	3.80	10.80
Total Status Deviation	**29.73**				
Total Status Skew	**8.77**				

Nutritional Support

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

- ☐ **1-Cardiovascular Health Protocol**
  See Nutrition Detail
- ☐ **1-Digestive Enzymes**
  With meals
- ☐ **1-Multivitamin w/Glucose Support**
  2x daily
- ☐ **1-Tyrosine**
  2x daily 500 mg
- ☐ **2-Sunlight**
  1 hour per day
- ☐ **3-Chromium Picolinate**
  1x daily 200 mcg
- ☐ **H - Billberry**
  1 - 3 times daily
- ☐ **H - Dandelion**
  1 - 3 times daily
- ☐ **H - Devil's Claw**
  1 - 3 times daily (3 weeks only)
- ☐ **H - Garlic**
  1 - 3 times daily
- ☐ **H - Ginseng (Panax)**
  1 - 3 times daily
- ☐ **H - Gugul**
  1 - 3 times daily

Nutritional Supplements to AVOID

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

Copper	Creatine	Iron Supplements	Molybdenum

Food Recommendations

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

Artichoke	Banana	Blackberries	Bok Choy Cabbage
Boysenberries	Brussel Sprouts	Eggplant	Escarole
Grapefruit	Guava	Halibut	Loganberries
Macadamia Nuts	Millet	Mozarella Cheese	Mushrooms
Mustard Greens	Orange	Pecans	Plaintains
Potatoes	Pumpkin	Snapper	Strawberries
Walnuts	Watermelon	Wild Rice	

Foods to AVOID

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

Bacon	Beer (2)	Black Beans	Cholesterol Rich Foods
Chuck Roast	Cider	Coconut Cream	Coconut Milk
Dairy Cream	Egg Yolk	Hydrogenated Fats	Liver
Liver Pate	Margarine	Sweetbreads	

Frank **Blood Test Date: 2/21/2008**

Male / Age: 64

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
Thyroid	53.98%	43.98%
Adrenal Function	47.78%	45.97%
Lipid	46.33%	43.43%
Inflammatory Process	42.48%	11.76%
Protein	38.21%	-2.26%
Cardiac Marker	37.10%	17.51%
Differential Count	36.80%	1.84%
Allergy	35.74%	2.33%
Nitrogen	32.28%	14.45%
Differential	30.65%	7.43%
Anti Oxidant Status	30.61%	30.61%
Ratios	29.87%	11.08%
Gastrointest. Function	27.73%	21.16%
Athletic Potential	27.02%	-2.23%
Liver Function	26.74%	-6.94%
Kidney Function	25.40%	6.17%

Lab Reported out-of-range Values

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

Ultra-Sensitive TSH (112.86%)

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:
Lithium Carbonate, Rifampin, Valproic Acid

Eosinophil Count (96.60%)

Eosinophils protect the body from parasites and allergic reactions. Therefore, elevated levels may indicate an allergic response.

Drugs which may have an adverse affect:
Amitriptyline

LDL (88.24%)

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.

Drugs which may have an adverse affect:
Clofibrate

Foods which may have an adverse affect:
Coconut Milk

Eosinophils (87.50%)

Eosinophils protect the body from parasites and allergic reactions, therefore, elevated levels may indicate an allergic response.

Drugs which may have an adverse affect:
Allopurinol, Amitriptyline, Ampicillin, Carbamazepine, Chlorpromazine, Clindamycin, Desipramine, Erythromycin, Fluorides, Fluphenazine, Haloperidol, Imipramine, Indomethacin, Kanamycin, Methyldopa, Naproxen, Nitrofurantoin, Penicillamine, Penicillin, Phenylbutazone, Phenytoin, Procainamide, Protriptyline, Rifampin, Streptomycin, Sulfamethoxazole, Sulfasalazine, Sulfisoxazole, Tetracycline, Triameterene, Viomycin

T-3 Uptake (73.08%)

This test is an indirect measurement of unsaturated thyroxine binding globulin in the blood. Increased levels are found in hyperthyroidism, severe liver disease, metastatic malignancy, and pulmonary insufficiency.

Drugs which may have an adverse affect:
Anabolic Steroids, Aspirin

A/G Ratio (61.90%)

The A/G ratio is a mathematical relationship between Albumin and Globulin. This ratio is an important indicator of disease states although a high level is not considered clinically significant. Low levels may be indicative of liver disease malabsorption, leukemia, rheumatoid arthritis, lupus, or bacterial pneumonia.

Creatinine (61.25%)

Creatinine is the waste product of muscle metabolism. Its level is a reflection of the body's muscle mass. Elevated levels are sometimes seen in kidney disease, muscle degeneration, or some drugs involved in impairment of kidney function.

Drugs which may have an adverse affect:
Acyclovir, Antacids, Aspirin, Clofibrate, Clonidine, Furosemide, Gentamicin, Griseofulvin, Hydralazine, Hydroxyurea, Ibuprofen, Imipramine, Indomethacin, Kanamycin, Lithium Carbonate, Mannitol, Naproxen, Neomycin, Nifedipine, Nitrofurantoin, Paramethadione, Paromomycin, Penicillamine, Penicillin, Phenylbutazone, Piroxicam, Prednisone, Ramipril, Sildenafil, Streptomycin, Tadalafil, Tetracycline, Triameterene, Vancomycin, Vardenafil

Nutrients which may have an adverse affect:
Creatine

Glucose (58.82%)

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

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

Triglycerides (52.12%)

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

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

Globulin (-50.00%)

Globulin, a larger protein than albumin, is important for its immunologic responses, especially its gamma portion (IgA, IGG, IgM, and IgE). Globulins have many diverse functions such as, the carrier of some hormones, lipids, metals, and antibodies. Lower levels may be found in immune compromised patients, poor dietary habits, malabsorption, and liver or kidney disease.

Drugs which may have an adverse affect:
Progestins

Additional Tests

The following additional lab tests may help in diagnosis.

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

Additional Tests (continued)

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

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

Consider ordering PTH profile
Rationale: Panel Thyroid Status Deviation is > 50%

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

Review patient's Zinc status
Rationale: % Status of Alkaline Phosphatase is < -25%

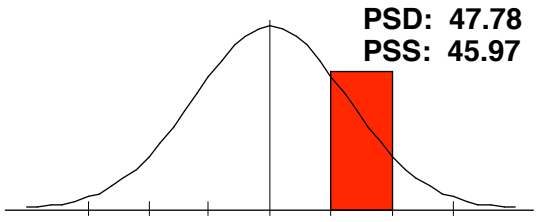
Frank **Blood Test Date: 2/21/2008**

Male / Age: 64

Adrenal Function

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

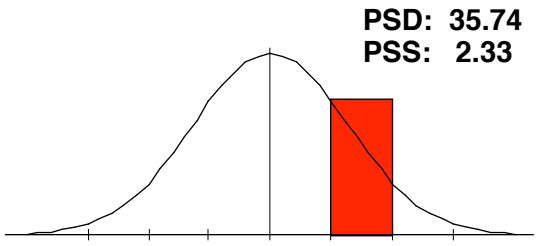
This profile may be in part due to poor nutritional habits, allergies and inadequate fluid intake. Clinical signs may include inability to handle stress, poor circulation, and fatigue.



Allergy

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

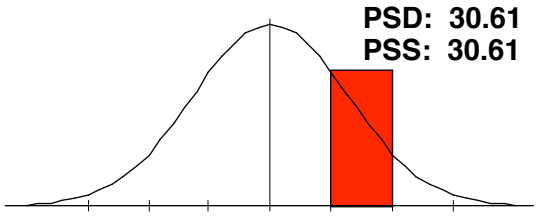
This panel profile may be due to allergies or a compromised immune system. Review the Differential and the Differential Count Panels for additional information. If Eosinophils are up and the CO2 is normal or depressed the likelihood of allergies is higher. If the Eosinophils and the CO2 are elevated than suspect parasites.



Anti Oxidant Status

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

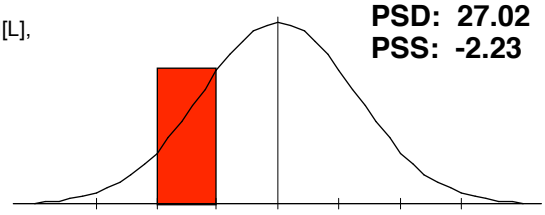
This panel profile may indicate that the patient needs to increase their intake of antioxidants and make appropriate lifestyle changes (smoking, alcohol, reduce stress, etc.). A varied, broad spectrum of antioxidants is preferable to one or two alone.



Athletic Potential

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

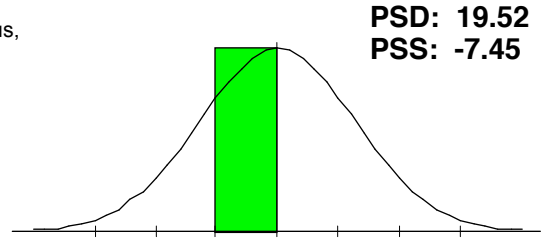
This profile may mean that the patient cannot achieve full athletic potential because of possible nutrient deficiencies. Increased nutrient intake from diet and supplements may be necessary.



Bone/Joint

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

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



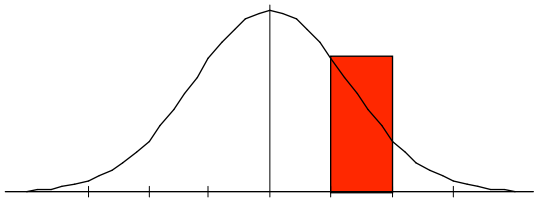
Frank **Blood Test Date: 2/21/2008**

Male / Age: 64

Cardiac Marker

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

PSD: 37.10
PSS: 17.51

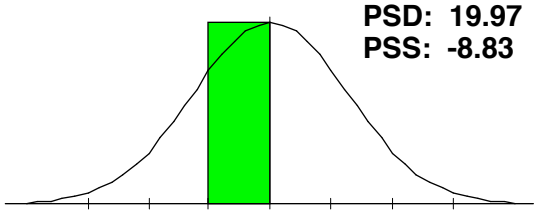


The profile shown here indicates that this individual may be at a greater risk for coronary heart disease than the general population. A review of dietary, environmental and personal habits should be done and appropriate lifestyle changes made. If both triglycerides and cholesterol are elevated, a regime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

Cellular Distortions

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

PSD: 19.97
PSS: -8.83

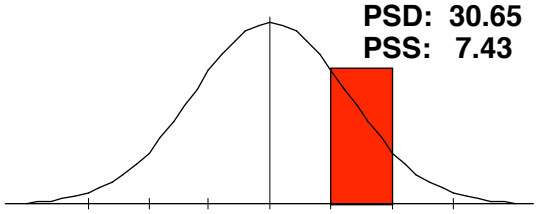


This panel may be helpful in determining the ability of the body to properly produce healthy cells. The deviation was below 25% so no abnormalities were found.

Differential

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

PSD: 30.65
PSS: 7.43

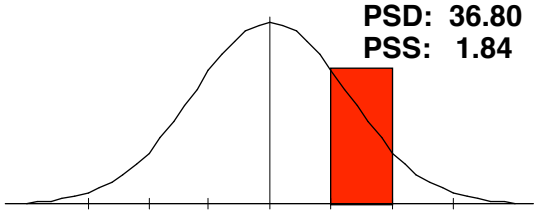


This panel profile may be indicative of a hightened immune system response. A careful review of the individual components of this panel is recommended.

Differential Count

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

PSD: 36.80
PSS: 1.84

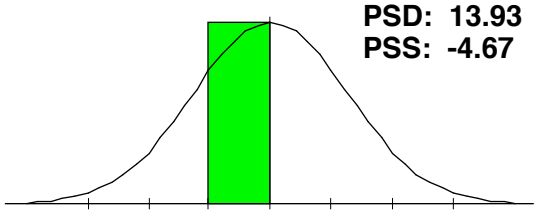


The positive Panel Status Skew may be indicative of a serious immune system response. A careful review of the individual component(s) which are out of balance may give a more detailed indication of the type of response the body is making.

Electrolyte

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

PSD: 13.93
PSS: -4.67



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.

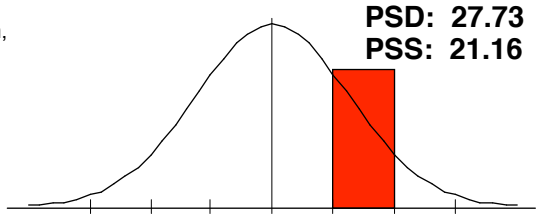
Frank
Male / Age: 64

Blood Test Date: 2/21/2008

Gastrointest. Function

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

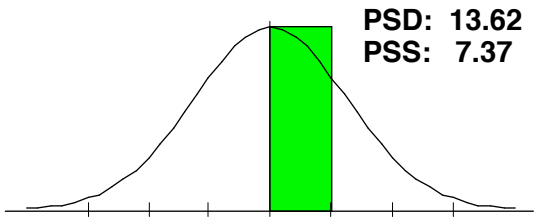
This panel profile indicates the need for further evaluation of gastrointestinal integrity, digestion and absorption. Check for dysbiosis, food allergies or "leaky gut" syndrome.



Hematology

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

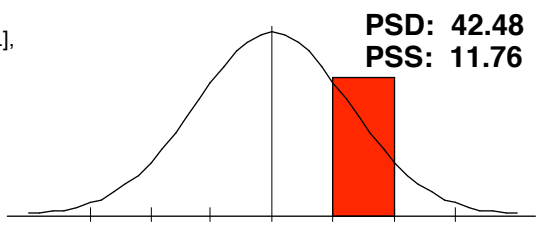
The hematology panel assesses the production of red blood cells and their function. The deviation was below 25% so no abnormalities were found.



Inflammatory Process

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

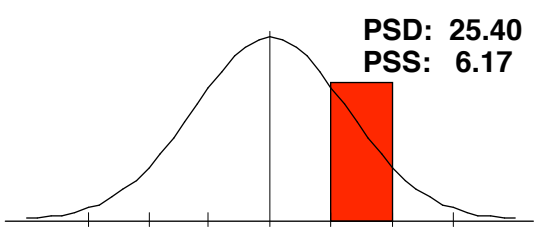
This panel profile may indicate the presence of an ongoing inflammatory process. Consider increasing B-complex vitamins and having the patient avoid saturated and trans fats as well.



Kidney Function

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

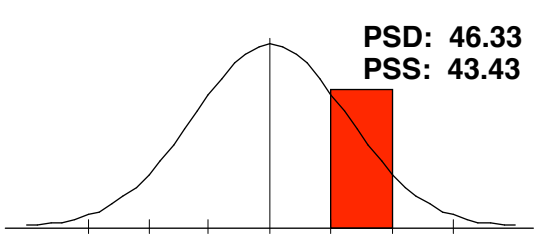
This panel profile indicates the benefit of careful review of kidney function. This may include a urinalysis to ascertain renal health.



Lipid

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

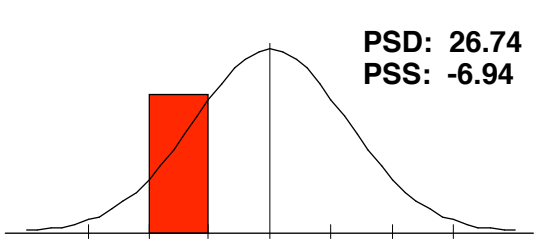
The panel profile seen here suggests that the patient may be at a greater risk for coronary heart disease than the general population. A dietary evaluation should be undertaken as well to educate the patient about saturated and trans fats.



Liver Function

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

The panel profile seen here may be indicative of nutrient depletion. Increase intake of nutrient rich foods and consider adding a multivitamin/mineral complex along with an amino acid complex.



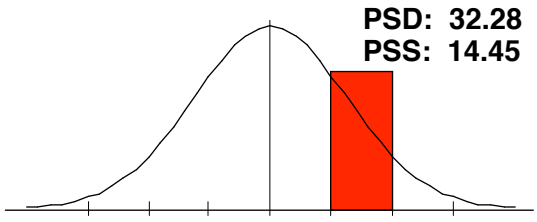
Frank **Blood Test Date: 2/21/2008**

Male / Age: 64

Nitrogen

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

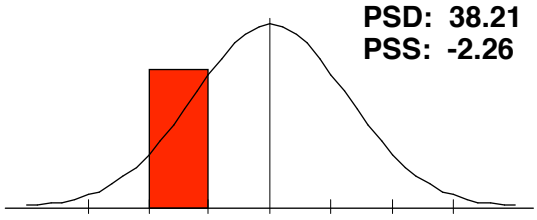
The panel profile seen here indicates the need for an assessment of the area of abnormality as well as ascertaining renal function, dietary intake, dysbiosis, congestive heart failure (this list is not all-inclusive).



Protein

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

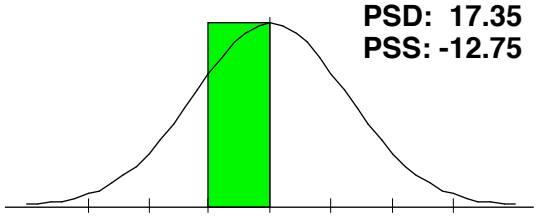
A panel profile such as this suggest that a careful review of the patient's dietary intake may be necessary as well as checking for a compromised immune response, malabsorption, malignancy and renal disease (this list is not all-inclusive).



Pulmonary Function

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

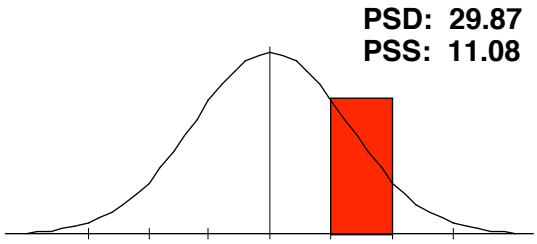
This panel may be helpful in assessing lung and respiratory function. The deviation was below 25% so no abnormalities were found.



Ratios

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

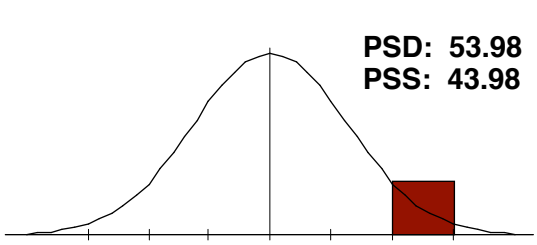
This profile indicates potential imbalances in the patient's chemistry. Review Nutritional Status section for recommendations to help balance this area. This panel provides a good tracking mechanism for showing improvements in the patient's biochemical status.



Thyroid

Thyroxine (T4), T-3 Uptake[H], Ultra-Sensitive TSH[H], Free T-4.

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



Drug Interactions

Frank **Blood Test Date: 2/21/2008**

Male / Age: 64

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(3)	Acetazolamide(4)	Acyclovir(2)
Albuterol	Allopurinol(4)	Amitriptyline(4)	Ammonium Chloride
Ampicillin(2)	Anabolic Steroids	Antacids	Aspirin(8)
Busulfan	Carbamazepine(4)	Chlorothiazide	Chlorpromazine(4)
Clindamycin(2)	Clofibrate(5)	Clonidine(4)	Colchicine
Corticosteroids(2)	Cortisone(2)	Coumarin	Desipramine(2)
Dextrothyroxine(2)	Diazepam	Epinephrine(4)	Erythromycin(2)
Estrogens	Fluorides(6)	Fluphenazine(2)	Flurazepam
Furosemide(5)	Gemfibrozil	Gentamicin(3)	Griseofulvin
Haloperidol(3)	Hydralazine(4)	Hydroxyurea(3)	Ibuprofen(4)
Imipramine(5)	Indomethacin(5)	Itraconazole(2)	Kanamycin(2)
Ketocanazole	Levodopa(3)	Levothyroxine	Lincomycin
Lithium Carbonate(4)	Lovastatin	MAO Inhibitors	Mannitol
Mercaptopurine(3)	Methimazole(3)	Methotrexate(4)	Methyldopa(5)
Miconazole(2)	Morphine	Naproxen(3)	Neomycin
Nifedipine(2)	Nitrofurantoin(4)	Oxacillin	Paramethadione(3)
Paromomycin	Penicillamine(4)	Penicillin(4)	Phenelzine(3)
Phenobarbital(2)	Phenylbutazone(6)	Phenytoin(4)	Piroxicam(3)
Polythiazide(4)	Pravastatin(2)	Prednisone(7)	Procainamide(3)
Procarbazine	Progesterone(2)	Progestins(3)	Propranolol(3)
Protriptyline(3)	Ramipril	Reserpine	Rifampin(5)
Salicylates(2)	Sildenafil	Streptomycin(3)	Sulfamethizole
Sulfamethoxazole(2)	Sulfasalazine(2)	Sulfisoxazole(2)	Tadalafil
Tamoxifen(4)	Tetracycline(4)	Triameterene(4)	Trimethadione(4)
Valproic Acid	Vancomycin	Vardenafil	Viomycin(2)

Frank **Blood Test Date: 2/21/2008**

Male / Age: 64

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-Cardiovascular Health Protocol See Nutrition Detail

CARDIOVASCULAR RISK PROTOCOL

This pattern indicates suboptimal operation of fat 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
	HDL-Cholesterol	Cholesterol LDL Uric Acid

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-Multivitamin w/Glucose Support 2x daily

MULTIVITAMIN - GLUCOSE SUPPORT

A multivitamin with nutrients to help moderate glucose levels may be helpful in balancing your chemistry.

Decreased	Normal	Increased
		Glucose Triglycerides

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

2-Sunlight 1 hour per day

SUNLIGHT

Studies have shown that sunlight may be effective in lowering bilirubin levels. Care should be taken in not overexposing the skin and increasing the risk for certain melanomas.

Decreased	Normal	Increased
		Bilirubin, Total

3-Chromium Picolinate 1x daily 200 mcg

CHROMIUM (Cr)

Constituent of GTF (glucose tolerance factor), works with insulin promoting glucose uptake. Functions in metabolism in nucleic acids, lipid metabolism, cholesterol and triglycerides.

Decreased	Normal	Increased
		Glucose Cholesterol Triglycerides

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
		Glucose Iron, Total Triglycerides

Frank **Blood Test Date: 2/21/2008**

Male / Age: 64

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

H - Dandelion 1 - 3 times daily

Rationale

DANDELION

The herb Dandelion (Taraxacum officinale) has been reported to be helpful in lowering cholesterol and in relieving jaundice (elevated bilirubin). As with any herb, caution should be taken with its use.

Decreased	Normal	Increased
		Bilirubin, Total
		Cholesterol
		LDL

H - Devil's Claw 1 - 3 times daily 3 weeks only

DEVIL'S CLAW

The herb devil's claw (Harpagophytum procumbens) has been reported to be effective in the short-term treatment of gout and the lowering of total cholesterol. As with any herb, caution should be taken with its use.

Decreased	Normal	Increased
		Cholesterol
		Uric Acid

H - Garlic 1 - 3 times daily

GARLIC

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

Decreased	Normal	Increased
		LDL
		Cholesterol

H - Ginseng (Panax) 1 - 3 times daily

GINSENG

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

Decreased	Normal	Increased
		Glucose

H - Gugul 1 - 3 times daily

GUGUL

Gugulipid (Commiphora mukul), is a resin derived from the mukul myrrh tree with both triglyceride and cholesterol lowering properties. It has also been reported to be beneficial in the treatment of inflammatory conditions. As with any herb caution should be taken with its use.

Decreased	Normal	Increased
		LDL
		Triglycerides
		Cholesterol

AVOID THE FOLLOWING SUPPLEMENTS

AVOID Copper

EXCESSIVE COPPER (Cu)

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

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

Decreased	Normal	Increased
		Iron, Total

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

Frank **Blood Test Date: 2/21/2008**

Male / Age: 64

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

AVOID THE FOLLOWING SUPPLEMENTS ***Rationale***

AVOID Iron Supplements

IRON (Fe)

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

Decreased	Normal	Increased
		Iron, Total

AVOID Molybdenum

MOLYBDENUM (Mo)

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

Decreased	Normal	Increased
		Uric Acid

Frank **Blood Test Date: 2/21/2008**

Male / Age: 64

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.

Potential Zinc Deficiency () 100.00% (2 of 2)

Decreased	*Normal*	*Increased*
-32.67 Alkaline Phosphatase		
-40.77 LDH		

Review Cardiovascular Risk Factors () 100.00% (6 of 6)

Decreased	*Normal*	*Increased*
	-5.81 HDL-Cholesterol	**39.17 Cholesterol**
		58.82 Glucose
		52.12 Triglycerides
		32.22 Uric Acid
		88.24 LDL

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

Hemochromatosis (275.00) 75.00% (6 of 8)

Decreased	*Normal*	*Increased*
39.17 Cholesterol	**9.13 Hematocrit**	**30.00 Bilirubin, Total**
	8.97 Hemoglobin	**58.82 Glucose**
		34.00 Iron, Total
		52.12 Triglycerides
		n/a Ferritin

Syndrome X () 75.00% (3 of 4)

Decreased	*Normal*	*Increased*
-5.81 HDL-Cholesterol		**58.82 Glucose**
		52.12 Triglycerides
		88.24 LDL

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

Decreased	*Normal*	*Increased*
n/a Triiodothyronine	**-20.00 Thyroxine (T4)**	**112.86 Ultra-Sensitive TSH**

Comparison Progress Report

Frank **Blood Test Date: 2/21/2008**

Male / Age: 64

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

Status % on:	4/12/2006		2/21/2008		+/- change
Triglycerides	**131.88**	**H**	**52.12**	**H**	**+ 79.76**
Albumin	**41.67**	**H**	10.00		+ 31.67
Cholesterol	**70.00**	**H**	**39.17**	**H**	**+ 30.83**
Sodium	**-34.62**	**L**	-4.55		+ 30.07
Hemoglobin	**34.44**	**H**	8.97		+ 25.47
Eosinophil Count	-11.20		**96.60**	**H**	**- 85.40**
Eosinophils	7.14		**87.50**	**H**	**- 80.36**
A/G Ratio	-4.23		**61.90**	**H**	**- 57.67**
T-3 Uptake	23.33		**73.08**	**H**	**- 49.74**
Globulin	-10.00		**-50.00**	**L**	**- 40.00**
Creatinine	**30.00**	**H**	**61.25**	**H**	**- 31.25**
Iron, Total	3.91		**34.00**	**H**	**- 30.09**
Bilirubin, Total	-4.55		**30.00**	**H**	**- 25.45**

Comparison Report

Frank **Blood Test Date: 2/21/2008**

Male / Age: 64

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:	4/12/2006		2/21/2008	
-4.23 → **61.90**	-	A/G Ratio	-4.23		**61.90**	**H**
10.00 ← **41.67**	+	Albumin	**41.67**	**H**	10.00	
-32.67 ← -17.20	-	Alkaline Phosphatase	-17.20		**-32.67**	**L**
		Anion Gap	-5.00		5.00	
-11.11 ← 2.38	-	B.U.N.	2.38		-11.11	
-24.55 ← -16.80	-	B.U.N./Creatinine Ratio	-16.80		-24.55	
-36.80 ← -19.50	-	Basophil Count	-19.50		**-36.80**	**L**
-30.00 ← -16.67	-	Basophils	-16.67		**-30.00**	**L**
-4.55 → **30.00**	-	Bilirubin, Total	-4.55		**30.00**	**H**
		Calcium	2.38		-6.25	
10.91 → 20.00	-	Calcium/Phosphorus Ratio	10.91		20.00	
3.85 → 16.67	-	Chloride	3.85		16.67	
39.17 ← **70.00**	+	Cholesterol	**70.00**	**H**	**39.17**	**H**
-25.00 ← -8.33	-	CO2	-8.33		**-25.00**	**L**
30.00 → **61.25**	-	Creatinine	**30.00**	**H**	**61.25**	**H**
-11.20 → **96.60**	-	Eosinophil Count	-11.20		**96.60**	**H**
7.14 → **87.50**	-	Eosinophils	7.14		**87.50**	**H**
-12.82 ← 0.77	-	GGT	0.77		-12.82	
-50.00 ← -10.00	-	Globulin	-10.00		**-50.00**	**L**
44.12 → **58.82**	-	Glucose	**44.12**	**H**	**58.82**	**H**
-17.44 → -5.81	+	HDL-Cholesterol	-17.44		-5.81	
9.13 ← **25.00**	+	Hematocrit	**25.00**	**H**	9.13	
8.97 ← **34.44**	+	Hemoglobin	**34.44**	**H**	8.97	
3.91 → **34.00**	-	Iron, Total	3.91		**34.00**	**H**
-40.77 ← -16.00	-	LDH	-16.00		**-40.77**	**L**
		LDL	**95.59**	**H**	**88.24**	**H**
		Lymphocyte Count	**-27.30**	**L**	**-25.93**	**L**
		Lymphocytes	-16.67		-23.53	
		MCH	23.57		**29.09**	**H**
5.41 ← **26.34**	+	MCHC	**26.34**	**H**	5.41	
		MCV	15.09		20.89	
		Monocyte Count	-18.00		-10.67	
		Monocytes	-5.56		7.69	
		Neutrophil Count	-20.98		-13.99	
		Neutrophils	-6.00		-4.52	
-20.00 ← -10.00	-	Phosphorus	-10.00		-20.00	
		Potassium	-5.00		11.11	
-30.95 ← 6.00	-	Protein, Total	6.00		**-30.95**	**L**
		R.B.C.	14.67		-11.88	
-28.79 ← -5.00	-	sGOT	-5.00		**-28.79**	**L**
-29.49 ← -17.27	-	sGPT	-17.27		**-29.49**	**L**
-34.62 → -4.55	+	Sodium	**-34.62**	**L**	-4.55	
23.33 → **73.08**	-	T-3 Uptake	23.33		**73.08**	**H**
		Thyroxine (T4)	-15.33		-20.00	
52.12 ← **131.88**	+	Triglycerides	**131.88**	**H**	**52.12**	**H**
104.86 → **112.86**	-	Ultra-Sensitive TSH	**104.86**	**H**	**112.86**	**H**
24.14 → **32.22**	-	Uric Acid	24.14		**32.22**	**H**
-17.69 → -10.00	+	W.B.C.	-17.69		-10.00	
		Total Status Deviation	**22.35**		**29.73**	
		Total Status Skew	**6.73**		**8.77**	

Panel/Subset Comparison Report

Frank
Male / Age: 64

Blood Test Date: 2/21/2008

Adrenal Function	4/12/2006		2/21/2008		+/-
Cholesterol	**70.00**	**H**	**39.17**	**H**	+
Eosinophils	7.14		**87.50**	**H**	-
Eosinophil Count	-11.20		**96.60**	**H**	-
Potassium	-5.00		11.11		
Sodium	**-34.62**	**L**	-4.55		+
PSS / PSD	5.27 / 25.59		45.97 / 47.78		

Allergy	4/12/2006		2/21/2008		+/-
Eosinophils	7.14		**87.50**	**H**	-
Globulin	-10.00		**-50.00**	**L**	-
Lymphocytes	-16.67		-23.53		
Monocytes	-5.56		7.69		
W.B.C.	-17.69		-10.00		+
PSS / PSD	-8.55 / 11.41		2.33 / 35.74		

Anti Oxidant Status	4/12/2006		2/21/2008		+/-
Anion Gap	-5.00		5.00		
Bilirubin, Total	-4.55		**30.00**	**H**	-
Chloride	3.85		16.67		-
Cholesterol	**70.00**	**H**	**39.17**	**H**	+
Glucose	**44.12**	**H**	**58.82**	**H**	-
Iron, Total	3.91		**34.00**	**H**	-
PSS / PSD	18.72 / 21.90		30.61 / 30.61		

Athletic Potential	4/12/2006		2/21/2008		+/-
B.U.N./Creatinine Ratio	-16.80		-24.55		-
Cholesterol	**70.00**	**H**	**39.17**	**H**	+
CO2	-8.33		**-25.00**	**L**	-
Creatinine	**30.00**	**H**	**61.25**	**H**	-
LDH	-16.00		**-40.77**	**L**	-
Potassium	-5.00		11.11		
Protein, Total	6.00		**-30.95**	**L**	-
Sodium	**-34.62**	**L**	-4.55		+
HDL-Cholesterol	-17.44		-5.81		+
PSS / PSD	0.87 / 22.69		-2.23 / 27.02		

Bone/Joint	4/12/2006		2/21/2008		+/-
Albumin	**41.67**	**H**	10.00		+
Alkaline Phosphatase	-17.20		**-32.67**	**L**	-
Calcium	2.38		-6.25		
Neutrophils	-6.00		-4.52		
Phosphorus	-10.00		-20.00		-
Protein, Total	6.00		**-30.95**	**L**	-
Uric Acid	24.14		**32.22**	**H**	-
PSS / PSD	5.86 / 15.34		-7.45 / 19.52		

Panel/Subset Comparison Report

Frank
Male / Age: 64

Blood Test Date: 2/21/2008

Cardiac Marker	4/12/2006		2/21/2008		+/-
Cholesterol	**70.00**	H	**39.17**	H	+
GGT	0.77		-12.82		-
Iron, Total	3.91		**34.00**	H	-
LDH	-16.00		**-40.77**	L	-
sGOT	-5.00		**-28.79**	L	-
Triglycerides	**131.88**	H	**52.12**	H	+
Uric Acid	24.14		**32.22**	H	-
HDL-Cholesterol	-17.44		-5.81		+
LDL	**95.59**	H	**88.24**	H	
PSS / PSD	31.98 / 40.53		17.51 / 37.10		

Cellular Distortions	4/12/2006		2/21/2008		+/-
Alkaline Phosphatase	-17.20		**-32.67**	L	-
Anion Gap	-5.00		5.00		
GGT	0.77		-12.82		-
Iron, Total	3.91		**34.00**	H	-
LDH	-16.00		**-40.77**	L	-
Neutrophils	-6.00		-4.52		
W.B.C.	-17.69		-10.00		+
PSS / PSD	-8.17 / 9.51		-8.83 / 19.97		

Differential	4/12/2006		2/21/2008		+/-
Basophils	-16.67		**-30.00**	L	-
Eosinophils	7.14		**87.50**	H	-
Lymphocytes	-16.67		-23.53		
Monocytes	-5.56		7.69		
Neutrophils	-6.00		-4.52		
PSS / PSD	-7.55 / 10.41		7.43 / 30.65		

Differential Count	4/12/2006		2/21/2008		+/-
Basophil Count	-19.50		**-36.80**	L	-
Eosinophil Count	-11.20		**96.60**	H	-
Lymphocyte Count	**-27.30**	L	**-25.93**	L	
Monocyte Count	-18.00		-10.67		
Neutrophil Count	-20.98		-13.99		
PSS / PSD	-19.40 / 19.40		1.84 / 36.80		

Electrolyte	4/12/2006		2/21/2008		+/-
Calcium	2.38		-6.25		
Chloride	3.85		16.67		-
CO2	-8.33		**-25.00**	L	-
Phosphorus	-10.00		-20.00		-
Potassium	-5.00		11.11		
Sodium	**-34.62**	L	-4.55		+
PSS / PSD	-8.62 / 10.70		-4.67 / 13.93		

Panel/Subset Comparison Report

Frank
Male / Age: 64

Blood Test Date: 2/21/2008

Gastrointest. Function	4/12/2006		2/21/2008		+/-
Anion Gap	-5.00		5.00		
Chloride	3.85		16.67		-
Cholesterol	**70.00**	**H**	**39.17**	**H**	+
CO2	-8.33		**-25.00**	**L**	-
Monocytes	-5.56		7.69		
Potassium	-5.00		11.11		
Sodium	**-34.62**	**L**	-4.55		+
Triglycerides	**131.88**	**H**	**52.12**	**H**	+
LDL	**95.59**	**H**	**88.24**	**H**	
PSS / PSD	26.98 / 39.98		21.16 / 27.73		

Hematology	4/12/2006		2/21/2008		+/-
Hematocrit	**25.00**	**H**	9.13		+
Hemoglobin	**34.44**	**H**	8.97		+
MCH	23.57		**29.09**	**H**	
MCHC	**26.34**	**H**	5.41		+
MCV	15.09		20.89		
R.B.C.	14.67		-11.88		
W.B.C.	-17.69		-10.00		+
PSS / PSD	17.35 / 22.40		7.37 / 13.62		

Inflammatory Process	4/12/2006		2/21/2008		+/-
Eosinophils	7.14		**87.50**	**H**	-
Globulin	-10.00		**-50.00**	**L**	-
LDH	-16.00		**-40.77**	**L**	-
Neutrophils	-6.00		-4.52		
Potassium	-5.00		11.11		
sGOT	-5.00		**-28.79**	**L**	-
sGPT	-17.27		**-29.49**	**L**	-
Triglycerides	**131.88**	**H**	**52.12**	**H**	+
Uric Acid	24.14		**32.22**	**H**	-
LDL	**95.59**	**H**	**88.24**	**H**	
PSS / PSD	19.95 / 31.80		11.76 / 42.48		

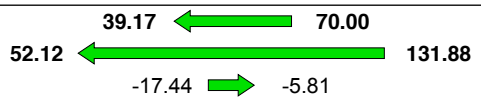
Kidney Function	4/12/2006		2/21/2008		+/-
Albumin	**41.67**	**H**	10.00		+
B.U.N.	2.38		-11.11		-
B.U.N./Creatinine Ratio	-16.80		-24.55		-
Chloride	3.85		16.67		-
CO2	-8.33		**-25.00**	**L**	-
Creatinine	**30.00**	**H**	**61.25**	**H**	-
Glucose	**44.12**	**H**	**58.82**	**H**	-
Potassium	-5.00		11.11		
Protein, Total	6.00		**-30.95**	**L**	-
Sodium	**-34.62**	**L**	-4.55		+
PSS / PSD	6.33 / 19.28		6.17 / 25.40		

Panel/Subset Comparison Report

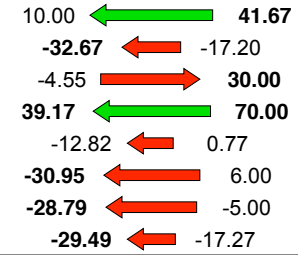
Frank
Male / Age: 64

Blood Test Date: 2/21/2008

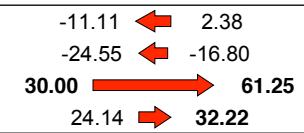
Lipid	4/12/2006		2/21/2008		+/-
Cholesterol	**70.00**	**H**	**39.17**	**H**	+
Triglycerides	**131.88**	**H**	**52.12**	**H**	+
HDL-Cholesterol	-17.44		-5.81		+
LDL	**95.59**	**H**	**88.24**	**H**	
PSS / PSD	70.01 / 78.73		43.43 / 46.33		



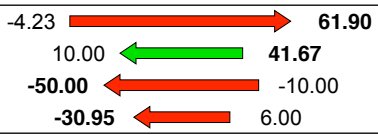
Liver Function	4/12/2006		2/21/2008		+/-
Albumin	**41.67**	**H**	10.00		+
Alkaline Phosphatase	-17.20		**-32.67**	**L**	-
Bilirubin, Total	-4.55		**30.00**	**H**	-
Cholesterol	**70.00**	**H**	**39.17**	**H**	+
GGT	0.77		-12.82		-
Protein, Total	6.00		**-30.95**	**L**	-
sGOT	-5.00		**-28.79**	**L**	-
sGPT	-17.27		**-29.49**	**L**	-
PSS / PSD	9.30 / 20.31		-6.94 / 26.74		



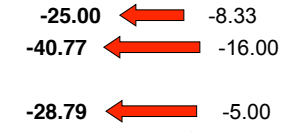
Nitrogen	4/12/2006		2/21/2008		+/-
B.U.N.	2.38		-11.11		-
B.U.N./Creatinine Ratio	-16.80		-24.55		-
Creatinine	**30.00**	**H**	**61.25**	**H**	-
Uric Acid	24.14		**32.22**	**H**	-
PSS / PSD	9.93 / 18.33		14.45 / 32.28		



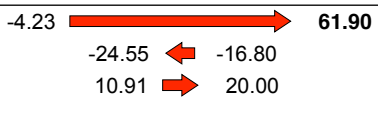
Protein	4/12/2006		2/21/2008		+/-
A/G Ratio	-4.23		**61.90**	**H**	-
Albumin	**41.67**	**H**	10.00		+
Globulin	-10.00		**-50.00**	**L**	-
Protein, Total	6.00		**-30.95**	**L**	-
PSS / PSD	9.50 / 15.19		-2.26 / 38.21		



Pulmonary Function	4/12/2006		2/21/2008		+/-
Anion Gap	-5.00		5.00		
Calcium	2.38		-6.25		
CO2	-8.33		**-25.00**	**L**	-
LDH	-16.00		**-40.77**	**L**	-
Potassium	-5.00		11.11		
sGOT	-5.00		**-28.79**	**L**	-
Sodium	**-34.62**	**L**	-4.55		+
PSS / PSD	-10.22 / 10.90		-12.75 / 17.35		



Ratios	4/12/2006		2/21/2008		+/-
A/G Ratio	-4.23		**61.90**	**H**	-
B.U.N./Creatinine Ratio	-16.80		-24.55		-
Calcium/Phosphorus Ratio	10.91		20.00		-
Sodium/Potassium Ratio	-7.20		-13.04		
PSS / PSD	-0.65 / 10.64		11.08 / 29.87		



Panel/Subset Comparison Report

Frank **Blood Test Date: 2/21/2008**

Male / Age: 64

Thyroid	4/12/2006		2/21/2008		+/-	
Thyroxine (T4)	-15.33		-20.00			
T-3 Uptake	23.33		**73.08**	**H**	-	23.33 → **73.08**
Ultra-Sensitive TSH	**104.86**	**H**	**112.86**	**H**	-	**104.86** → **112.86**
PSS / PSD	24.50 / 39.60		43.98 / 53.98			