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A Person

Date: 3/12/2008

Next Test Due: 9/10/2008

LabAssist™ Foundational Wellness Profile Report

Practitioner

Printed on Monday, September 1, 2008 for:

Integrative Health Care

Dr. Able Insight

Anytown, USA 12345

775-555-5555

775-555-1212 (fax)

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

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Basic Status High/Low - Plasma Amino Acid on 3/12/2008

A Person

Female / Age: 46

Client ID: (22728)

Foundational Wellness Profile Date: 3/12/2008

Integrative Health Care (6087)

Dr. Able Insight

775-555-5555

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

Low Results

-80	-60	-40	-20	0		% Status	Result	Low	High	
						-54.00	L	24.00	25.00	50.00
						-53.14	L	13.27	15.00	70.00
						-52.14	L	42.75	45.00	150.00
						-51.50	L	47.00	50.00	250.00
						-51.21	L	245.76	250.00	600.00
						-50.00	L	35.00	35.00	65.00
						-48.57	L	71.00	70.00	140.00
						-48.22	L	229.00	225.00	450.00
						-48.11	L	46.80	45.00	140.00
						-47.78	L	52.44	50.00	160.00
						-46.80	L	178.00	170.00	420.00
						-45.83	L	7.00	6.00	30.00
						-44.71	L	1.58	1.50	3.00
						-41.88	L	58.93	50.00	160.00
						-41.24	L	99.64	90.00	200.00
						-40.67	L	64.00	50.00	200.00
						-40.00	L	2.00	0.00	20.00
						-38.19	L	55.04	45.00	130.00
						-29.53	L	185.26	130.00	400.00

-25%

High Results

-25	0	25	50	75		% Status	Result	Low	High	
						65.00	H	102.00	10.00	90.00
						50.00	H	1.00	0.00	1.00
						50.00	H	1.00	0.00	1.00
						37.50	H	7.00	0.00	8.00

-25% 25%

Basic Status High/Low - Blood Test on 3/12/2008

A Person

Foundational Wellness Profile Date: 3/12/2008

Female / Age: 46

Integrative Health Care (6087)

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

Low Results

-80	-60	-40	-20	0		% Status	Result	Low	High	
						-50.00	L	0.00	0.00	200.00
						-50.00	L	0.00	0.00	2.00
						-44.67	L	4.90	4.50	12.00
						-32.86	L	49.00	25.00	165.00
						-30.53	L	2968.00	1800.00	7800.00
						-30.00	L	3.90	3.50	5.50
						-30.00	L	5.30	4.00	10.50
						-26.67	L	2.20	1.50	4.50
						-26.58	L	1590.00	700.00	4500.00

-25%

High Results

-25	0	25	50	75		% Status	Result	Low	High	
						61.11	H	100.00	80.00	98.00
						50.00	H	4.80	3.50	4.80
						50.00	H	7.00	0.00	7.00
						42.75	H	371.00	0.00	400.00
						41.18	H	96.00	65.00	99.00
						40.48	H	33.33	27.00	34.00
						39.29	H	2.35	1.10	2.50
						30.00	H	42.00	34.00	44.00
						27.86	H	119.00	10.00	150.00
						27.27	H	2.18	1.10	2.50
						26.92	H	106.00	96.00	109.00
						25.86	H	6.80	2.40	8.20

-25%

25%

Basic Status Alphabetic - Blood Test on 3/12/2008

A Person

Foundational Wellness Profile Date: 3/12/2008

Female / Age: 46

Integrative Health Care (6087)

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

-100	-50	0	50	100	% Status	Result	Low	High
					A/G Ratio	27.27 H	2.18	1.10 2.50
					Albumin	50.00 H	4.80	3.50 4.80
					Alkaline Phosphatase	-32.86 L	49.00	25.00 165.00
					Anion Gap	9.00	13.90	8.00 18.00
					B.U.N.	2.38	16.00	5.00 26.00
					B.U.N./Creatinine Ratio	2.63	16.00	6.00 25.00
					Basophil Count	-50.00 L	0.00	0.00 200.00
					Basophils	-50.00 L	0.00	0.00 2.00
					Bilirubin, Total	-4.55	0.60	0.10 1.20
					Calcium	-11.90	9.30	8.50 10.60
					Calcium/Phosphorus Ratio	-14.29	2.66	2.30 3.30
					Chloride	26.92 H	106.00	96.00 109.00
					Cholesterol	-7.50	191.00	140.00 260.00
					CO2	-11.54	25.00	20.00 33.00
					Creatinine	0.00	1.00	0.50 1.50
					Eosinophil Count	42.75 H	371.00	0.00 400.00
					Eosinophils	50.00 H	7.00	0.00 7.00
					Free T4 Index (T7)	-12.16	2.60	1.20 4.90
					GGT	8.06	22.00	4.00 35.00
					Globulin	-26.67 L	2.20	1.50 4.50
					Glucose	41.18 H	96.00	65.00 99.00
					HDL-Cholesterol	2.00	61.00	35.00 85.00
					Hematocrit	30.00 H	42.00	34.00 44.00
					Hemoglobin	21.43	14.00	11.50 15.00
					Iron, Total	2.50	98.00	35.00 155.00
					LDH	-3.33	170.00	100.00 250.00
					LDL	14.71	106.00	62.00 130.00
					Lymphocyte Count	-26.58 L	1590.00	700.00 4500.00
					Lymphocytes	0.00	30.00	14.00 46.00
					MCH	40.48 H	33.33	27.00 34.00
					MCHC	-16.67	33.33	32.00 36.00
					MCV	61.11 H	100.00	80.00 98.00
					Monocyte Count	-19.89	371.00	100.00 1000.00
					Monocytes	-16.67	7.00	4.00 13.00
					Neutrophil Count	-30.53 L	2968.00	1800.00 7800.00
					Neutrophils	-2.94	56.00	40.00 74.00
					Phosphorus	0.00	3.50	2.50 4.50
					Potassium	-30.00 L	3.90	3.50 5.50
					Protein, Total	-10.00	7.00	6.00 8.50
					R.B.C.	-19.23	4.20	3.80 5.10
					sGOT	-18.75	18.00	8.00 40.00
					sGPT	-11.29	16.00	4.00 35.00
					Sodium	-3.85	141.00	135.00 148.00
					T-3 Uptake	10.00	33.00	24.00 39.00
					Thyroxine (T4)	-44.67 L	4.90	4.50 12.00
					Triglycerides	27.86 H	119.00	10.00 150.00
					Ultra-Sensitive TSH	39.29 H	2.35	1.10 2.50
					Uric Acid	25.86 H	6.80	2.40 8.20
					W.B.C.	-30.00 L	5.30	4.00 10.50
					Total Status Deviation	21.52		
					Total Status Skew	1.28		

Client Summary Review

A Person

Female / Age: 46

Foundational Wellness Profile Date: 3/12/2008

Integrative Health Care (6087)

Nutritional Support

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

- | | |
|--|---|
| <input type="checkbox"/> 1-Antioxidant Complex
See Nutrition Detail | <input type="checkbox"/> 1-CAC Entry Protocol
See Nutrition Detail |
| <input type="checkbox"/> 1-Digestive Enzymes
With meals | <input type="checkbox"/> 1-Oral Electrolyte - Stress Formula
2x daily |
| <input type="checkbox"/> 1-Vitamin B6
2x daily 50 mg | <input type="checkbox"/> 1-Vitamin E and Acai
2x daily 800 IU |
| <input type="checkbox"/> 1-Whey Protein
See Nutrition Detail | <input type="checkbox"/> 2-5-Hydroxytryptophan
2x daily 50 mg |
| <input type="checkbox"/> 2-Arginine
2x daily 500 mg (Contraindicated for Herpes sufferers) | <input type="checkbox"/> 2-Iodine
2x daily 75 mcg |
| <input type="checkbox"/> 3-5-Hydroxy-Tryptophan (5-HTP)
2x daily 50 mg | <input type="checkbox"/> H - Billberry
1 - 3 times daily |
| <input type="checkbox"/> H - Ginseng (Panax)
1 - 3 times daily | |

Nutritional Supplements to AVOID

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

H - Bayberry

H - Licorice

Molybdenum

Food Recommendations

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

Apricots, Dried	Artichoke	Avocado	Beets
Blackberries	Bok Choy Cabbage	Boysenberries	Broccoli
Cantaloupe	Casaba Melon	Fava Beans	Garbanzo Beans
Grapefruit	Green Beans	Guava	Haddock
Halibut	Honeydew Melon	Kale	Kidney Beans
Kiwi Fruit	Loganberries	Macadamia Nuts	Mozarella Cheese
Mushrooms	Navy Beans	Orange	Papaya
Parsley	Plantains	Potato Flour	Potatoes
Pumpkin	Red Peppers	Squash	Strawberries
Turkey	White Beans	Wild Rice	

Foods to AVOID

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

Coffee

Hydrogenated Fats

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
CAC Cycle Ratios	252.04%	228.39%
Carbohydrate Metabolism	83.85%	46.99%
Fatty Acid Metabolism	51.25%	30.23%
Detoxification Markers	47.03%	-19.49%
Hepatic Metabolism	41.34%	-3.44%
Essential Amino Acid	40.50%	-37.44%
Urea Cycle Metabolites	39.56%	-33.68%
Connective Tissue	37.90%	-9.15%
Fat Metabolism	36.69%	-31.65%
Neurotransmitters	35.81%	3.32%
Differential Count	33.95%	-16.85%
Gluconeogen	32.99%	-32.99%
Energy Production	32.91%	-3.02%
Hematology	31.27%	12.45%
Ammonia/Energy	30.55%	-28.03%
CNS Metabolism	30.08%	-16.27%
Intestinal Dysbiosis	29.01%	-7.28%
Protein	28.48%	10.15%
Immune Metabolites	27.88%	-19.06%
Neuroendocrine Metab	27.31%	-22.31%
Adrenal Function	26.82%	10.28%
Thyroid	26.53%	-1.89%
Liver Detox Indicators	25.04%	-8.72%

Lab Reported out-of-range Values

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

CA Cycle Entry (1062.24%)

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

CA Cycle Phase 6 (566.31%)

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.

Oxidative Damage (516.92%)

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

Bacteria2 (441.02%)

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

Lactate (249.63%)

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.

CA Cycle Phase 1 (185.39%)

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.

Ethylmalonate (122.23%)

Elevated in carnitine and riboflavin deficiency which may lead to the inability to oxidize long-chain fatty acids and amino acids. If adipate is also elevated may indicate severe fatty acid oxidation impairment.

CA Cycle Phase 5 (107.77%)

This phase of the citric acid cycle is the reaction caused by removing electrons from Succinate to form Fumarate. Co-Q10 deficiency may be responsible for an elevated ratio.

a-Ketoglutarate (95.25%)

High levels of this amino acid may be indicative of poor amino acid metabolism or a need for both B-complex and lipoic acid.

8-Hydroxy-2-deoxyguan (68.74%)

Elevations of this urine marker indicate an increased rate of oxidative damage to DNA. A regime of antioxidants as well as restricting fat intake has been suggested to be a way of lowering this component of aging.

Cystine (65.00%)

Cystine is the combination of two cysteine molecules combine. A sulfur amino acid, it is critical in the ability to detoxify the body. A high reading may indicate excessive supplementation with methionine, cystine, or N-acetylcysteine. Decreased renal clearance may also cause a high result. Excessive levels can be neurotoxic and adversely affect mental function.

MCV (61.11%)

The Mean Corpuscular Volume reflects the size of red blood cells by expressing the volume occupied by a single red blood cell. Increased readings may indicate macrocytic anemia, B6, B12 or Folic Acid deficiency, or excessive alcohol intake.

Drugs which may have an adverse affect:

Acyclovir, Carbamazepine, Colchicine, Hydroxyurea, Methotrexate, Neomycin, Phenobarbital, Phenytoin, Triameterene

Xanthurenate (59.20%)

A high reading of this by-product of the breakdown of the amino acid tryptophan is consistent with a vitamin B6 deficiency.

Sulfate (-58.93%)

A low result may indicate that Phase II liver detoxification may be impaired. If pyroglutamate and a-hydroxybutyrate are also elevated, this indicates a late stage of glutathione depletion.

Drugs which may have an adverse affect:

Acetaminophen

Methionine (-54.00%)

An essential amino acid, you can only get methionine from dietary or supplemental sources. It is important that adequate vitamin B6, folate and B12 as well as magnesium. is available, otherwise methionine may over convert to homocysteine and throw arginine and/or ornithine out of balance. Low plasma levels may be indicative of poor dietary intake of protein, poor quality of protein or gastrointestinal dysfunction. May adversely effect sulfur metabolism. Symptoms of low levels include headaches, fatigue, occlusive arterial disease, biliary insufficiency, myopia and skeletal disorders.

cis-Aconitate (-53.59%)

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

Citrulline (-53.14%)

No information available.

Glutamic Acid (-52.14%)

Glutamic acid is considered an excitatory neurotransmitter. It is critical in removing excess ammonia from the brain as well as helping deal with symptoms such as headache, irritability, and fatigue. A low plasma level of glutamic acid may be indicative of hyperammonemia especially if high glutamine is present.

Taurine (-51.50%)

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

Alanine (-51.21%)

Alanine is considered a non-essential amino acid which is derived from the conversion of the carbohydrate pyruvate and the breakdown of DNA and/or carnosine and anserine. Depressed levels may be found in individuals with low branched chain amino acids (BCAA). May be indicative of hypoglycemia. More often than not, low results of this amino acid is due to poor dietary habits or protein malnutrition.

Kynurenate (50.36%)

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

Albumin (50.00%)

Albumin is the major constituent of serum protein (usually over 50%). It is manufactured by the liver from the amino acids taken through the diet. It helps in osmotic pressure regulation, nutrient transport, and waste removal. High levels are seen in liver disease, shock, dehydration, or multiple myeloma.

Drugs which may have an adverse affect:

Acetaminophen, Carbamazepine, Furosemide, Phenobarbital, Progesterone, Progestins

Bacteria Markers (-50.00%)

A low reading is consistent with healthy gut flora.

Basophil Count (-50.00%)

Basophil cells are a type of white blood cell linked to allergic reactions. Low readings are common and are not considered to be clinically significant.

Basophils (-50.00%)

Basophil cells are a type of white blood cell linked to allergic reactions. Low readings are common and are not considered to be clinically significant.

Drugs which may have an adverse affect:

Procainamide

Eosinophils (50.00%)

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

Homocystine (50.00%)

This may be indicative of a higher risk of coronary heart disease (atherosclerosis), neurological, ocular, or musculo-skeletal disorders.

Drugs which may have an adverse affect:

Methotrexate

Hydroxylysine (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.

Tryptophan (-50.00%)

Tryptophan metabolism requires B6, folic acid, and magnesium. Also, niacin and glutamine are important requirements for normal metabolism. Niacin can be made from tryptophan. A low result may be indicative of depression and insomnia. Low readings may be due to poor dietary protein intake or intestinal malabsorption. If dietary intake is adequate, consider a comprehensive stool analysis.

Drugs which may have an adverse affect:

Aspirin

Additional Tests

The following additional lab tests may help in diagnosis.

Consider ordering serum B12, serum folate and free T4 index.

Rationale: % Status of MCV is > 50%

Review patient's Zinc status

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

Nutrition - Detail

A Person

Female / Age: 46

Foundational Wellness Profile Date: 3/12/2008

Integrative Health Care (6087)

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-Antioxidant Complex See Nutrition Detail

ANTIOXIDANT PROTOCOL

When certain oxidative test markers appear, the following protocol can be followed: a Broad Spectrum Antioxidant which should include CoEnzyme Q10 (2 times daily, Vitamins A and E as well as Selenium (2 times daily) and Vitamin C (1000 mg 2 times daily).

Vitamin E should only be consumed with the advice of a physician if currently taking Coumadin or other blood thinning medications.

COENZYME Q10

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

VITAMIN A/MIXED-CAROTENES

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

VITAMIN E

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

SELENIUM (Se)

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

VITAMIN C

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

Decreased

Rationale

Normal

Increased

Oxidative Damage

1-CAC Entry Protocol See Nutrition Detail

CAC ENTRY PROTOCOL

When the entry point to the citric acid cycle is blocked, the ability to utilize carbohydrates to produce energy is impaired. The following protocol may be helpful in bringing down this ratio.

B-Complex - 2x daily

Amino Acid Complex - 5 grams 2x daily

CoEnzyme Q10 - 50 mg 2x daily

Alpha Lipoic Acid - 200 mg 2x daily

Vitamin C - 1000 mg 2x daily

For children between 6-18

B-Complex - 1x daily

CoEnzyme Q10 - 25 mg daily

Vitamin C - 500 mg daily

Amino Acid Complex - 5 grams daily

For children under the age of 6:

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

Vitamin C - 125 mg 2x daily

CoEnzyme Q10 - 12.5 mg daily

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

Decreased

Normal

Increased

CA Cycle Entry

1-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-Oral Electrolyte - Stress Formula 2x daily

ORAL ELECTROLYTE

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

Decreased

Normal

Increased

Potassium

Sodium

Nutrition - Detail

A Person

Female / Age: 46

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1-Vitamin B6 2x daily 50 mg

PYRIDOXINE (B6)

B6 function involves many complex interrelated functions around amino acid metabolism. Cell processes involve PLP in immune modulation, fatty acids, steroid hormone, receptors, neurotransmitters, gluconeogenesis, and heme synthesis. Fat and transport of long-chain essential fatty acids as well as being cardiac protective. Kynurenate is a strong marker for Vitamin B6 deficiency.

Decreased

Rationale

Normal

Increased

Kynurenate
Xanthurenate

1-Vitamin E and Acai 2x daily 800 IU

VITAMIN E

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

8-Hydroxy-2-deoxyguanosine elevation has been equated to excessive oxidative stress which would benefit from Vitamin E supplementation.

ACAI

Pronounced ah-sigh-ee, this berry found exclusively in the Amazon is considered the most potent antioxidant found in nature. It contains 13 different flavonoids and a broad spectrum of vitamins, minerals and fatty acids. Elevated urine cystine may be indicative of an increased level of inflammation.

Decreased

Normal

Increased

8-Hydroxy-2-deoxyguan

1-Whey Protein See Nutrition Detail

WHEY PROTEIN

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

Decreased

Normal

Increased

a-Hydroxybutyrate

Pyroglutamate

2-5-Hydroxytryptophan 2x daily 50 mg

5-HYDROXYTRYPTOPHAN

Serotonin is an important neurotransmitter made from the amino acid Tryptophan. 5-Hydroxyindoleacetate is a metabolite of serotonin so a low result of this organic acid may indicate a tryptophan deficiency.

Decreased

Normal

Increased

5-Hydroxyindoleacetate

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, somatostatin, growth hormone, prolactin, adrenal catecholamines and many other hormones. Stimulates wound healing.

Decreased

Normal

Increased

Arginine

Lysine

Ornithine

2-Iodine 2x daily 75 mcg

IODINE (I)

Iodine is an essential component of the thyroid hormones. Thyroxine, a main component of thyroid function, contains four iodine atoms.

Decreased

Normal

Increased

Thyroxine (T4)

T-3 Uptake

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

TRYPTOPHAN

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

Decreased

Normal

Increased

Tryptophan

Nutrition - Detail

A Person

Female / Age: 46

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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

Rationale

Normal

Iron, Total

Increased

Glucose
Triglycerides

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 H - **Bayberry**

BAYBERRY

The herb bayberry (*Myrica cerifera*) has been reported to be beneficial in improving circulation and enhancing the immune system as well as treating hypothyroidism. As with all herbs, caution should be taken with its use. It is contraindicated in low potassium and may elevate blood pressure.

Decreased

Normal

Increased

Potassium

AVOID H - **Licorice**

LICORICE

Licorice (*Glycyrrhiza glabra*) is contraindicated in instances of low potassium and hypertension.

Decreased

Normal

Increased

Potassium

AVOID **Molybdenum**

MOLYBDENUM (Mo)

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

Decreased

Normal

Increased

Uric Acid

Drug Interactions

A Person

Foundational Wellness Profile Date: 3/12/2008

Female / Age: 46

Integrative Health Care (6087)

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

Panel/Subset Report

A Person

Female / Age: 46

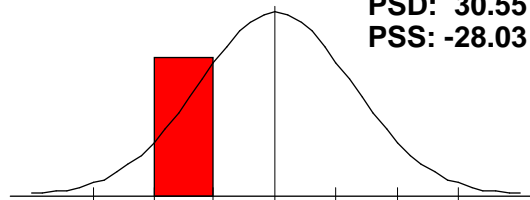
Foundational Wellness Profile Date: 3/12/2008

Integrative Health Care (6087)

Ammonia/Energy

Arginine[L], Threonine, Glycine[L], Serine, a-Aminoadipic Acid, Asparagine[L], Aspartic Acid[L], Citrulline[L], Glutamic Acid[L], Glutamine,.

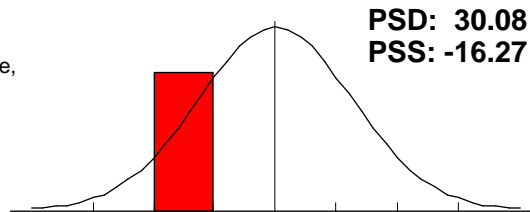
A panel profile such as this may be indicative of inadequate protein intake, poor absorption or poor quality protein intake.



CNS Metabolism

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

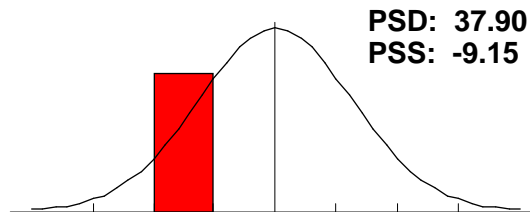
The panel profile seen here may be indicative of poor central nervous system functioning including memory loss, fatigue, poor concentration.



Connective Tissue

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

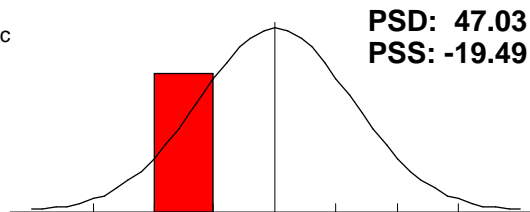
A profile such as this may be indicative of poor collagen and other tissue formation.



Detoxification Markers

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

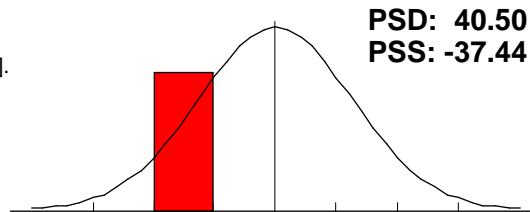
This panel contains amino acids critical for proper detoxification. A low reading may be indicative of an inability to properly detoxify. Personalized supplementation is suggested.



Essential Amino Acid

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

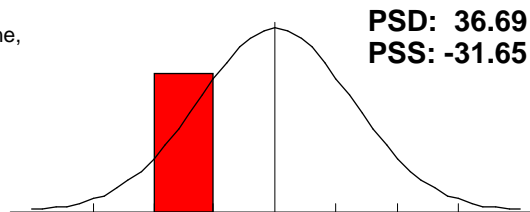
The panel profile seen here indicates a low density of essential amino acids. Since they cannot be synthesized in the human body, these building blocks must be taken in via diet or supplements.



Fat Metabolism

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

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

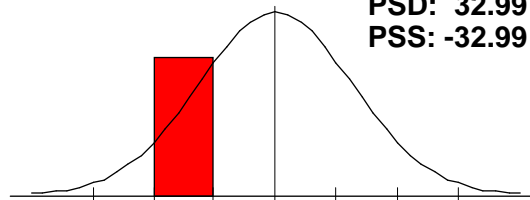


Gluconeogen

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

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

PSD: 32.99
PSS: -32.99

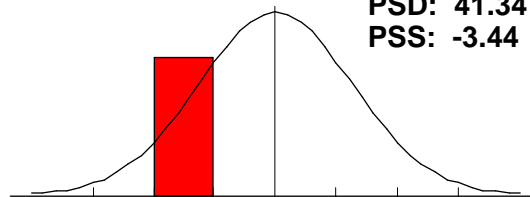


Hepatic Metabolism

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

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

PSD: 41.34
PSS: -3.44

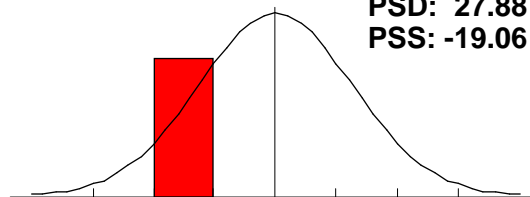


Immune Metabolites

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

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

PSD: 27.88
PSS: -19.06

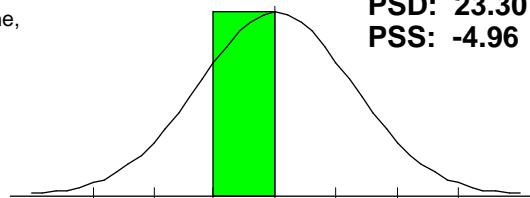


Magnesium Dependents

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

The amino acids in this panel are dependent on magnesium for their metabolism.

PSD: 23.30
PSS: -4.96

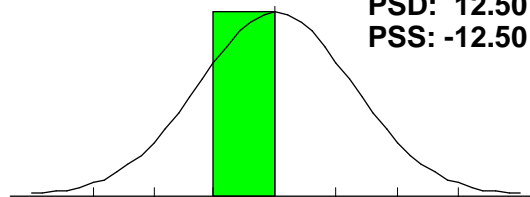


Muscle Metabolites

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

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

PSD: 12.50
PSS: -12.50

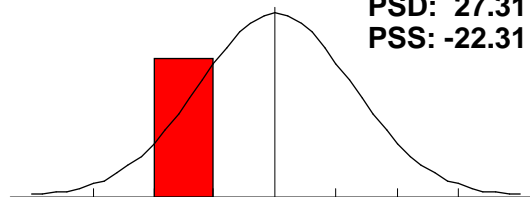


Neuroendocrine Metab

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

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

PSD: 27.31
PSS: -22.31



Panel/Subset Report

A Person

Foundational Wellness Profile Date: 3/12/2008

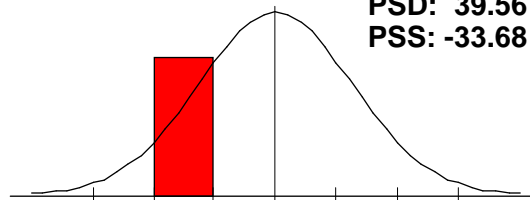
Female / Age: 46

Integrative Health Care (6087)

Urea Cycle Metabolites

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

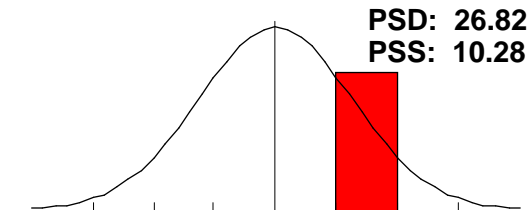
This panel contains amino acids that are related to the urea cycle which is an important metabolic process to remove excess ammonia from the system. Targeted and personalized supplementation is suggested.



Adrenal Function

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

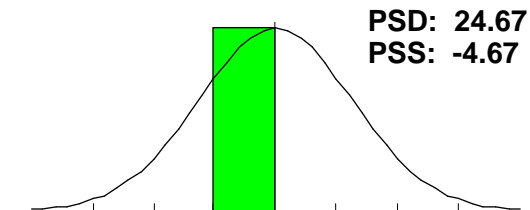
This profile may be in part due to poor nutritional habits, allergies and inadequate fluid intake. Clinical signs may include inability to handle stress, poor circulation, and fatigue.



Allergy

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

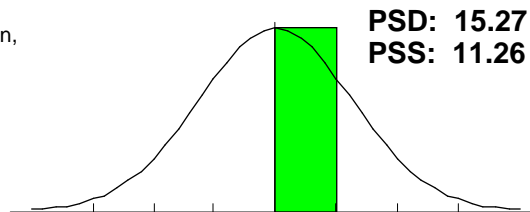
This panel is used to assess the individual's response to potential allergens. Abnormalities in this panel may indicate the need for additional allergy testing. The deviation was below 25% so no abnormalities were found.



Anti Oxidant Status

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

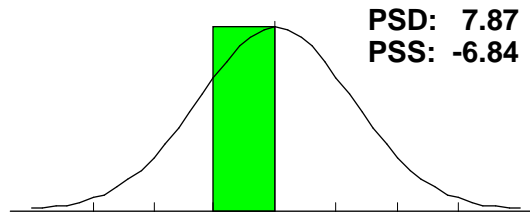
The elements in this panel help represent the antioxidant status of the individual. Excesses or deficiencies in this panel may indicate the need for additional antioxidants. The deviation was below 25% so no abnormalities were found.



Athletic Potential

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

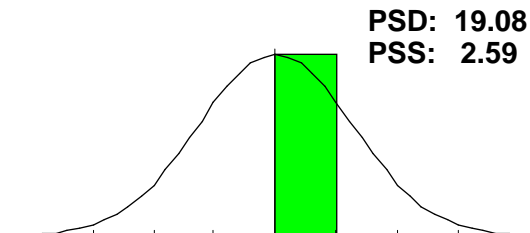
This panel is used to help assess athletic potential. Keeping this panel in a normal range may be helpful in improving athletic performance and reducing the risk of injury. The deviation was below 25% so no abnormalities were found.



Bone/Joint

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

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



Panel/Subset Report

A Person

Foundational Wellness Profile Date: 3/12/2008

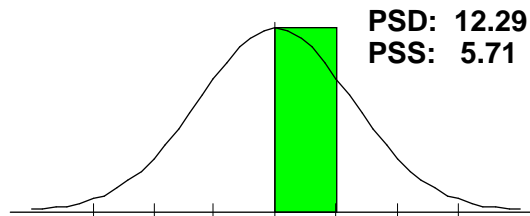
Female / Age: 46

Integrative Health Care (6087)

Cardiac Marker

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

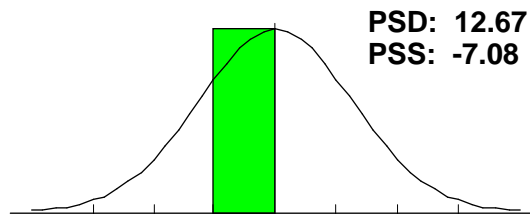
This panel may be helpful in assessing cardiovascular disease risk. Keeping the elements in this panel in a normal range is important in reducing the risk of CVD. The deviation was below 25% so no abnormalities were found.



Cellular Distortions

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

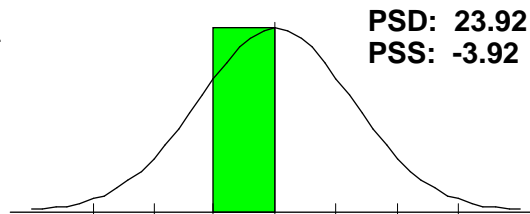
This panel may be helpful in determining the ability of the body to properly produce healthy cells. The deviation was below 25% so no abnormalities were found.



Differential

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

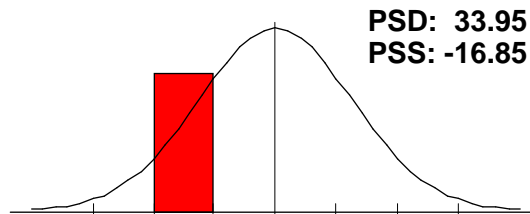
This panel may be helpful in assessing immune system health. Excesses or deficiencies in this panel may indicate a compromised immune system. The deviation was below 25% so no abnormalities were found.



Differential Count

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

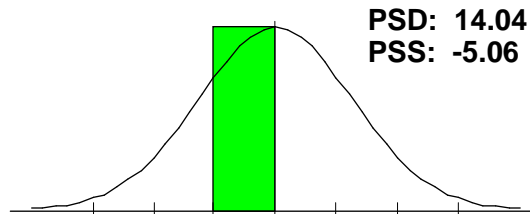
The negative Panel Status Skew may be due to the immune system being at rest if the Differential Panels Deviation is less than 25%, if it is higher than 25% then suspect a weakened or compromised immune system.



Electrolyte

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

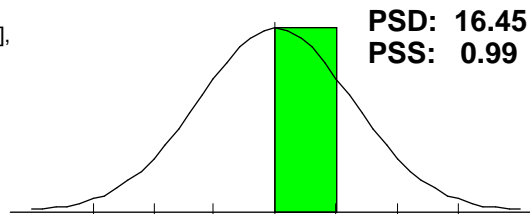
This panel is a representation of electrolyte balance in blood. Balance is critical in maintaining and achieving optimal health. The deviation was below 25% so no abnormalities were found.



Gastrointest. Function

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

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



Panel/Subset Report

A Person

Foundational Wellness Profile Date: 3/12/2008

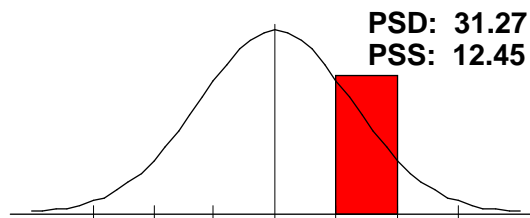
Female / Age: 46

Integrative Health Care (6087)

Hematology

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

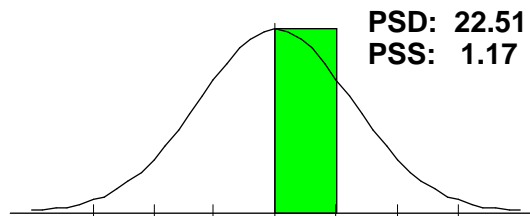
A profile such as this implies that you should suspect dehydration, living at high altitude, and genetic abnormalities (this list is not all-inclusive).



Inflammatory Process

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

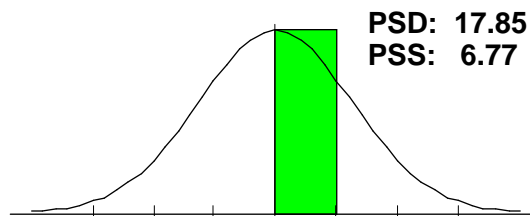
This panel may be helpful in assessing any inflammatory processes that may be occurring in the body. The deviation was below 25% so no abnormalities were found.



Kidney Function

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

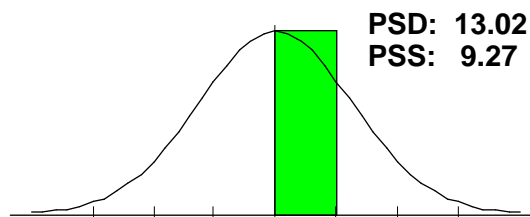
This panel may be helpful in assessing kidney function. It is important to keep the elements of this subset in balance to help the body eliminate waste material. The deviation was below 25% so no abnormalities were found.



Lipid

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

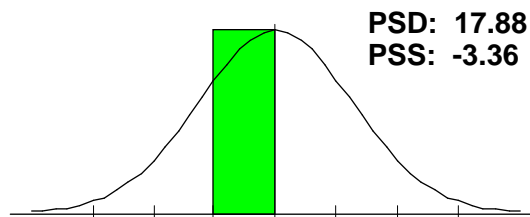
Lipid assessment is important in helping achieve optimal wellness as well as reducing cardiovascular disease risk. The deviation was below 25% so no abnormalities were found.



Liver Function

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

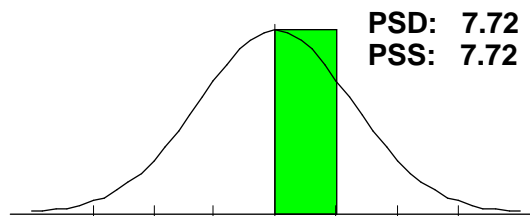
Assessing liver function is important in determining the individual's ability to detoxify itself as well as processing amino acids and other important biological processes. The deviation was below 25% so no abnormalities were found.



Nitrogen

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

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.



Panel/Subset Report

A Person

Female / Age: 46

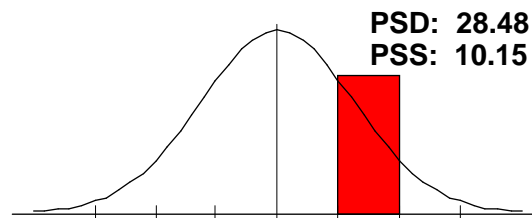
Foundational Wellness Profile Date: 3/12/2008

Integrative Health Care (6087)

Protein

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

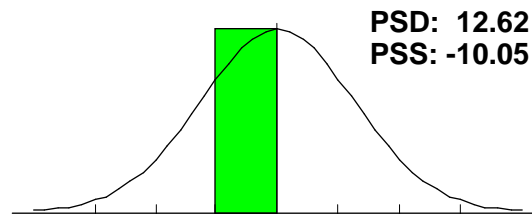
A panel profile such as this indicates that a careful review of the patient's dietary intake may be necessary as well as a review of potential immune responses, and liver disorders. Look for potential amino acid metabolism disorders.



Pulmonary Function

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

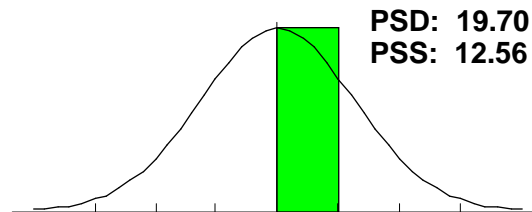
This panel may be helpful in assessing lung and respiratory function. The deviation was below 25% so no abnormalities were found.



Ratios

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

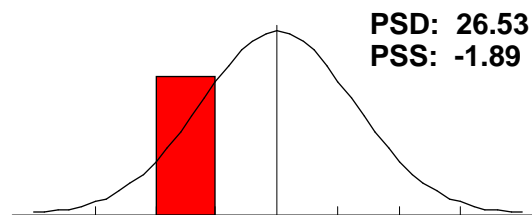
This panel may be helpful in determining the general balance of the overall chemistry of the individual. The deviation was below 25% so no abnormalities were found.



Thyroid

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

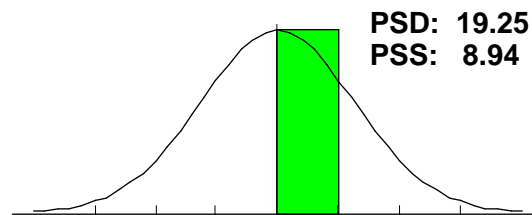
This profile may indicate the need for a careful review of the individual markers in order to determine causative factors.



B-Complex Markers

b-Hydroxyisovalerate, a-Ketoisovalerate, a-Ketoisocaproate, a-Keto-b-methylvalerate, Methylmalonate, Formiminoglutamic Acid, Xanthurenate[H].

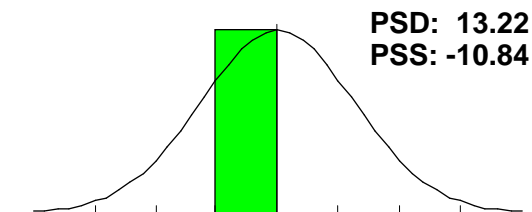
A normal panel profile such as this is an indicator of adequate intake of B-complex vitamins.



BCAA Catabolism

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

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



Panel/Subset Report

A Person

Foundational Wellness Profile Date: 3/12/2008

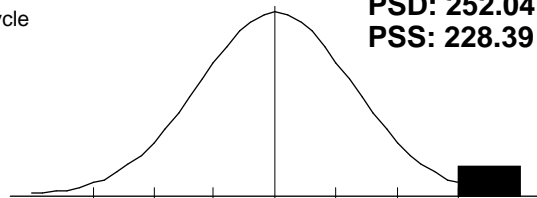
Female / Age: 46

Integrative Health Care (6087)

CAC Cycle Ratios

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

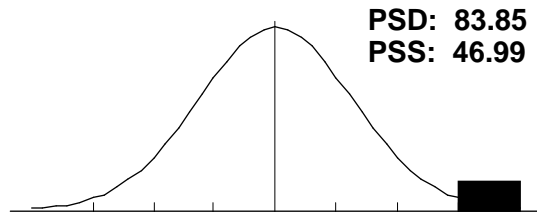
This panel reflects steps of the citric acid cycle. A high reading may be indicative of poor energy production and/or vitamin, mineral and amino acid deficiencies.



Carbohydrate Metabolism

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

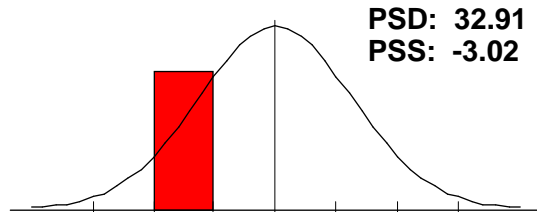
The panel profile seen here may be due to impaired carbohydrate metabolism, inefficient utilization or poor mobilization of carbohydrates. Often, B-complex vitamins are helpful in balancing these results. See Nutritional Support for further details.



Energy Production

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

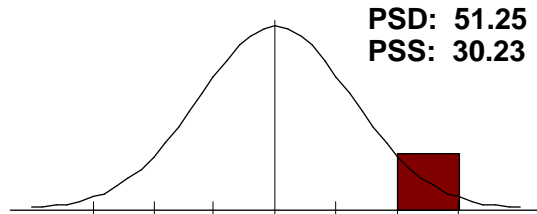
Low readings are typically desirable but if the CAC Cycle Ratios are abnormal, then consider adding a broad spectrum amino acid supplement.



Fatty Acid Metabolism

Adipate, Suberate, Ethylmalonate[H].

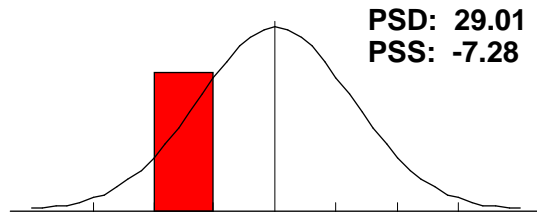
These urinary markers give us a picture into the metabolism of fatty acids. Elevated results are indicative of an abnormal metabolism of fatty acids and may indicate the need for additional carnitine and riboflavin. Careful review of fatty acid supplementation may be helpful as well.



Intestinal Dysbiosis

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

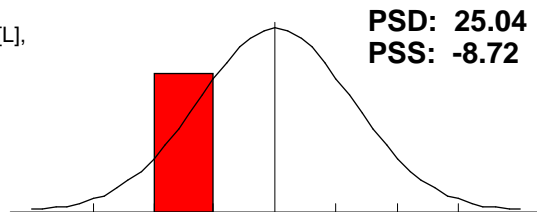
This profile is consistent with good intestinal health but further investigation may be necessary depending on clinical symptoms.



Liver Detox Indicators

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

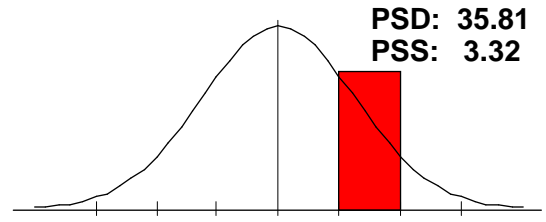
A panel profile such as this may indicate that the liver is inefficient in detoxification.



Neurotransmitters

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

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



Clinical Correlation

A Person

Foundational Wellness Profile Date: 3/12/2008

Female / Age: 46

Integrative Health Care (6087)

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.

Increased CVD risk ()

100.00% (2 of 2)

Decreased
-41.88 Arginine

Normal

Increased
50.00 Homocystine

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.

Urea Cycle Dysfunction ()

80.00% (4 of 5)

Decreased
-51.21 Alanine
-45.83 Aspartic Acid
-38.19 Asparagine
-40.67 Ornithine

Normal

Increased
-53.14 Citrulline

The urea cycle is important as it helps eliminate excessive ammonia from the body.

Depression (276.50)

75.00% (3 of 4)

Decreased
-54.00 Methionine
-48.11 Phenylalanine
-50.00 Tryptophan
-20.16 Tyrosine

Normal

Increased

Inefficient Glutathione Production ()

75.00% (3 of 4)

Decreased
65.00 Cystine
-52.14 Glutamic Acid
-48.22 Glycine
-54.00 Methionine

Normal

Increased

Collagen Production Imbalance (270.1)

66.67% (2 of 3)

Decreased
-29.53 Proline

Normal

Increased
-6.67 Hydroxyproline
50.00 Hydroxylysine

Review Cardiovascular Risk Factors ()

66.67% (4 of 6)

Decreased

Normal
2.00 HDL-Cholesterol

Increased
-7.50 Cholesterol
41.18 Glucose
27.86 Triglycerides
25.86 Uric Acid
14.71 LDL

Review family history or personal history of cardiovascular risk factors such as smoking, excessive

Clinical Correlation

A Person

Female / Age: 46

Foundational Wellness Profile Date: 3/12/2008

Integrative Health Care (6087)

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.

Review Cardiovascular Risk Factors (continued)

alcohol intake, high fat diet, and/or sedentary lifestyle.

Review Cardiovascular Risk Factors ()

66.67% (4 of 6)

Decreased

2.00 HDL-Cholesterol

Normal

14.71 LDL

Increased

8.06 GGT

41.18 Glucose

27.86 Triglycerides

25.86 Uric Acid

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

Village Pharmacy

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

Ordering Practitioner
Integrative Health Care
775-555-5555

Custom Amino Acid Profile

Biochemically Individualized for your patient

Client
A Person

Visit date
3/12/2008

Order Payment and Delivery Information

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

Ship to: _____

Address: _____

City, State, Zip: _____

Phone: _____

Credit Card Number: _____

Expires: _____

Authorizing Signature: _____

Amino Acid Customization Details

	Container Base Grams	Test Result	% Status	Grams Added
L-Arginine	19.50	58.93000	-41.88	0
L-Histidine	13.50	71	-48.57	0
L-Isoleucine	13.50	52.43999	-47.78	0
L-Leucine	12.00	99.63999	-41.24	0
L-Lysine	12.00	248	15.33	0
L-Methionine	15.00	24	-54.00	1
L-Phenylalanine	15.00	46.79999	-48.11	0
L-Taurine	8.10	47	-51.50	13
L-Threonine	13.50	158	-11.33	0
L-Tryptophan (as 5-HTP)	0.90	35	-50.00	0
L-Valine	15.00	178	-46.80	0
Total Base Grams: 138.00		Total Grams Added: 14		

Other Ingredients *

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

* Flavored product may include additional ingredients not shown.

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