



CELLMATE™
WELLNESS
SYSTEMS

P.O. Box 4549
Incline Village, NV 89450

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ANASTASYA SCHAUSS

Test date: 4/8/2001

Entered: 4/19/2001

Next Test Due: 4/8/2002

CellMate™ Urine Organic Acid Report

Patient

Printed on Tuesday, December 18, 2001 for:

Carbon Based Corporation

P.O. Box 4549
Incline Village, NV 89450
775-832-8485
775-832-8488 (fax)

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Basic Status Report (High/Low)

ANASTASYA SCHAUSS

Female / Age: 4

Client ID: (9340)

Urine Organic Acid Date: 4/8/2001

Carbon Based Corporation (17)

775-832-8485

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

Low Results

-80	-60	-40	-20	0					
					% Status	Result	<i>Low</i>	<i>High</i>	
					-43.33	L	10.00	0.00	150.00

-25%

High Results

-50	0	50	100	150					
					% Status	Result	<i>Low</i>	<i>High</i>	
					360.00	H	4.10	0.00	1.00
					297.50	H	6.95	0.00	2.00
					220.00	H	2.70	0.00	1.00
					146.67	H	5.90	0.00	3.00
					146.67	H	2.36	0.00	1.20
					140.00	H	3.62	0.20	2.00
					133.75	H	1470.00	0.00	800.00
					125.00	H	7.00	0.00	4.00
					125.00	H	7.00	0.00	4.00
					124.29	H	1.22	0.00	0.70
					113.33	H	4.90	0.00	3.00
					110.00	H	8.00	0.00	5.00
					103.18	H	36.70	3.00	25.00
					102.83	H	275.10	0.00	180.00
					88.00	H	0.69	0.00	0.50
					79.67	H	43.90	5.00	35.00
					76.92	H	37.00	4.00	30.00
					70.00	H	60.00	0.00	50.00
					66.67	H	2.10	0.00	1.80
					50.00	H	40.00	0.00	40.00
					48.28	H	2269.00	500.00	2300.00
					48.00	H	4.90	0.00	5.00
					46.00	H	770.00	50.00	800.00
					41.67	H	1.10	0.00	1.20
					38.89	H	0.80	0.00	0.90
					31.22	H	204.00	5.00	250.00
					26.80	H	38.40	0.00	50.00

-25%

25%

Basic Status Report (Alphabetic)

ANASTASYA SCHAUSS

Urine Organic Acid Date: 4/8/2001

Female / Age: 4

Carbon Based Corporation (17)

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

-100	-50	0	50	100		% Status		Result	Low	High
						360.00	H	4.10	0.00	1.00
						14.29		3.50	0.80	5.00
						146.67	H	5.90	0.00	3.00
						26.80	H	38.40	0.00	50.00
						146.67	H	2.36	0.00	1.20
						103.18	H	36.70	3.00	25.00
						297.50	H	6.95	0.00	2.00
						16.00		0.99	0.00	1.50
						110.00	H	8.00	0.00	5.00
						50.00	H	40.00	0.00	40.00
						1.00		10.20	0.00	20.00
						220.00	H	2.70	0.00	1.00
						31.22	H	204.00	5.00	250.00
						15.00		6.50	0.00	10.00
						48.28	H	2269.00	500.00	2300.00
						38.89	H	0.80	0.00	0.90
						125.00	H	7.00	0.00	4.00
						-10.00		0.60	0.20	1.20
						133.75	H	1470.00	0.00	800.00
						5.00		3.20	1.00	5.00
						10.00		0.68	0.20	1.00
						46.00	H	770.00	50.00	800.00
						76.92	H	37.00	4.00	30.00
						11.67		3.70	0.00	6.00
						113.33	H	4.90	0.00	3.00
						102.83	H	275.10	0.00	180.00
						-43.33	L	10.00	0.00	150.00
						16.67		0.80	0.00	1.20
						41.67	H	1.10	0.00	1.20
						48.00	H	4.90	0.00	5.00
						70.00	H	60.00	0.00	50.00
						88.00	H	0.69	0.00	0.50
						4.63		43.70	0.00	80.00
						124.29	H	1.22	0.00	0.70
						125.00	H	7.00	0.00	4.00
						79.67	H	43.90	5.00	35.00
						0.00		40.00	0.00	80.00
						66.67	H	2.10	0.00	1.80
						140.00	H	3.62	0.20	2.00
		-25%	25%			79.69		Total Status Deviation		
						76.95		Total Status Skew		

Client Summary Review

ANASTASYA SCHAUSS

Female / Age: 4

Urine Organic Acid Date: 4/8/2001

Carbon Based Corporation (17)

Nutritional Support

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

- | | |
|---|---|
| <input type="checkbox"/> 1-Avoid Xylene and Toluene
Lifestyle Change | <input type="checkbox"/> 1-B-Complex
1x daily 1 tablet |
| <input type="checkbox"/> 1-Carbohydrate Metabolism Profile
See Nutrition Detail | <input type="checkbox"/> 1-Fatty Acid Oxidation Impairment
See Nutrition Detail |
| <input type="checkbox"/> 1-L-Carnitine
1x daily 250 mg | <input type="checkbox"/> 1-Riboflavin (B2)
1x daily 25 mg |
| <input type="checkbox"/> 1-Saccharomyces boulardii
1 capsule with each meal | <input type="checkbox"/> 1-Vitamin B12
1z daily 1000 mcg |
| <input type="checkbox"/> 2-Antioxidant Protocol
See Nutrition Detail | <input type="checkbox"/> 2-Magnesium Aspartate
1x daily 90 mg |

Practitioner Summary Review

ANASTASYA SCHAUSS

Female / Age: 4

Urine Organic Acid Date: 4/8/2001

Carbon Based Corporation (17)

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
Amino Acid Catabolism	153.39%	153.39%
Lipid Metabolism	132.22%	132.22%
B-Complex Markers	114.90%	114.90%
Liver Detox Indicators	107.49%	107.49%
Carbohydrate Metabolism	69.50%	69.50%
Intestinal Dysbiosis	68.50%	61.28%
Neurotransmitters	53.10%	53.10%
Citric Acid Cycle	42.50%	40.00%

Lab Reported out-of-range Values

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

2-Methylhippurate (360.00%)

This organic acid is an indication of exposure to either toluene and xylene. A comprehensive detoxification program should be undertaken to help the body excrete these petrochemicals.

a-Ketoisocaproate (297.50%)

This organic acid is elevated due to poor amino acid metabolism. Supplementation with a B complex may be necessary.

B-Ketoglutarate (220.00%)

Elevated levels have been seen in children with autistic traits and/or in cases of an overgrowth of yeast or fungi especially after repeated use of antibiotics.

Adipate (146.67%)

An elevation of this organic acid may be indicative of fatty acid oxidation. Clinical symptoms may include weakness, nausea, hypoglycemia, recurrent infections and sweaty feet odor.

a-Keto-B-methylvalerate (146.67%)

An analyte of valine, this organic acid at a high level may be indicative of a functional B-complex imbalance or deficiency.

Vanilmandelate (140.00%)

High levels of this organic acid may be related to low CNS levels of epinephrine and norepinephrine.

Hippurate (133.75%)

A high reading of this organic acid may be indicative of an overgrowth of intestinal microbiota. The use of glycine may help lower the results. The presence of this acid may be due to the action of bacteria on phenylalanine.

Ethylmalonate (125.00%)

Elevated in multiple acyl-CoA dehydrogenase deficiency which may lead to the inability to oxidize fatty acids for energy. If adipate is also elevated may indicate severe fatty acid oxidation impairment. May need riboflavin and CoQ10 to activate needed enzyme.

Suberate (125.00%)

Elevated levels have been correlated to deficiencies of B2 (riboflavin) and to a lesser extent B5 (pantothenic acid).

Pyruvate (124.29%)

Pyruvate is the end product of glucose metabolism. An elevated level may be indicative of a fundamental deficiency of B-complex vitamins and lipoic acid.

Methylmalonate (113.33%)

An elevated result may be due to a functional B12 deficiency.

Benzoate (110.00%)

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

a-Ketoglutarate (103.18%)

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

Orotate (102.83%)

An elevated reading of this organic acid may be due to an arginine deficiency, ammonia intoxication and by excessive lysine. Arginine, aspartic acid, alpha ketoglutarate and magnesium may be helpful.

p-Hydroxyphenyllacetate (88.00%)

Elevated levels may be indicative of overgrowth of intestinal bacterial or protozoa.

Succinate (79.67%)

A high reading of this organic acid may be indicative of poor amino acid metabolism and could indicate a need for additional magnesium, riboflavin and Coenzyme Q10.

Lactate (76.92%)

A high level of this organic acid may be indicative of poor metabolism and/or a problem in the citric acid cycle.

P-Hydroxyphenylacetate (70.00%)

Elevated levels may be indicative of overgrowth of intestinal bacterial or protozoa especially Giardia lamblia, ileal resection

Tricarballylate (66.67%)

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

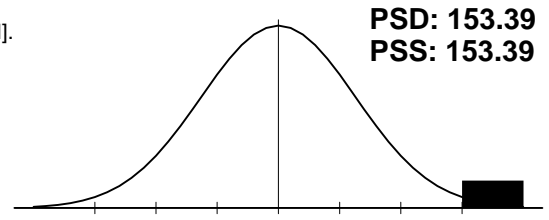
B-Hydroxybutyrate (50.00%)

An increase in the level of this organic acid may be indicative of poor carbohydrate metabolism. Chromium supplementation may be helpful.

Amino Acid Catabolism

a-Ketoisovalerate, a-Ketoisocaproate[H], a-Keto-B-methylvalerate[H].

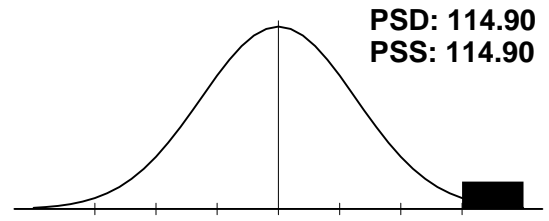
This panel profile may be due to the lack of precursors in the metabolism of the branched chain amino acids (Leucine, Isoleucine and Valine). Supplementation of B-complex vitamins may be helpful as well as lipoic acid. Review Nutritional Support for further details.



B-Complex Markers

B-Hydroxyisovalerate, a-Ketoisovalerate, a-Ketoisocaproate[H], a-Keto-B-methylvalerate[H], Methylmalonate[H].

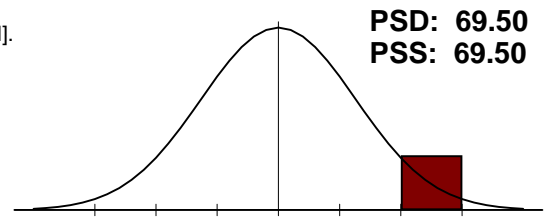
This panel profile may reflect a low level of certain B-complex vitamins. Review the Nutritional Support section to ascertain which nutrient are necessary.



Carbohydrate Metabolism

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

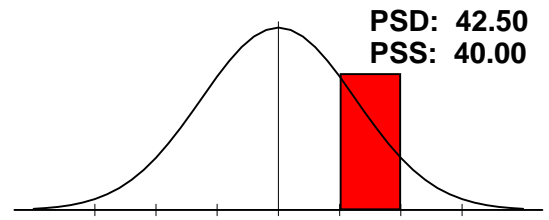
The panel profile seen here may be due to impaired carbohydrate metabolism, inefficient utilization or poor mobilization of carbohydrates. Often, B-complex vitamins are helpful in balancing these results. See Nutritional Support for further details.



Citric Acid Cycle

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

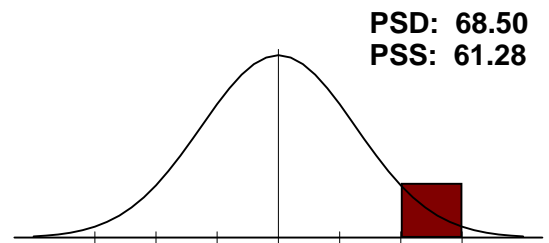
This panel profile may be indicative of intestinal dysbiosis. Poor absorption and metabolism of proteins, fats and carbohydrates may occur. A review of potential bacteria, protozoa, Clostridial spp., yeast or fungus may be necessary.



Intestinal Dysbiosis

Hippurate[H], Benzoate[H], p-Hydroxybenzoate[H], p-Hydroxyphenylacetate[H], Phenylacetate, Phenylpropionate[H], p-Cresol[L], Tricarballoylat.

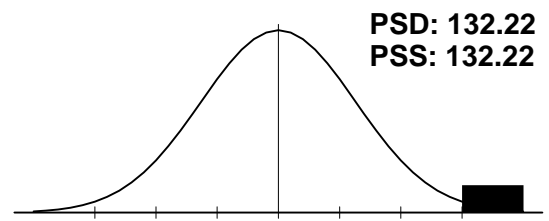
This panel profile may be indicative of intestinal dysbiosis. Poor absorption and metabolism of proteins, fats and carbohydrates may occur. A review of potential bacteria, protozoa, Clostridial spp., yeast or fungus may be necessary.



Lipid Metabolism

Adipate[H], Suberate[H], Ethylmalonate[H].

This panel profile may be due to poor fatty acid oxidation. Environmental toxin exposure, genetic abnormality, and viral infections should be suspected.

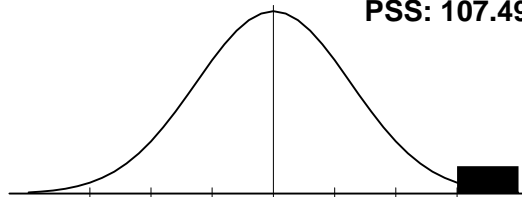


Liver Detox Indicators

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

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

PSD: 107.49
PSS: 107.49

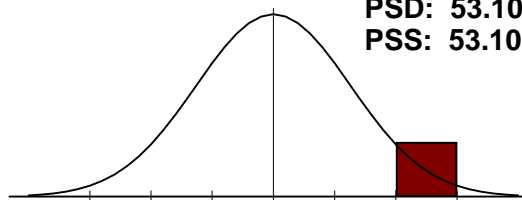


Neurotransmitters

Vanilmandelate[H], Homovanillate, 5-Hydroxyindoleacetate.

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

PSD: 53.10
PSS: 53.10



Nutrition - Detail

ANASTASYA SCHAUSS

Female / Age: 4

Urine Organic Acid Date: 4/8/2001

Carbon Based Corporation (17)

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-Avoid Xylene and Toluene Lifestyle Change

AVOID XYLENE AND TOLUENE

Due to the elevated level of 2-Methylhippurate, it is important that you avoid xylene, a compound found in fossil fuels and as a solvent as well as toluene.

Decreased

Rationale

Normal

Increased

2-Methylhippurate

1-B-Complex 1x daily 1 tablet

B-COMPLEX VITAMINS

B complex vitamins are involved in a broad spectrum of cell metabolic deficiencies as well as fatty acid utilization.

Decreased

Normal

Increased

Isocitrate
a-Ketoglutarate
Citrate
Cis-Aconitate

1-Carbohydrate Metabolism Profile See Nutrition Detail

CARBOHYDRATE METABOLISM PROFILE

When Lactate and Pyruvate are elevated it indicates a potential for impaired carbohydrate metabolism. This pattern indicates suboptimal operation of carbohydrate metabolism, interfering with efficient 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 (1x daily)

Digestive Enzymes (1-2 with each meal)

Decreased

Normal

Increased

Lactate
Pyruvate

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 arteriosclerotic heart disease. Mutat Res, 275:169-180 (1992).

1-Fatty Acid Oxidation Impairment See Nutrition Detail

FATTY ACID CO-FACTOR PROTOCOL

With elevated Ethymalonate, there may be an acyl-CoA dehydrogenase deficiency thereby causing inefficient fatty acid oxidation to occur. The following nutrients may prove beneficial:

Riboflavin [B2] (50 mg 1x daily)

CoEnzyme Q10 (50 mg 1x daily)

Decreased

Normal

Increased

Ethylmalonate
Suberate
Adipate

1-L-Carnitine 1x daily 250 mg

L-CARNITINE

Carnitine is sometimes considered a non-essential amino acid which is synthesized in the liver and kidneys from lysine, methionine and other nutrients. It is critical in the metabolism of fat and transport of long-chain essential fatty acids as well as being cardiac protective.

Decreased

Normal

Increased

Suberate
Ethylmalonate
Adipate

1-Riboflavin (B2) 1x daily 25 mg

RIBOFLAVIN (B2)

It is a constituent of certain flavoproteins that function as coenzymes in cellular oxidation. It is crucial to the metabolism of carbohydrates, amino acids and lipids.

Decreased

Normal

Increased

Succinate
Lactate
Adipate

1-Saccharomyces boulardii 1 capsule with each meal

SACCHAROMYCES BOULARDII

The beneficial organism *S. boulardii* is helpful in individuals with a high Dihydroxyphenylpropionate (DHPP) level in their urine.

Decreased

Normal

Increased

DHPP

Nutrition - Detail

ANASTASYA SCHAUSS

Female / Age: 4

Urine Organic Acid Date: 4/8/2001

Carbon Based Corporation (17)

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1-Vitamin B12 1z daily 1000 mcg

VITAMIN B12

The only vitamin containing essential mineral elements, B12 is important in metabolism of nerve tissue, protein, fat and carbohydrate metabolism and the actions of a number of amino acids. It also is involved in the production of DNA and RNA. The organic acid Methylmalonate when high, is a good indicator of a B12 deficiency.

Decreased

Rationale

Normal

Increased

Methylmalonate

2-Antioxidant Protocol 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/BETA-CAROTENE

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

Normal

Increased

p-Hydroxyphenyllacetate

2-Magnesium Aspartate 1x daily 90 mg

MAGNESIUM (Mg)

Second most abundant mineral in intracellular fluid. It helps facilitate Na - K transport and influences Ca levels. It is involved in vasodilation, contraction, as well as cardiac and skeletal muscle cells. Required in over 300 enzymes, temperature control, neuronal homeostasis and has a profound effect on cardiac physiology. When certain intestinal bacteria begin to overgrow, we see elevated levels of Tricarbalylate which binds to magnesium potentially causing a deficiency.

Decreased

Normal

Increased

Tricarbalylate

Clinical Correlation

ANASTASYA SCHAUSS

Female / Age: 4

Urine Organic Acid Date: 4/8/2001

Carbon Based Corporation (17)

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.

No disease pattern matches > 66.0%