



# NutriStat

Improving Nutritional & Metabolic Health

Dr. TEST DOCTOR  
TEST HEALTH CENTRE

**TEST PATIENT**

**01-Jan-1960    Female**

**LAB ID: 3890014**



**Nutritional Guide**

Nutrient	Adult Dose Range	Units	Clinician Notes
Vitamin-C	450.0	mg	
Vitamin-B1	15.0	mg	
Vitamin-B2	17.0	mg	
Vitamin-B3	13.0	mg	
Vitamin-B5	10.0	mg	
Vitamin-B6	5.0	mg	
Vitamin-B12	450.0	ug	
Chromium .	3.0	ug	
Magnesium .	140.0	mg	
Acetyl-L-Carnitine.	20.0	mg	
N-Acetylcysteine.	5.0	mg	
Glutathione.	4.6	mg	
Glycine .	5.0	mg	
Methionine.	6.0	mg	
Ornithine.	10.0	mg	
Serine.	5.0	mg	
Taurine .	6.0	mg	
Tryptophan.	8.0	mg	
Lactobacillus	1.0	billion CFU	
Probiotics (Multistain)	1.0	billion CFU	
D-Lactate-free probiotics	1.0	billion CFU	

**Disclaimer:**

Supplement recommendations are based on the Organic Acid test results. The prescribing health practitioner must take into consideration the age, weight, sex, and pregnancy or lactation state. In addition, consider clinical state, medication regime, associated drug-nutrient depletion and allergies. The doses listed above are considered optimal, based on lab results and do not apply to specific disease conditions where doses may need to be altered. The vitamins, minerals or amino acids listed are elemental quantities. Use clinical discretion when choosing the right salt with the guidance of your compounding health professional. For example, Magnesium may be prescribed as a glycinate for its calming effect or threonate may be used for a Magnesium that crosses the blood-brain-barrier.

**References:**

Laboratory Evaluations for Integrative and Functional Medicine by Richard Lord. J.Alexander Bralley; Textbook of Nutritional Medicine by Alan Gaby.

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LAB ID : **3890014**  
 Collection Date : **11-May-2023**  
 Received Date: **11-May-2023**

Dr.TEST DOCTOR

**Mineral Analysis**

BLOOD - Red Cell	Result	Range	Units	
Chromium	<b>1.20</b>	1.00 - 2.00	ug/L	
COBALT	<b>1.30</b>	0.13 - 1.70	ug/L	
Iodine	<b>17.00</b>	15.00 - 160.00	ug/L	
MANGANESE	<b>9.9</b>	9.0 - 33.0	ug/L	
Molybdenum	<b>1.27</b>	0.60 - 2.00	ug/L	
Selenium.	<b>199.0</b>	190.0 - 500.0	ug/L	
Vanadium	<b>0.44</b>	0.10 - 0.50	ug/L	
Copper.	<b>0.88 *H</b>	0.52 - 0.80	mg/L	
Magnesium.	<b>41.0</b>	39.0 - 58.0	mg/L	
Zinc.	<b>9.14</b>	8.60 - 14.50	mg/L	

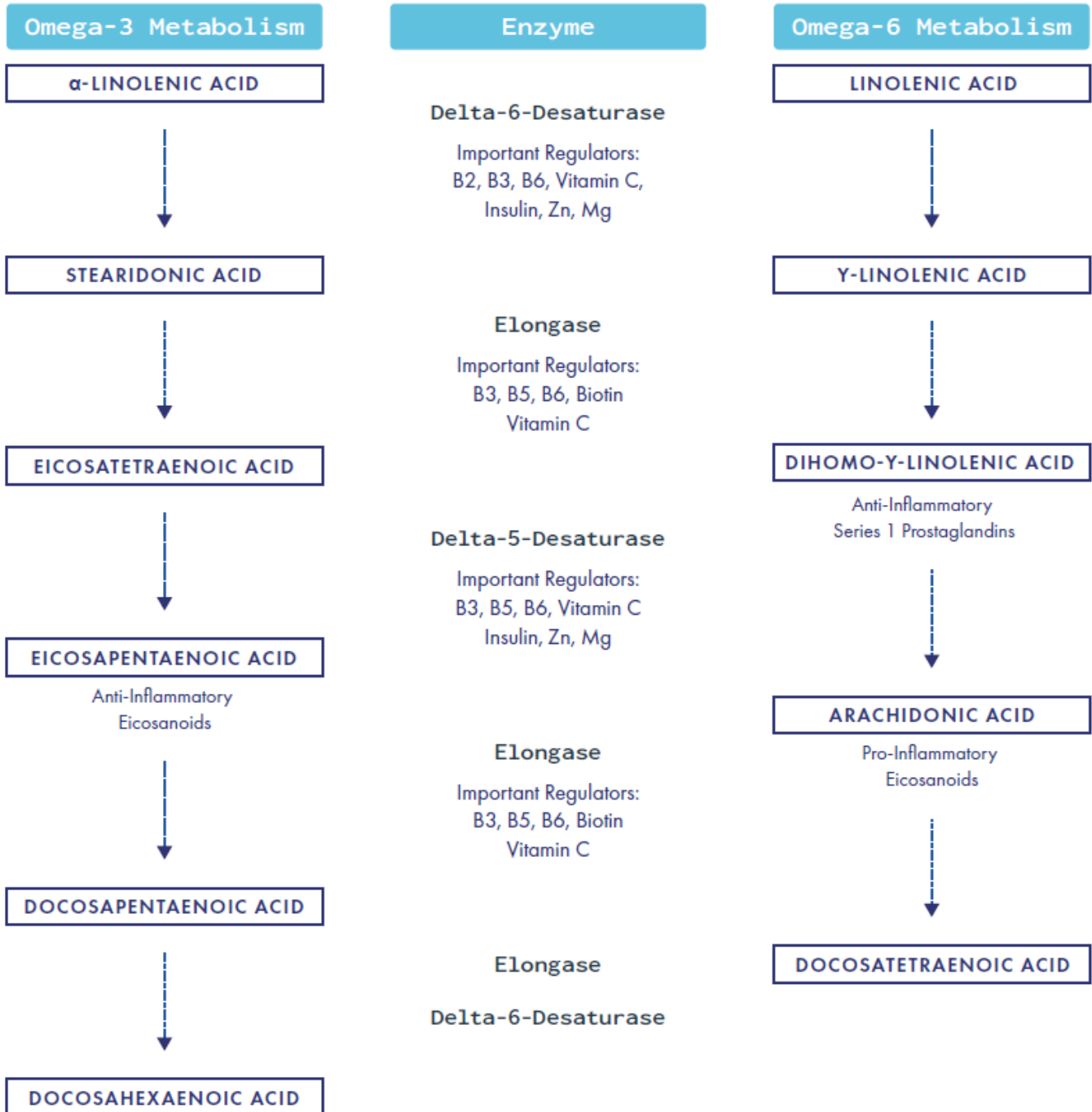
**Metal Analysis**

BLOOD - WHOLE	Result	Range	Units	
ALUMINIUM	<b>0.00</b>	0.00 - 30.00	ug/L	
Antimony	<b>2.00</b>	0.00 - 3.50	ug/L	
ARSENIC	<b>0.00</b>	0.00 - 10.00	ug/L	
BERYLLIUM	<b>0.00</b>	0.00 - 4.00	ug/L	
Bismuth	<b>0.00</b>	0.00 - 1.00	ug/L	
CADMIUM	<b>0.00</b>	0.00 - 1.10	ug/L	
LEAD	<b>0.00</b>	0.00 - 90.00	ug/L	
MERCURY	<b>3.60 *H</b>	0.00 - 2.00	ug/L	
NICKEL	<b>0.00</b>	0.00 - 2.00	ug/L	
Platinum	<b>0.00</b>	0.00 - 0.40	ug/L	
Silver	<b>0.00</b>	0.00 - 2.00	ug/L	
Thallium	<b>0.00</b>	0.00 - 0.60	ug/L	
Tin	<b>0.00</b>	0.00 - 1.30	ug/L	
Uranium	<b>0.00</b>	0.00 - 0.10	ug/L	
Zirconium	<b>0.00</b>	0.00 - 3.00	ug/L	

**CU/ZN & Free Copper Index**

BLOOD - SERUM	Result	Range	Units	
Copper:	<b>147 *H</b>	70.0 - 140.0	ug/dL	
Zinc, Plasma:	<b>65</b>	58.0 - 124.0	ug/dL	
Copper/Zinc Ratio:	<b>2.3 *H</b>	0.8 - 1.0	RATIO	
Ceruloplasmin:	<b>47.0 *H</b>	16.0 - 45.0	mg/dl	
% Free Copper:	<b>5.5</b>	< 20.0	%	

**Essential Fatty Acid Pathways**



**Essential Fatty Acids**

BLOOD - EDTA

**RED CELL FATTY ACID PROFILE**
**Red Cell Fatty Acid Summary**

	Result	Range	Units	
<b>Saturated Fats, Total</b>	<b>36.34</b>	29.89 - 42.10	%	
<b>Monounsaturated Fats, Total</b>	<b>22.55</b>	15.65 - 31.82	%	
<b>Omega 3, Total</b>	<b>5.75</b>	2.57 - 15.15	%	
<b>Omega 6, Total</b>	<b>34.94</b>	24.85 - 44.15	%	
<b>Omega 3/Omega 6 Ratio</b>	<b>0.2 *L</b>	0.4 - 0.5	RATIO	
<b>Omega 6/Omega 3 Ratio</b>	<b>6.1</b>	1.9 - 14.6	RATIO	
<b>AA/EPA ratio</b>	<b>9.5</b>	1.1 - 69.2	RATIO	
<b>OMEGA 3 INDEX</b>	<b>5.67</b>		%	
<b>Delta 6 Desaturase Activity</b>	<b>20.5 *H</b>	6.0 - 12.3	RATIO	
<b>Omega 3 Fatty Acids</b>				
alpha Linolenic Acid	0.41	0.10 - 1.90	%	
Eicosapentanoic Acid	0.95	0.14 - 6.92	%	
Docosapentanoic Acid	1.51	0.53 - 2.81	%	
Docosahexanoic Acid	2.88	1.00 - 6.50	%	
Total Omega 3 Fatty acids	5.74	2.57 - 15.15	%	
<b>Omega 6 Fatty Acids</b>				
Linoleic Acid	23.36	14.00 - 31.30	%	
gamma Linolenic Acid	0.26	0.05 - 0.72	%	
Eicosadienoic Acid	0.21	0.10 - 0.43	%	
Dihomo-g-linolenic Acid	1.14	0.50 - 2.50	%	
Arachidonic Acid	9.00	5.00 - 14.80	%	
Docosatetraenoic Acid	0.78	0.30 - 2.50	%	
Docosapentaenoic Acid (n6)	0.19	0.08 - 0.83	%	
Total Omega 6 Fatty Acids	34.94	24.85 - 44.15	%	
<b>Monounsaturated Fats</b>				
Palmitoleic Acid	0.60	0.13 - 2.90	%	
Oleic Acid	21.09	14.20 - 29.50	%	
Gondoic Acid	0.23	0.10 - 0.77	%	
Nervonic Acid	0.63	0.13 - 1.96	%	
Total Monounsaturated Fats	22.55	15.65 - 31.82	%	
Total Omega 9 Fatty Acids	<b>21.95 *H</b>	16.00 - 20.60	%	
<b>Saturated Fatty acids</b>				
Myristic Acid	0.57	0.10 - 2.45	%	
Palmitic Acid	20.84	17.50 - 27.10	%	
Stearic Acid	13.11	8.40 - 15.00	%	
Arachidic Acid	<b>0.57 *H</b>	0.10 - 0.53	%	
Behenic Acid	0.62	0.20 - 1.59	%	
Lignoceric Acid	0.63	0.20 - 1.92	%	
Total Saturated Fats	35.98	29.89 - 42.10	%	
<b>Trans Fatty Acid Profile</b>				
Trans Palmitoleic Acid	0.13	0.10 - 2.45	%	
Trans Oleic Acid	0.41	0.00 - 0.51	%	
Trans Linoleic Fatty Acid	0.27	0.07 - 0.92	%	
Trans Fatty Acids, Total	0.80	0.30 - 2.02	%	
Trans Fat Index	0.68	0.22 - 1.99	%	

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### Amino Acids

BLOOD - LI HEPARI

#### AMINO ACIDS, Plasma

##### Essential Amino Acids

	Result	Range	Units	
Arginine	85.0	28.0 - 108	umol/L	
Histidine	72.1	65.0 - 104	umol/L	
Isoleucine	53.3	30.0 - 75.0	umol/L	
Leucine	73.4 *L	77.0 - 155	umol/L	
Lysine	134	105 - 207	umol/L	
Methionine	24.0	15.0 - 32.0	umol/L	
Phenylalanine	55.9	42.0 - 62.0	umol/L	
Taurine	43.3	27.0 - 95.0	umol/L	
Threonine	156	75.0 - 197	umol/L	
Tryptophane	17.0	15.0 - 53.0	umol/L	
Valine	147 *L	150 - 250	umol/L	
Total Branched Chain AAs	273 *L	324 - 557	umol/L	

##### Non-Essential Amino Acids

Alanine	344	218 - 474	umol/L	
Asparagine	53.6	26.0 - 74.0	umol/L	
Aspartate	0.5	0.0 - 6.0	umol/L	
Cystine	38.0	31.0 - 50.0	umol/L	
GABA	31.8	0.0 - 50.0	umol/L	
Glutamic Acid	23.6	6.0 - 47.0	umol/L	
Glutamine	476	340 - 740	umol/L	
Proline	126	97.0 - 240	umol/L	
Tyrosine	70.6	26.0 - 80.0	umol/L	
Large Neutral Amino Acids (LNAA)	399.6		umol/L	

##### Intermediary Metabolites

alpha-Amino adipic Acid	3.2	0.0 - 6.0	umol/L	
alpha-Aminobutyric Acid	8.5	5.0 - 35.0	umol/L	
beta-Aminoisobutyric Acid	2.5	0.0 - 10.0	umol/L	
Cystathionine	1.0	0.0 - 3.0	umol/L	
Citrulline	9.3 *L	10.0 - 55.0	umol/L	
Ornithine	47.0	36.0 - 96.0	umol/L	
Urea	1.0 *L	2.8 - 8.1	mmol/L	
Glycine	377	100 - 384	umol/L	
Serine	130	70.0 - 175	umol/L	
Phosphoserine	7.3	2.0 - 14.0	umol/L	
Sarcosine	38.5 *H	0.0 - 19.5	umol/L	

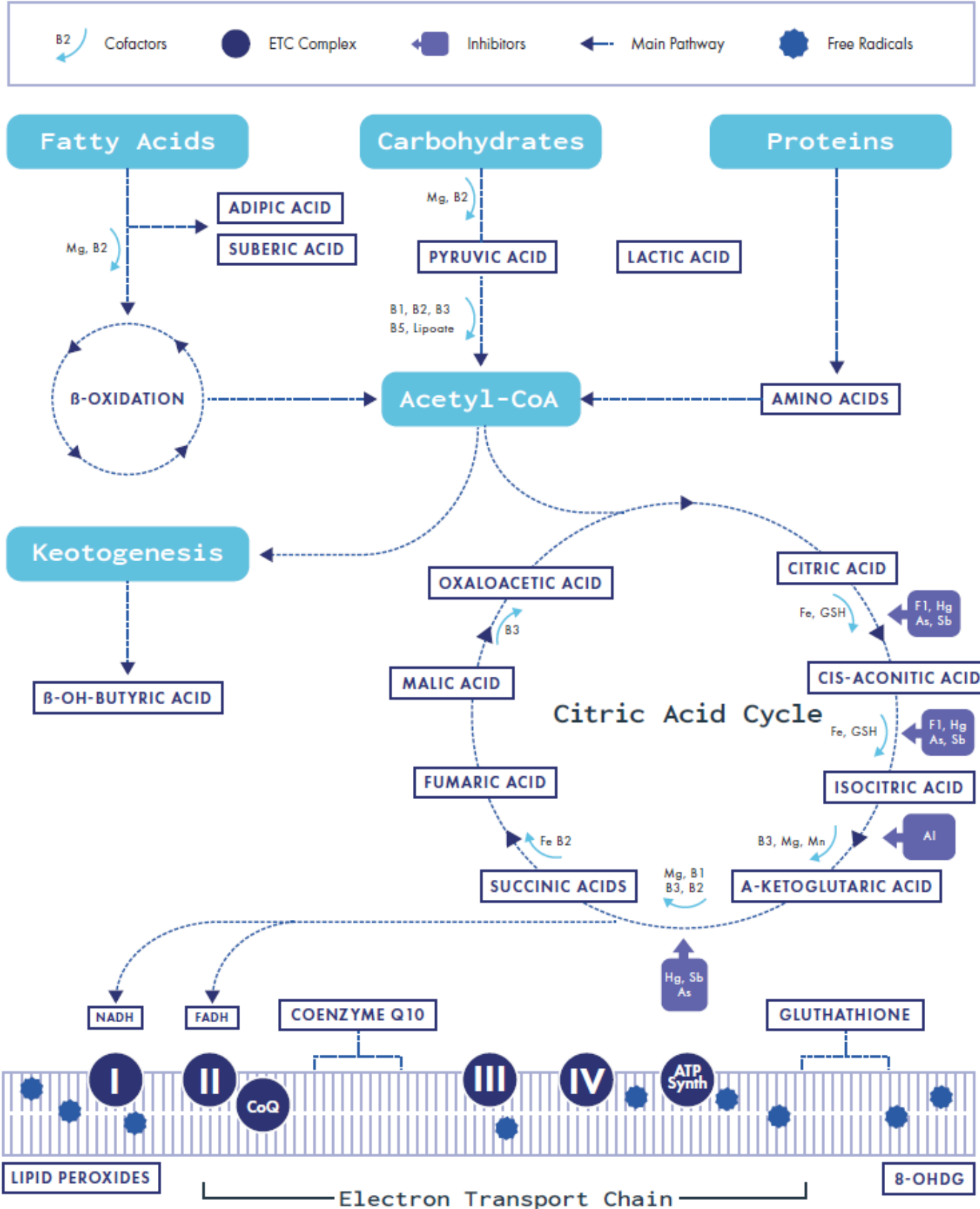
##### Dietary Peptide Related Markers

1-Methyl Histidine	12.1	1.0 - 42.0	umol/L	
3-Methyl Histidine	2.5	0.0 - 5.0	umol/L	
beta-Alanine	10.7	0.0 - 12.0	umol/L	
Anserine	0.0	0.0 - 43.0	umol/L	
Carnosine	3.4	0.0 - 10.0	umol/L	
Hydroxyproline	11.4	0.0 - 53.0	umol/L	
Hydroxylysine	3.1	2.0 - 5.0	umol/L	

##### Amino Acid Functional Ratios

Phenylalanine/Tyrosine	0.79	< 2.00	RATIO	
Glutamate/Glutamine	0.05 *L	0.06 - 0.23	RATIO	
Hydroxyproline/Proline	0.09	< 0.50	RATIO	
a-Amino-n-Butyrate/Leucine	0.12	< 0.2	RATIO	
Tryptophan/LNAA	0.04	0.04 - 0.10	RATIO	

**Organic Acid Pathways**





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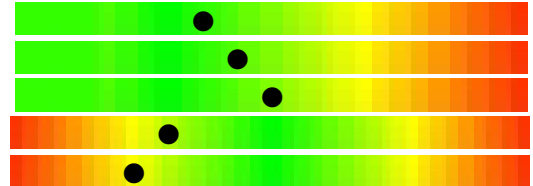
### Nutrient Markers

URINE, SPOT

#### KETONE/FATTY ACID Metabolites

(Carnitine & B2)

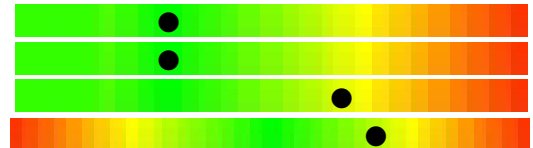
1. Adipic Acid.	3.60	0.00 - 11.10 ug/mgCR
2. Suberic Acid.	2.10	0.00 - 4.60 ug/mgCR
3. Ethylmalonic Acid	4.10	0.00 - 6.30 ug/mgCR
4. Pimelic Acid	12.0	5.9 - 31.8 ug/mgCR
5. Methyl-Succinic Acid	5.50	3.20 - 21.10 ug/mgCR



#### CARBOHYDRATE Metabolism/Glycolysis

(B1, B3, Cr, Lipoic Acid, CoQ10)

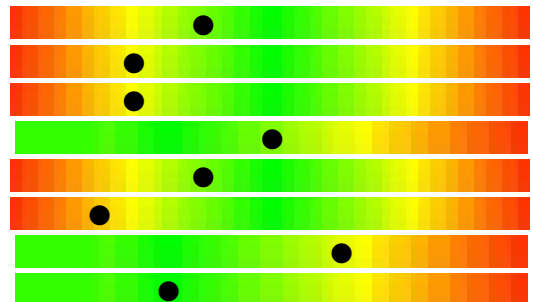
6. Pyruvic Acid.	1.60	0.00 - 6.40 ug/mgCR
7. Lactic Acid.	3.50	0.00 - 16.40 ug/mgCR
8. b-OH-Butyric Acid	8.60	0.00 - 9.90 ug/mgCR
9. Glucose (OA)	1.1	0.3 - 1.1 mmol/L



#### CITRIC ACID CYCLE Metabolites.

(B Comp., CoQ10, Amino Acids, Mg)

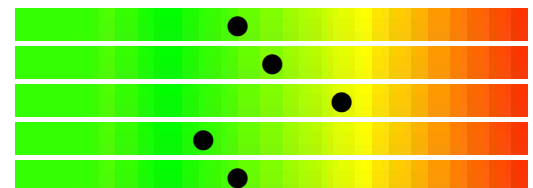
10. Citric Acid.	450.0	56.0 - 987.0 ug/mgCR
11. cis-Aconitic Acid.	29.0	18.0 - 78.0 ug/mgCR
12. Isocitric Acid.	49.0	35.0 - 143.0 ug/mgCR
13. a-Ketoglutaric Acid.	21.00	0.00 - 35.00 ug/mgCR
14. Succinic Acid	9.50	1.10 - 20.90 ug/mgCR
15. Fumaric Acid.	1.10	1.10 - 1.35 ug/mgCR
16. Malic Acid.	2.90	0.00 - 3.10 ug/mgCR
17. b-OH-b-Methylglutaric Acid	1.20	0.00 - 5.10 ug/mgCR



#### B-Complex Vitamins & Amino Acid Markers

(B1, B2, B3, B5, B6, Biotin)

18. a-Ketoisovaleric Acid	0.24	0.00 - 0.49 ug/mgCR
19. a-Ketoisocaproic Acid	0.30	0.00 - 0.52 ug/mgCR
20. a-Keto-b-Methylvaleric Acid	0.95	0.00 - 1.10 ug/mgCR
21. Xanthurenic Acid	0.2	0.0 - 0.5 ug/mgCR
22. beta-Hydroxyisovaleric Acid	5.50	0.00 - 11.50 ug/mgCR



#### METHYLATION COFACTORS

(B12, Folate)

23. Methylmalonic Acid.	2.90 *H	0.00 - 2.30 ug/mgCR
24. Formiminoglutamic Acid **	1.4	0.0 - 2.2 ug/mgCR

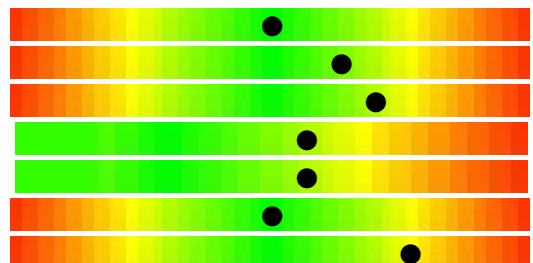


### Cell Regulation Markers

#### NEUROTRANSMITTER METABOLISM

(Tyrosine, Tryptophan, B6, Antioxidants)

25. Homovanillic Acid (HVA)	5.00	1.40 - 7.60 ug/mgCR
26. Vanillylmandelic Acid (VMA)	4.60	1.20 - 5.30 ug/mgCR
27. 5-Hydroxyindoleacetic Acid (5HIAA)	9.60	1.60 - 9.80 ug/mgCR
28. Kynurenic Acid.	1.1	0.0 - 1.5 ug/mgCR
29. Quinolinic Acid (OA)	4.70	0.00 - 5.80 ug/mgCR
30. Picolinic Acid	10.0	2.8 - 13.5 ug/mgCR
31. Cortisol (OA)	555 *H	166 - 507 nmol/L



Methodology: Liquid Chromatography with tandem mass spectrometry (LC-MS-MS).



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### Oxidative Damage/AntiOxidant Markers

(Vitamin C and Other Antioxidants)

32.	ParaHydroxyphenyllactate	0.57	0.00 - 0.66 ug/mgCR	
33.	8 OH-deoxyguanosine	3.8	0.0 - 7.6 ug/mgCR	

### Toxicants and Detoxification

#### DETOXIFICATION INDICATORS

(Arg, NAC, Met, Mg, Antioxidants)

34.	2-Methylhippuric Acid	<dl	0.00 - 0.19 ug/mgCR	
35.	Orotic Acid.	0.96	0.00 - 1.01 ug/mgCR	
36.	Glucaric Acid.	5.6	0.0 - 10.7 ug/mgCR	
37.	a-OH-Butyric Acid	0.77	0.00 - 0.90 ug/mgCR	
38.	Pyroglutamic Acid.	33.00	28.00 - 88.00g/mgCR	

### Compounds of Bacterial or Yeast/Fungal Origin

#### BACTERIAL DYSBIOSIS MARKERS.

39.	Benzoate (OA)	18.00 *H	0.00 - 9.30 ug/mgCR	
40.	Hippurate (OA)	944	0.0 - 1070 ug/mgCR	
41.	Phenylacetate	5.6 *H	0.0 - 0.2 ug/mgCR	
42.	Phenylpropionate	2.3 *H	0.0 - 0.1 ug/mgCR	
43.	ParaHydroxyBenzoate	3.5 *H	0.0 - 1.8 ug/mgCR	
44.	p-HydroxyPhenylacetate	24.0	0.0 - 34.0 ug/mgCR	
45.	Indoleacetic Acid	57.00	0.00 - 90.00ug/mgCR	
46.	Tricarballylate	0.95	0.00 - 1.41 ug/mgCR	

#### L. acidophilus/General Bacteria

47.	D-Lactate	0.9	0.0 - 4.1 ug/mgCR	
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#### CLOSTRIDIAL SPECIES

48.	Dihydroxyphenylpropionic Acid	0.1 *H	0.0 - 0.1 ug/mgCR	
49.	4-Cresol	11.0	0.0 - 75.0 ug/mgCR	
50.	3-OH-Propionic Acid	2.0	0.0 - 208.0 ug/mgCR	

#### YEAST/FUNGAL DYSBIOSIS MARKERS.

51.	Arabinitol	5.0	0.0 - 73.0 ug/mgCR	
52.	Citramalic Acid	3.1	0.0 - 3.6 ug/mgCR	
53.	Tartaric Acid.	4.0	0.0 - 7.0 ug/mgCR	

### Oxalate Metabolites

54.	Oxalic Acid	5.60	0.77 - 7.00 ug/mgCR	
55.	Glyceric Acid	21.0	16.0 - 117.0ug/mgCR	
56.	Glycolic Acid	14.0	6.8 - 101.0 ug/mgCR	

### Nutritional Markers

57.	Pyridoxic Acid (Vit B6)	5.0	0.0 - 34.0 ug/mgCR	
58.	Pantothenic Acid (Vit B5)	6.0	0.0 - 10.0 ug/mgCR	
59.	Glutaric Acid (Vit B2) **	0.2	0.0 - 0.4 ug/mgCR	
60.	Ascorbic Acid (Vit C)	9.0 *L	10.0 - 200 ug/mgCR	
61.	CoEnzyme-Q10 (CoQ10) **	15.00	0.17 - 39.00ug/mgCR	
62.	N-Acetylcysteine (NAC)	0.14	0.00 - 0.28 ug/mgCR	
63.	Biotin (Vit H)	2.10	0.19 - 2.70 ug/mgCR	

Creatinine, Urine Spot.	8.0	5.0 - 11.0 mmol/L	
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Results reported as <dl = Less than detectable limit \*\* A high value for this marker may indicate a deficiency of this vitamin

**Methodology:** Liquid Chromatography with tandem mass spectrometry (LC-MS-MS).