



Requisition #: \_\_\_\_\_

Patient Name: \_\_\_\_\_

Patient Age: \_\_\_\_\_

Patient Sex: \_\_\_\_\_

Specimen Id.: \_\_\_\_\_

F

Practitioner: \_\_\_\_\_

Date of Collection: \_\_\_\_\_

Time of Collection: \_\_\_\_\_

Print Date: \_\_\_\_\_

AMY PETRARCA

12/20/2021

Not Given

12/28/2021



## Organic Acids Test - Nutritional and Metabolic Profile

Metabolic Markers in Urine	Reference Range (mmol/mol creatinine)	Patient Value	Reference Population - Females Age 13 and Over
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### Intestinal Microbial Overgrowth

#### Yeast and Fungal Markers

1 Citramalic	≤ 3.6	3.3	
2 5-Hydroxymethyl-2-furoic (Aspergillus)	≤ 14	<b>H</b> 46	
3 3-Oxoglutaric	≤ 0.33	0	
4 Furan-2,5-dicarboxylic (Aspergillus)	≤ 16	<b>H</b> 18	
5 Furancarboxylglycine (Aspergillus)	≤ 1.9	0.72	
6 Tartaric (Aspergillus)	≤ 4.5	<b>H</b> 76	
7 Arabinose	≤ 29	<b>H</b> 74	
8 Carboxycitric	≤ 29	17	
9 Tricarballic (Fusarium)	≤ 0.44	<b>H</b> 0.62	

#### Bacterial Markers

10 Hippuric	≤ 613	451	
11 2-Hydroxyphenylacetic	0.06 - 0.66	0.36	
12 4-Hydroxybenzoic	≤ 1.3	<b>H</b> 1.6	
13 4-Hydroxyhippuric	0.79 - 17	8.9	
14 DHPPA (Beneficial Bacteria)	≤ 0.38	0.35	

#### Clostridia Bacterial Markers

15 4-Hydroxyphenylacetic (C. difficile, C. stricklandii, C. lituseburensis & others)	≤ 19	10	
16 HPHPA (C. sporogenes, C. caloritolerans, C. botulinum & others)	≤ 208	27	
17 4-Cresol (C. difficile)	≤ 75	67	
18 3-Indoleacetic (C. stricklandii, C. lituseburensis, C. subterminale & others)	≤ 11	1.3	

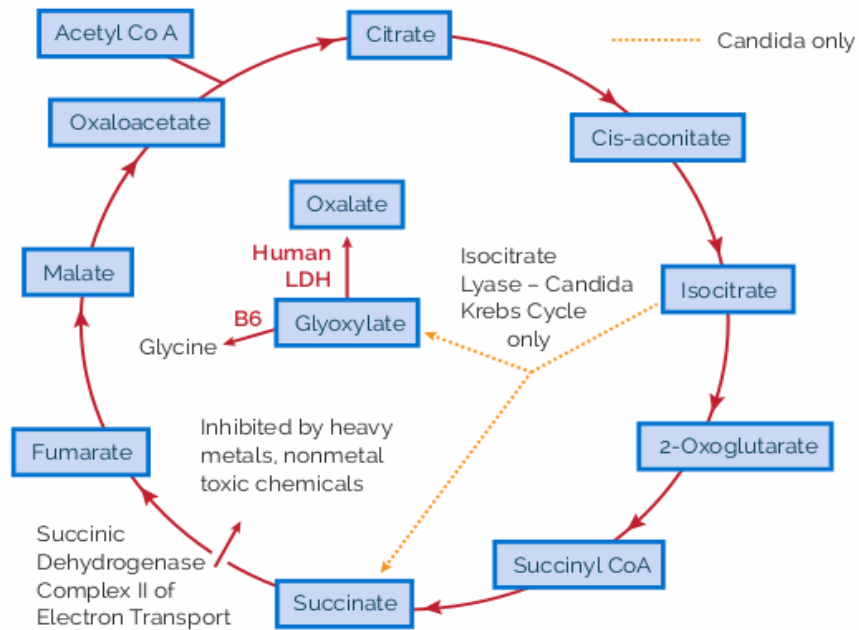
Testing performed by The Great Plains Laboratory, LLC., Overland Park, Kansas. The Great Plains Laboratory has developed and determined the performance characteristics of this test. This test has not been evaluated by the U.S. FDA; the FDA does not currently regulate such

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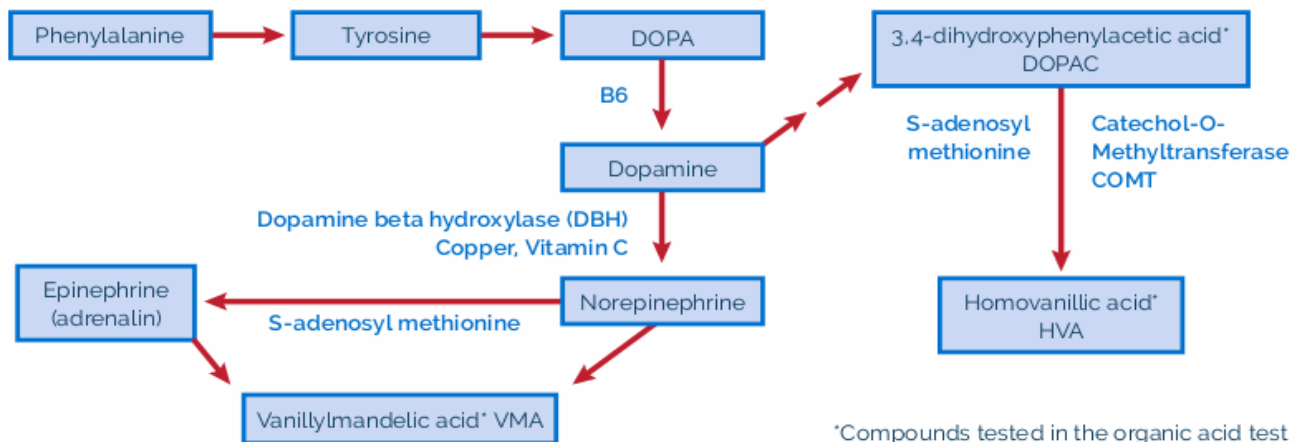
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AMY PETRARCA   
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**Human Krebs Cycle** showing Candida Krebs Cycle variant that causes excess Oxalate via Glyoxylate



Major pathways in the synthesis and breakdown of **catecholamine neurotransmitters** in the absence of microbial inhibitors



\*Compounds tested in the organic acid test

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## Oxalate Metabolites

19	Glyceric	0.77 - 7.0	3.4	
20	Glycolic	16 - 117	55	
21	Oxalic	6.8 - 101	<b>H</b> 105	

## Glycolytic Cycle Metabolites

22	Lactic	≤ 48	13	
23	Pyruvic	≤ 9.1	2.6	

## Mitochondrial Markers - Krebs Cycle Metabolites

24	Succinic	≤ 9.3	4.8	
25	Fumaric	≤ 0.94	0.43	
26	Malic	0.06 - 1.8	1.1	
27	2-Oxoglutaric	≤ 35	8.2	
28	Aconitic	6.8 - 28	21	
29	Citric	≤ 507	257	

## Mitochondrial Markers - Amino Acid Metabolites

30	3-Methylglutaric	≤ 0.76	<b>H</b> 1.7	
31	3-Hydroxyglutaric	≤ 6.2	6.1	
32	3-Methylglutaconic	≤ 4.5	<b>H</b> 5.0	

## Neurotransmitter Metabolites

### Phenylalanine and Tyrosine Metabolites

33	Homovanillic (HVA) <i>(dopamine)</i>	0.80 - 3.6	1.9	
34	Vanillylmandelic (VMA) <i>(norepinephrine, epinephrine)</i>	0.46 - 3.7	2.0	
35	HVA / VMA Ratio	0.16 - 1.8	0.92	
36	Dihydroxyphenylacetic (DOPAC) <i>(dopamine)</i>	0.08 - 3.5	2.4	
37	HVA/ DOPAC Ratio	0.10 - 1.8	0.78	

### Tryptophan Metabolites

38	5-Hydroxyindoleacetic (5-HIAA) <i>(serotonin)</i>	≤ 4.3	2.5	
39	Quinolinic	0.85 - 3.9	2.2	
40	Kynurenic	≤ 2.2	1.2	

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## Pyrimidine Metabolites - Folate Metabolism

41	Uracil	≤ 9.7		3.6	
42	Thymine	≤ 0.56		0.18	

## Ketone and Fatty Acid Oxidation

43	3-Hydroxybutyric	≤ 3.1		1.3	
44	Acetoacetic	≤ 10		2.2	
45	Ethylmalonic	0.44 - 2.8		2.1	
46	Methylsuccinic	0.10 - 2.2	H	2.3	
47	Adipic	0.04 - 3.8		3.0	
48	Suberic	0.18 - 2.2	H	4.1	
49	Sebacic	≤ 0.24		0.03	

## Nutritional Markers

### Vitamin B12

50	Methylmalonic *	≤ 2.3		0.84	
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### Vitamin B6

51	Pyridoxic (B6)	≤ 34		22	
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### Vitamin B5

52	Pantothenic (B5)	≤ 10	H	59	
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### Vitamin B2 (Riboflavin)

53	Glutaric *	0.04 - 0.36		0.14	
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### Vitamin C

54	Ascorbic	10 - 200	H	285	
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### Vitamin Q10 (CoQ10)

55	3-Hydroxy-3-methylglutaric *	0.17 - 39		21	
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### Glutathione Precursor and Chelating Agent

56	N-Acetylcysteine (NAC)	≤ 0.28		0.13	
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### Biotin (Vitamin H)

57	Methylcitric *	0.19 - 2.7		0.87	
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\* A high value for this marker may indicate a deficiency of this vitamin.