



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

Intestinal Microbial Overgrowth

Yeast and Fungal Markers

1 Citramalic	≤ 3.5	0.66	0.66
2 5-Hydroxymethyl-2-furoic	≤ 14	1.2	1.2
* 3 3-Oxoglutaric	≤ 0.33	H 1.3	1.3
4 Furan-2,5-dicarboxylic	≤ 16	0.77	0.77
5 Furan-carboxylglycine	≤ 1.9	0.31	0.31
6 Tartaric	≤ 4.5	2.0	2.0
7 Arabinose	≤ 28	27	27
8 Carboxycitric	≤ 29	13	13

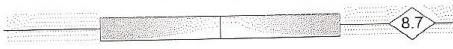
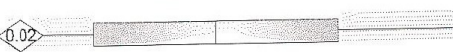
Malabsorption and Bacterial Markers

9 2-Hydroxyphenylacetic	≤ 0.66	0.41	0.41
10 4-Hydroxyphenylacetic	≤ 19	17	17
11 4-Hydroxybenzoic	≤ 1.3	H 1.5	1.5
12 4-Hydroxyhippuric	≤ 17	5.0	5.0
13 Hippuric	≤ 613	456	456
14 3-Indoleacetic	≤ 11	1.5	1.5
15 Succinic	≤ 9.3	H 16	16
16 HPPHA (Clostridia marker)	≤ 268	109	109
17 DHPPA (Beneficial bacteria)	≤ 0.38	0.14	0.14




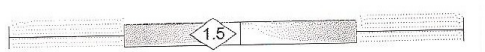




Metabolic Markers in Urine	Reference Range (mmol/mol creatinine)	Patient Value	Reference Population - Females Age 13 and Over
Oxalate Metabolites			
18 Glyceric	0.77 - 7.0	5.9	
19 Glycolic	15 - 117	H 170	
20 Oxalic	0.8 - 101	47	
Glycolytic Cycle Metabolites			
21 Lactic	≤ 48	20	
22 Pyruvic	≤ 9.1	0.92	
23 2-Hydroxybutyric	0.1 - 1.8	H 7.9	
Krebs Cycle Metabolites			
24 Succinic	≤ 9.3	H 16	
* 25 Fumaric	≤ 0.94	H 1.2	
26 Malic	0.0 - 1.8	1.4	
27 2-Oxoglutaric	≤ 3.5	5.5	
28 Aconitic	0.8 - 20	22	
29 Citric	≤ 507	150	
Neurotransmitter Metabolites			
30 Homovanillic (HVA) (dopamine)	0.44 - 3.5	2.1	
31 Vanillylmandelic (VMA) (norepinephrine, epinephrine)	0.44 - 3.7	1.5	
32 HVA/VMA Ratio	0.11 - 1.8	1.4	
33 5-Hydroxyindoleacetic (5-HIAA) (serotonin)	≤ 4.3	1.3	
34 Quinolnic	0.81 - 3.9	2.0	
35 Kynurenic	0.47 - 2.2	0.94	
36 Quinolnic/5-HIAA Ratio	0.42 - 2.0	1.5	

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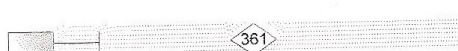


Pyrimidines - Folate Metabolism

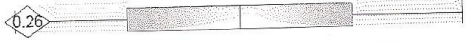
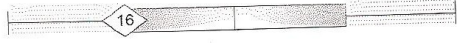
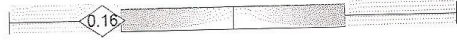
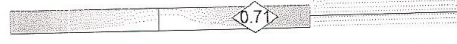
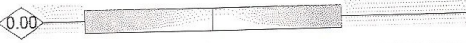

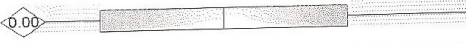
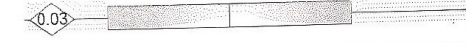


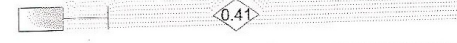
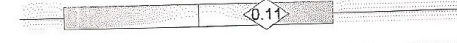
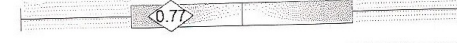
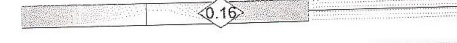




37 Uracil	≤ 9.7	8.7	
38 Thymine	≤ 0.56	0.02	

Ketone and Fatty Acid Oxidation

39 3-Hydroxybutyric	≤ 3.1	H 1 211	
40 Acetoacetic	≤ 10	H 2 362	
41 4-Hydroxybutyric	≤ 4.8	H 5.8	
42 Ethylmalonic	0.44 ± 2.0	1.5	
43 Methylsuccinic	0.11 ± 2.2	H 2.6	
44 Adipic	0.14 ± 3.8	H 5.6	
45 Suberic	0.11 ± 2.2	1.1	
46 Sebacic	≤ 0.24	0.02	

Nutritional Markers

Vitamin B12			
47 Methylmalonic	≤ 2.3	H 2.6	
Vitamin B6			
48 Pyridoxic (B6)	≤ 34	11	
Vitamin B5			
49 Pantothenic (B5)	≤ 10	H 21	
Vitamin B2 (Riboflavin)			
50 Glutaric	0.4 ± 0.36	H 0.51	
Vitamin C			
51 Ascorbic	11 ± 200	H 361	
Vitamin Q10 (CoQ10)			
52 3-Hydroxy-3-methylglutaric	0.17 ± 39	21	
Glutathione Precursor and Chelating Agent			
53 N-Acetylcysteine (NAC)	≤ 0.28	0.05	

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Nutritional Markers			
Biotin (Vitamin H)			
54 Methylcitric	0.15 - 2.7	0.26	
Indicators of Detoxification			
55 Pyroglutamic	10 - 33	16	
56 Orotic	0.01 - 0.54	0.16	
57 2-Hydroxyhippuric	≤ 1.3	0.71	
Amino Acid Metabolites			
58 2-Hydroxyisovaleric	≤ 0.42	0	
59 2-Oxoisovaleric	≤ 2.1	0	
60 3-Methyl-2-oxovaleric	≤ 0.87	0	
61 2-Hydroxyisocaproic	≤ 0.48	0.03	
62 2-Oxoisocaproic	≤ 0.37	0.30	
63 2-Oxo-4-methylbutyric	≤ 0.16	0.07	
64 Mandelic	≤ 0.21	H 0.41	
65 Phenyllactic	≤ 0.20	0.11	
66 Phenylpyruvic	0.21 - 1.9	0.77	
67 Homogentisic	≤ 0.36	0.16	
68 4-Hydroxyphenyllactic	≤ 0.80	H 0.85	
69 N-Acetylaspartic	≤ 3.0	2.4	
70 Malonic	≤ 9.7	1.7	
71 3-Methylglutaric	≤ 0.76	0.74	
Bone Metabolites			
72 Phosphoric	1000 - 5000	L 992	