Combined Gut Health Test (urine)

Sample ID	**Example**	Spot Creatinine	**0.076** mol/L
Sample Name	**Example**	Specific Gravity (SG)	**1.023**
DOB	01/01/2001	Urine pH	**6.5**
Sample Collection Date	01/11/2025		
Sample Received	03/11/2025		
Report Date			

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Scientific analysis for the improvement of life

Gut Health Test

Amino Acids	**Reference Range**	**Result**	**(L)ow / (H)igh**
Tyrosine		23.0	L
Phenylalanine		50.0	L
Tryptophan		67.0	

Unit of measurement for amino acids are nmol/mg creatinine

Yeast Metabolites	**Reference Range**	**Result**	**(L)ow / (H)igh**
Arabinitol		47.0	H
Tartaric acid		0.20	H
Citrmalic acid		0.10	

Unit of measurement for mmol/mol creatinine unless specified (creatinine is mol/L)

Bacterial Metabolites	**Reference Range**	**Result**	**(L)ow / (H)igh**
Benzoic Acid		1.45	
Hippuric Acid		120.0	H
Ratio: Benzoic Acid / Hippuric Acid		0.012	
Phenylacetic Acid		2.10	
Phenylpropionic Acid		0.08	
p-Hydroxyphenylacetic Acid		35.0	H
p-Hydroxybenzoic acid		4.77	H
Dihydroxyphenylpropionic Acid (DHPPA)		1.02	
Tricarballylic Acid		0.12	H
p-cresol sulfate		561.0	
Indoxyl sulfate		43.0	H
trans-indolylacryloylglycine (IAG)		6.5	H

Sample ID	**Example**
Sample Name	**Example**
Report Date	

Dietary Peptides (Casein)	P = Present (left blank if not present)
beta-casomorphin 1-5	
beta-casomorphin 1-6	P
beta-casomorphin 1-7	
Dietary Peptides (Gluten)	
Gluten exorphin A5	
Gluten exorphin B5	
Gluten exorphin C	

About the gut health test metabolites

Tryptophan (Trp), Phenylalanine (Phe), Tyrosine (Tyr)
Starting aromatic amino acids for the bacterial metabolites analysed. Typically derived from dietary (protein) sources.
Arabinitol, Tartarate, Citramalate
Arabinitol is a yeast related metabolite (from Candida such as C. albicans, C. parapsilosis, and C. tropicalis). Tartarate and citramalate are putative yeast markers.
Benzoate & Hippurate
Bacterial deamination of Phe forms benzoate, which is conjugated with glycine to form hippurate.
Elevated levels of benzoate compared to hippurate can indicate low levels of glycine and/or pantothenic acid (vitamin B5).
Phenylacetate & Phenylpropionate
Formed via bacterial action on Phe. Elevated levels can reflect incomplete digestion of Phe, gut bacterial overgrowth, or inborn errors of metabolism.
p-Hydroxybenzoate, p-hydroxyphenylacetate
Formed by bacterial and protozoa action on Tyr. Potential markers of gut dysbiosis. Fermentation of p-cresol forms p-hydroxybenzoic acid.
Dihydroxyphenylpropionate (DHPPA)
Confirmed overgrowth of clostridia shows elevated levels of this compound. Can also indicate malabsorption of aromatic amino acids.
Tricarballylate
Produced by specifc bacteria and/or molds. Binds to magnesium which results in magnesium deficiency.
p-cresol sulfate
Derived from secondary metabolism of p-cresol. A uremic toxin (affecting kidney functions) derived from bacteria acting on Tyr.
Urinary Indican (indoxyl sulfate)
Produced by bacteria in the upper bowel acting on Trp. Normal population of bacteria will only produce trace levels of this compound. A uremic toxin.
trans-Indolylacryloylglycine (IAG)
Bacterially derived metabolite of Trp. Potential biomarker for autism, gastrointestinal (GI) dysfunction and other conditions.
Precursors linked to intestinal permeability. Potentially sensitive to the use of a gluten-free diet.
Beta-casomorphin and gluten exorphin peptides
Dietary-derived peptides formed following the digestion of foods containing casein (the protein derived from mammalian dairy sources) or
gluten (the major protein found in various cereal crops). Typically digested in the GI tract and not normally found in urine.
Creatinine
Used in conjunction with specific gravity to determine the concentration of the urine sample.
pH
The pH or acidity of the urine affects the results obtained from the analysis

In the event of specific findings being flagged up, we suggest you contact your healthcare professional.

Several interventions have been proposed in relation to intestinal dysbiosis. These include:

Class	Examples
General	Encourage high fibre diet, remove mucosal irritants such as allergenic foods, alcohol, etc.
Laxatives	Pharmaceutical (speak to your medical provider)
Anti-fungal	Pharmaceutical (speak to your medical provider), anti-yeast diets
Anti-protozoal	Pharmaceutical (speak to your medical provider)
Probiotic Aerobic species	L.acidophilus, S.boulardii, etc.
Prebiotic	Fructo-oligosaccharide, use of raw and cooked vegetables
Mucosal regeneration	Glutamine, pantothenic acid

[Adapted from: Lord RS, Bralley JA. Clinical applications of urinary organic acids. Part 2. Dysbiosis markers. Altern Med Rev. 2008 Dec;13(4):292-306]

References

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Yu Y. et al. (2022) Efficacy and Safety of Diet Therapies in Children With Autism Spectrum Disorder: A Systematic Literature Review and Meta-Analysis.

Important notes:

(1) This test does not constitute a formal diagnosis or confirmation of a diagnosis of any condition.

(2) Any decision to act upon these findings must reside entirely with the person and/or their guardians.

(3) Involvement from a healthcare professional is strongly recommened prior to the commencement of any intervention.

(4) Analutos Ltd reserves the right to securely store any and all results from analyses undertaken.