# Metabolic Organic Acids Test

## 50+ Organic Acids in Urine

METAMETRICS LABORATORY

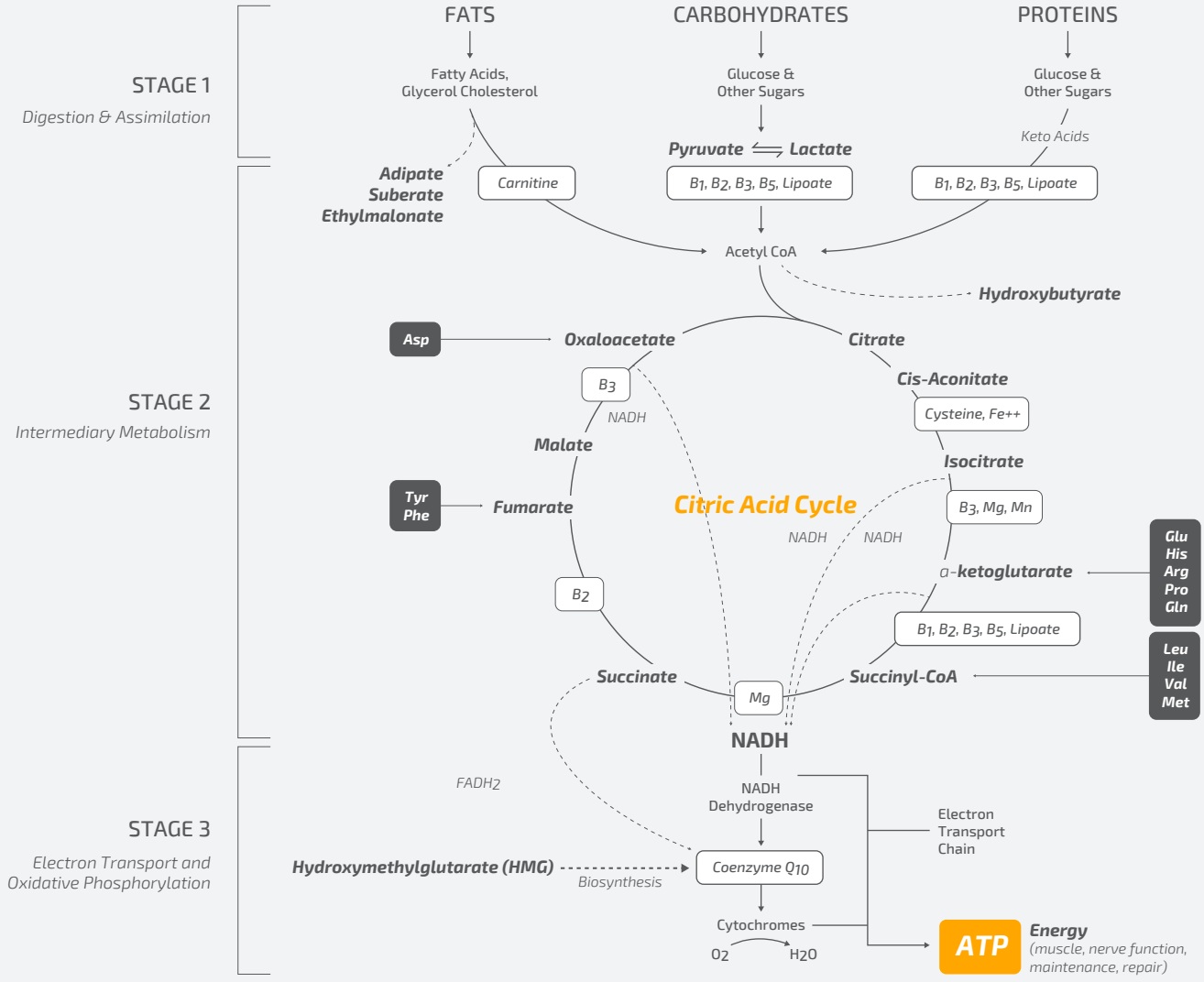
## Test Overview

This organic acid test measures more than 55 organic compound levels in urine produced by the body as part of many vital biochemical pathways. A defect in a particular pathway can result in either accumulated or reduced levels of its byproducts. Thus, measuring these markers can help identify the compromised or impaired metabolic process.

Test results categorize organic acids into major metabolic areas and concerns:

- ✓ Gastrointestinal dysbiosis or yeast and bacterial overgrowth markers
- ✓ Energy production
- ✓ Carbohydrates, protein, and fat metabolism
- ✓ Nutritional imbalances and methylation indicators
- ✓ Detoxification or toxic exposure
- ✓ Neurotransmitter metabolites

### Citric Acid Cycle and the Significance of Organic Acids




## Clinical Indications

1. Identify metabolic disruptions resulting from nutritional imbalances, vitamin deficiencies, gut dysbiosis, poor detoxification, toxin exposure, and oxidative stress.
2. Check for rare genetic defects of metabolism, commonly as a follow-up test for positive newborn screen result.

## Results Interpretation

- Reference ranges are age- and gender-specific, based on published scientific articles from healthy cohort.
- Abnormal levels of a single organic acid are non-specific indicator and can point to multiple anomalies. Combination of markers are often used to narrow down the potential root cause. The focus is identifying the overall pattern, rather than individual abnormalities.
- Results should be interpreted in the context of the bigger picture and should correlate with other laboratory tests, signs, and symptoms, as well as medical history and lifestyle of the patient.

## Test Information

Methodology: LC-MS/MS

Specimen: 20 ml midstream urine (24-hour or first morning)

Turnaround Time: 10 working days from receipt of sample

Specimen Viability: Store at -20°C (freezer) upon collection and ship on ice. Stable for 3 months.

Patient Preparation:

- Limit water intake to 8 glasses on the day of collection.
- Avoid high intake of apples, grapes (or raisins), pears, cranberries, or their juices for 2 days prior to specimen collection.
- Stop supplementation 3 days before urine collection.
- If supplements cannot be stopped, or if patient has taken antibiotic 30 days before the test, please indicate on the test request form.


References

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