

ORGANIC ACIDS

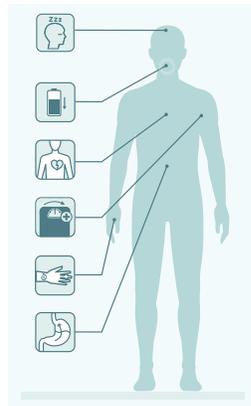


Which Patients Need the Vibrant Organic Acids Test?

Organic acids testing can accurately identify conditions associated with genetic disorders, nutrient deficiencies, intestinal dysbiosis, and toxicity from diet and prescription drugs.

Conditions and Symptoms Which May Benefit From Organic Acids Testing Include:

- Mental and/or developmental delays
- Fatigue and weakness
- Depression and/or anxiety
- Dizziness
- Mood swings
- Difficulty concentrating
- Nausea
- Sleep problems
- Slowed reaction time
- Poor memory
- Headache
- Hyperactivity
- Digestive problems
- Abdominal pain, diarrhea, bloating
- Hypo- or hyperglycemia
- Unexplained weight gain/loss
- Muscle weakness
- Dermatitis
- Immune deficiency
- Anemia
- Hearing, speech, or visual impairment



Facts About Organic Acids

- ✓ Organic acids panels test for the organic acids in urine that are byproducts of daily cellular metabolism
- ✓ Based on known metabolic pathways and enzyme-cofactor requirements, these organic acid markers can provide great insights in discovering underlying causes of chronic symptoms
- ✓ Organic acids testing can aid advanced providers in the detection of imbalances, toxicity, and inflammation in chronically or acutely ill patients with complex illnesses
- ✓ Alongside other diagnostic testing, organic acids profiles complete the clinical picture of root causes and guide practitioners in developing the most individual and effective interventions





Clinical Connections

- The Vibrant Organic Acids panel uses the most advanced mass spectrometry technology to assess 75 metabolic markers in urine
- The panel includes 11 subpanels and provides accurate evaluation of intestinal microbial overgrowth, detoxification, mitochondrial markers, neurotransmitter metabolism, glutathione status, fatty acid metabolism, and inborn errors of metabolism
- A complete package of the Vibrant Organic Acids Panel and Vibrant Micronutrients will provide an overall picture of the patient's whole nutrition foundation and aid the provider in intervention choices
- Organic acids can be combined with the Vibrant Fungal Antibodies panel, the Vibrant Gut Zoomer 3.0, and the Vibrant Environmental Toxins profile to get a more specific insight into the individual's root causes of inflammation



What Does the Vibrant Organic Acids Panel Include?

INTESTINAL MICROBIAL OVERGROWTH		
Yeast and Fungal Markers: Citramalic Acid 5-Hydroxymethyl-furoic Acid 3-Oxoglutaric Acid Furan-2,5-dicarboxylic Acid Furancarboxylglycine Tartaric Acid Arabinose Carboxycitric Acid Tricarballic Acid	Bacterial Markers: Hippuric Acid 2-Hydroxyphenylacetic Acid 4-Hydroxybenzoic Acid 4-Hydroxyhippuric Acid DHPPA	Clostridia Bacterial Markers: 4-Hydroxyphenylacetic Acid HPPHA 4-Cresol 3-Indoleacetic Acid
INDICATORS OF DETOXIFICATION		
Glutathione: Pyroglutamic Acid 2-Hydroxybutyric Acid	Ammonia Excess: Orotic Acid	Aspartame, Salicylates, or GI bacteria: 2-Hydroxyhippuric Acid
MITOCHONDRIAL MARKERS		AMINO ACID METABOLITES
Krebs Cycle Metabolites: Succinic Acid Fumaric Acid Malic Acid 2-Oxoglutaric Acid Aconitic Acid Citric Acid	Amino Acid Metabolites: 3-Methylglutaric Acid 3-Methylglutaconic Acid 3-Hydroxyglutaric Acid	2-Hydroxyisovaleric Acid 3-Methyl-2-oxovaleric Acid 2-Hydroxyisocaproic Acid 2-Oxoisocaproic Acid 2-Oxo-4-methylbutyric Acid Mandelic Acid Phenyllactic Acid Phenylpyruvic Acid Homogentisic Acid 4-Hydroxyphenyllactic Acid N-Acetylaspartic Acid Malonic Acid
NEUROTRANSMITTER MARKERS		
Homovanillic acid (HVA) Vanillylmandelic Acid (VMA) DOPAC Five_HIAA Quinolinic Acid	Kynurenic Acid Quinolinic Acid / Five HIAA Ratio HVA / VMA Ratio HVA / DOPAC Ratio	OXALATE METABOLITES Glyceric Acid Glycolic Acid Oxalic Acid
KETONE AND FATTY ACID OXIDATION	NUTRITIONAL MARKERS	GLYCOLYTIC CYCLE METABOLITES
3-Hydroxybutyric Acid Acetoacetic Acid 4-Hydroxybutyric Acid Adipic Acid Suberic Acid Sebacic Acid Ethylmalonic Acid Methylsuccinic Acid	N-Acetylcysteine Acid Methylcitric Acid Methylmalonic Acid (Vit B12) Pyridoxic Acid (Vit B6) Pantothenic Acid (Vit B5) Glutaric Acid (Vit B2) Absorbic Acid (Vit C)	Lactic Acid Pyruvic Acid
		PYRIMIDINE METABOLITES
		Uracil Thymine
		MINERAL METABOLITES
		Phosphoric Acid

Regulatory Statement

The general wellness test intended uses relate to sustaining or offering general improvement to functions associated with a general state of health while making reference to diseases or conditions. This test has been laboratory developed and its performance characteristics determined by Vibrant Genomics LLC, a CLIA-certified laboratory performing the test. The test has not been cleared or approved by the U.S. Food and Drug Administration (FDA). Although FDA does not currently clear or approve laboratory-developed tests in the U.S., certification of the laboratory is required under CLIA to ensure the quality and validity of the tests.