



Clinical Laboratory

3425 Corporate Way  
Duluth, GA 30096  
770.446.5483 Fax:770.441.2237

Ordering Physician:

Metamatrix Text (IT)

3425 Corporate Way  
Duluth, GA 30096

Accession Number: **A0812100005**  
Reference Number:  
Patient: **Sample Report**  
Age: **40** Sex: **Male**  
Date of Birth: **02/05/1968**  
Date Collected: **12/9/08**  
Date Received: **12/10/08**  
Report Date: **12/10/08**  
Telephone: **(770) 446-4583**  
Fax: **(770) 441-2237**  
Reprinted: **12/22/08**  
Comment:

## 0097 Organix™ Dysbiosis Profile

### Reference Ranges and Graphs

Reference ranges have been changed for some analytes due to a review of our patient population.

For some analytes that are reported as "<DL" (less than detection limit) no point is placed on the chart, and the chart indicates deciles that fall below the detection limit.

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**0097 Organix™ Dysbiosis Profile**

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

**Percentile Ranking by Quintile**

Ranges are for ages 13 and over



**95% Reference Interval**

**Bacterial - general**

Item	Value	Percentile	Reference Interval
1 Benzoate	3.8 <b>H</b>	1.1	<= 27.6
2 Hippurate	62	586	<= 1,102
3 Phenylacetate	0.09 <b>H</b>	0.08	<= 0.29
4 Phenylpropionate	<DL*	0.4	<= 0.4
5 p-Hydroxybenzoate	1.3 <b>H</b>	1.1	<= 2.9
6 p-Hydroxyphenylacetate	15	23	<= 40
7 Indican	125 <b>H</b>	77	<= 120
8 Tricarballoylate	0.55	0.85	<= 1.55

**L. acidophilus / general bacterial**

9 D-Lactate	0.4	2.1	<= 6.5
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**Clostridial species**

10 3,4-Dihydroxyphenylpropionate	<DL*	0.12	<= 0.12
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**Yeast / Fungal**

11 D-Arabinitol	45 <b>H</b>	32	<= 59
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Creatinine =200 mg/dl

\* <DL = less than detection limit

These test results are not for the diagnosis of disease. They are intended to provide nutritional guidelines to qualified healthcare professionals with full knowledge of patient history and concerns to assist in their design of an appropriate healthcare program.

## 0097 Organix™ Dysbiosis Profile

All of the compounds reported are produced by bacteria, yeast, fungi and protozoa that may colonize or grow in the small or large intestines. Dysbiosis involves overgrowth of one or more species leading to increased production of these compounds that are absorbed and excreted in urine.

### Bacterial and Protozoal Markers

Compounds 1-8 are elevated in the presence of unusual bacteria or protozoal overgrowth. This type of dysbiosis is accompanied by abnormally high populations of bacteria not found in high numbers in normal intestinal flora. p-Hydroxyphenylacetate is elevated in Giardiasis as well as in bacterial overgrowth. When carbohydrate malabsorption is present, the otherwise favorable genus Lactobacillus, or other D-lactate producing strains, can overgrow and produce toxic amounts of D-lactate. Clostridia are the apparent major producers of dihydroxyphenylpropionate.

### Yeast and Fungal Markers

Current evidence suggests that yeast and fungi are the predominant source of compound 11. D-Arabinitol is a sensitive and specific marker of invasive candidiasis.

### Clinical Significance

The most common symptoms of intestinal dysbiosis are bloating, abdominal cramping, and diarrhea. Toxic neuromuscular and hormonal interference may be present and nutritional deficiencies are more likely when these markers are elevated. Lactose intolerance, increased gut permeability, food intolerances, fatigue and immune suppression frequently accompany intestinal dysbiosis.

Yeast overgrowth causes multiple problems with the integrity of the intestinal mucosa. A variety of symptoms, including behavioral disorders and autism in children and mental and emotional disorders in adults, have been associated with overgrowth of these microbes.

Treatments for dysbiosis may involve removal of the offending organisms with antimicrobials. Dietary changes and food supplements are used for replacement of beneficial bacteria, restoration of digestive function and mucosal repair. High fiber, low sugar diet and increased water intake are important to maintain healthy intestinal ecology. A repeat test should show improvement within 90 days.

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