

# GI *fx* GI Effects Stool Profiles



***There is nothing comprehensive about a test that misses 95% of microbiota!***

*Introducing*

## **GI Effects<sup>SM</sup> Stool Profiles**

***– the latest advancement in stool analysis for truly comprehensive results.***

GI Effects is unlike any other stool analysis profile, going beyond the standard parameters for identifying gastrointestinal disorders. GI Effects uses DNA analysis to identify microbiota with 100% accuracy, including anaerobes, a previously unmeasurable area of the gut environment.

### ***Why Should You Switch to the GI Effects Stool Profile?***

- **Single Sample Collection:** GI Effects requires only one collection. This means better compliance and a faster result!
- **Faster Turnaround Time:** DNA analysis offers results in as few as 10 -14 working days.
- **Greater Accuracy:** GI Effects uses DNA analysis to improve the accuracy of your results. It also identifies anaerobes, unavailable by culture technique, which make up over 95% of the gut microbiota.
- **Increased Sensitivity:** Detects as few as 5 cells per gram– a 5000-fold increase in sensitivity over old stool technology.
- **Better Value:** All the components of traditional tests, plus pathogens and more at no additional charge.

***Continuing our commitment to innovation...  
With advanced technology and revolutionary testing***



**Individualized Solutions for Integrative Clinicians<sup>SM</sup>**

call 800.221.4640 or visit our website at [www.metamatrix.com](http://www.metamatrix.com)

### ***Why Use Stool Testing?***

Gastrointestinal function is important for general health. This includes balancing beneficial microbial flora in the gut to enhance health benefits. GI health is key in digestion, nutrient usage, and ridding the body of waste and pathogens. Poor digestion and malabsorption can lead to immune dysfunction, nutritional insufficiencies, and various disease states. Poor GI function can lead to food allergies and other toxicities.

Your intestinal tract contains significant amounts of bacteria, some beneficial, some neutral, and some that can be harmful. It is essential to know the microbial balance of your GI tract especially if you have chronic health problems. Health enhancing intestinal bacteria serve to prevent the overgrowth of potentially harmful bacteria in the gut.

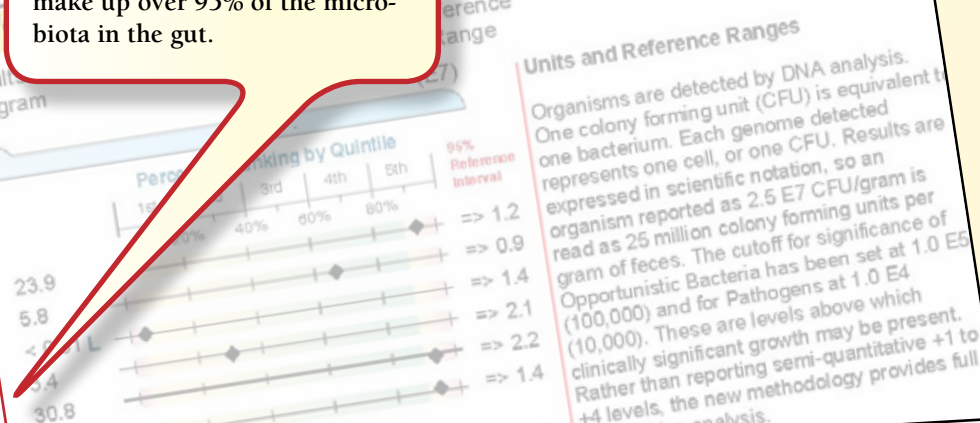


**NUTRITIONAL INSUFFICIENCIES  
METABOLIC DYSFUNCTION  
TOXICITY & DETOXIFICATION**

Anaerobes can be identified and quantified using GI Effects. These make up over 95% of the microbiota in the gut.

### Predominant Bacteria (E7)

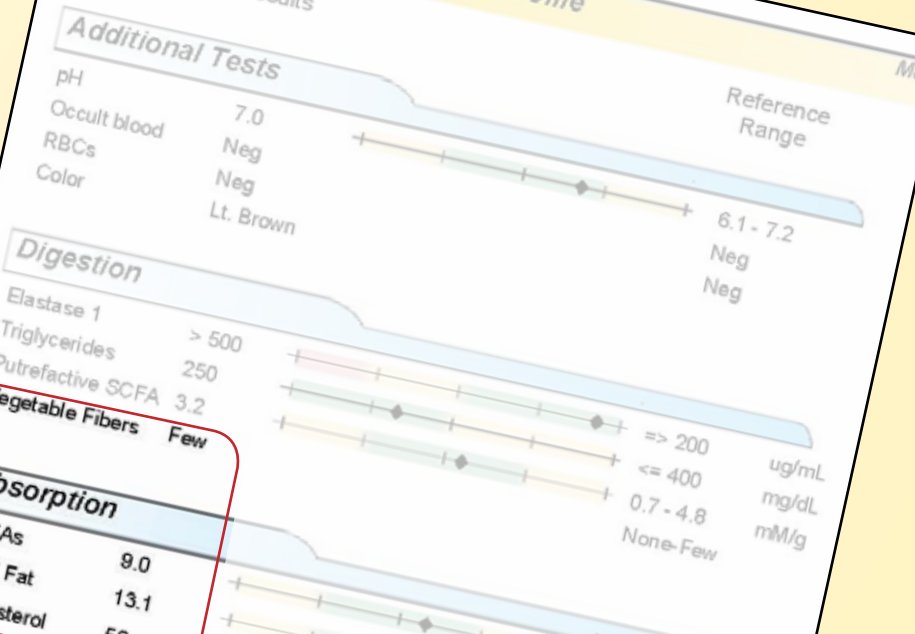
- Obligate anaerobes**
- Bacteroides sp.
- Clostridia sp.
- Prevotella sp.
- Fusobacteria sp.
- Streptomyces sp.
- Mycoplasma sp.
- Facultative anaerobes**
- Lactobacillus sp.
- Bifidobacter sp.



**Units and Reference Ranges**  
Organisms are detected by DNA analysis. One colony forming unit (CFU) is equivalent to one bacterium. Each genome detected represents one cell, or one CFU. Results are expressed in scientific notation, so an organism reported as 2.5 E7 CFU/gram is read as 25 million colony forming units per gram of feces. The cutoff for significance of Opportunistic Bacteria has been set at 1.0 E4 (100,000) and for Pathogens at 1.0 E4 (10,000). These are levels above which clinically significant growth may be present. Rather than reporting semi-quantitative +1 to +4 levels, the new methodology provides full +4 levels.

Absorption issues are indicated with elevated levels of long-chain fatty acids, cholesterol, or total fat (the sum of gut lipids).

### 2100 Gastrointestinal Function Profile



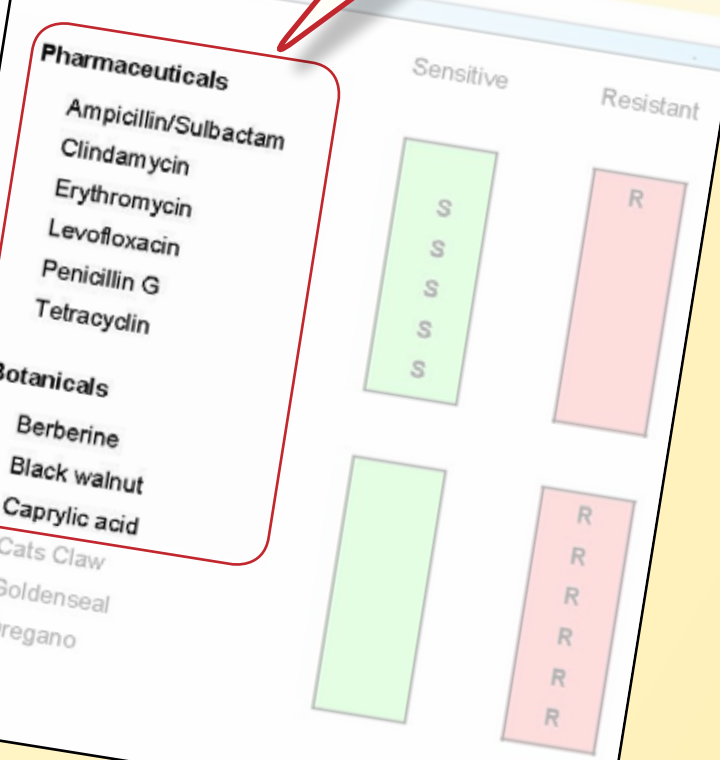
Lactoferrin (LI) is a marker of acute inflammation. It helps differentiate IBD from IBS and is a good marker for following IBD activity and treatment efficacy.

### Inflammation



Pharmaceutical and botanical sensitivities widen your treatment options.

### Microbial Sensitivity Profile



Secretory IgA is the body's primary immune defense. Deficiencies are associated with "leaky gut" and lowered resistance to infection. Gliadin-specific sIgA is a marker of gluten sensitivity.

### Immunology



No reflex/add-on costs for additional testing.

### Pathogens (E4)



An imbalance of the two predominant bacterial groups in the human GI tract, bacteroidetes and firmicutes, can lead to obesity.

### Adiposity Index



### Drug Resistance Genes



Drug resistance genes are identified to help with treatment of patients and maintenance of health.

### Parasitology





## GI Effects Stool Profile – Stool

Test # 2100 GI Function Test (includes microbiology)

Test # 2105 Microbial Ecology Test (includes parasitology)

### Specimen Requirements

Stool, 2 vials (filled per instructions), refrigerated

### Method

GC/MS, DNA technology Elisa, Automated Chemistry, Colorimetric, HPLC

### Turnaround Time

10-14 working days

### CPT Codes

* Occult Blood	82270
* Short Chain Fatty Acids, stool	82492
* Elastase, pancreatic, fecal, qualitative	82656
* Cholesterol, Stool	82715
* Long Chain Fatty Acids, stool	82725
* Secretory IgA	82784
* Lactoferrin, fecal, qualitative	83630
* pH, Stool	83986
* Triglycerides, stool	84478
Infectious agent detection by nucleic acid (DNA or RNA); <i>Candida</i> species, amplified probe technique	87481
Infectious agent detection by nucleic acid (DNA or RNA); <i>Candida</i> species, quantification	87482
Infectious agent detection by nucleic acid (DNA or RNA); <i>Staphylococcus aureus</i> , amplified probe technique	87640
Infectious agent detection by nucleic acid (DNA or RNA); <i>Staphylococcus aureus</i> , methicillin resistant, amplified probe technique	87641
Infectious agent detection by nucleic acid (DNA or RNA); <i>Streptococcus</i> group A, amplified probe technique	87651
Infectious agent detection by nucleic acid (DNA or RNA); <i>Streptococcus</i> , group A, quantification	87652
Infectious agent detection by nucleic acid (DNA or RNA); <i>Streptococcus</i> , group B, amplified probe technique	87653
Infectious agent detection by nucleic acid not other-wise specified, amplified probe technique	87798
Infectious agent detection by nucleic acid not other-wise specified, quantification, each organism	87799
Infectious agent drug susceptibility phenotype prediction using regularly updated genotypic bioinformatics	87900
* Leukocyte, fecal, semiqualitative	89055

\* Test #2100 only

Analytes Reported	#2100	#2105	Analytes Reported	#2100	#2105
<b>Beneficial Bacteria</b>			<b>Parasitology</b>	✓	✓
Obligate anaerobes			<b>Adiposity Index</b>		
<i>Bacteroides</i> sp.	✓	✓	Firmicutes	✓	✓
<i>Clostridia</i> sp.	✓	✓	Bacteroidetes	✓	✓
<i>Prevotella</i> sp.	✓	✓	<b>Drug Resistance Genes</b>	✓	✓
<i>Fusobacteria</i> sp.	✓	✓	<b>Beneficial SCFA</b>		
<i>Streptomyces</i> sp.	✓	✓	Total SCFA	✓	
<i>Mycobacteria</i> sp.	✓	✓	n-Butyrate	✓	
<i>Eubacteria</i> sp.	✓	✓	Acetate %	✓	
<b>Facultative anaerobes</b>			Butyrate %	✓	
<i>Lactobacillus</i>	✓	✓	Propionate %	✓	
<i>Bifidobacter</i>	✓	✓	Valerate %	✓	
<b>Obligate aerobes</b>			<b>Inflammation</b>		
<i>E. coli</i>	✓	✓	Lactoferrin	✓	
<b>Opportunistic Bacteria</b>			WBC's	✓	
<b>Aerobes</b>			Mucus	✓	
<i>Klebsiella pneumoniae</i>	✓	✓	<b>Immunology</b>		
<i>Bacillus</i> sp.	✓	✓	Fecal sIgA	✓	
<i>Citrobacter freundii</i>	✓	✓	Anti-gliadin sIgA	✓	
<i>Haemolytic E. coli</i>	✓	✓	<b>Additional Tests</b>		
<i>Psuedomonas</i> sp.	✓	✓	pH	✓	
<b>plus many others</b>	✓	✓	Occult Blood	✓	
<b>Pathogens</b>			RBC's	✓	
<b>Pathogenic Bacteria</b>			Color	✓	
<i>H. pylori</i>	✓	✓	<b>Digestion</b>		
<i>C. difficile</i>	✓	✓	Elastase 1	✓	
<i>Campylobacter</i>	✓	✓	Triglycerides	✓	
<i>E.H.E. coli</i>	✓	✓	Putrifactive SCFA	✓	
<b>Pathogenic Parasites</b>			Vegetable Fibers	✓	
<i>Entamoeba histolytica</i>	✓	✓	<b>Absorption</b>		
<i>Giardia</i>	✓	✓	LCFA's	✓	
<i>Cryptosporidia</i>	✓	✓	Total Fat	✓	
<b>Mycology</b>	✓	✓	Cholesterol	✓	



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