DIGESTIVE FUNCTION INTERPRETATION REPORT

Name: Jane Doe  
Gender: Female  
Age: 42  
DOB:  
Collection: Collected  
Received:  
Reviewed by:  

**Microbiome**

The microbiome refers to the collection of bacteria and fungi (yeast) that live on and within our bodies. These organisms are major players in some of the most basic life-sustaining and health-promoting processes, including digestion, immune response, hormonal balance, detoxification, mood, and even weight control. Each individual should have sufficient levels of beneficial flora and zero to few numbers of imbalanced flora. Dysbiotic flora should not be present in the stool. The microbiome changes over time, positively and negatively, when the diet changes and as overall health changes.

**Overall Microbiome Assessment**

---

**Bacteriology Culture**

**Expected / Beneficial Bacteria**

A deficiency of beneficial bacteria was detected. The population of beneficial bacteria in our colon is responsible for inhibiting the growth of pathogens, maintaining an appropriate intestinal pH, maintaining the health of the intestinal cells, and producing/activating some vitamins. Deficient levels of beneficial bacteria can cause symptoms of maldigestion. A healthy microbiome should display a variety of beneficial bacteria. The three major bacteria present in the North American gut include Bifidobacterium spp., Lactobacillus spp., and Escherichia coli. Bifidobacterium spp. is typically the most abundant and is often cultured in the 3+ to 4+ range. Lactobacillus spp. and Escherichia coli are the next most abundant and should be cultured in the range of 2+ to 4+ quantities.

**Commensal (Imbalanced) Flora**

An overgrowth of non-pathogenic commensal bacteria was detected. Commensal bacteria are usually neither harmful nor beneficial and typically do not cause any problems. Although non-pathogenic, commensal bacteria can begin to over-populate the colon and if this happens they can disrupt the normal balance of bacteria. The presence of these bacteria in abundance (3+ to 4+ range) is often indicative of poor bacterial balance. Poor bacterial balance can contribute to digestive dysfunction, imbalanced immune function, and inflammation.

**Dysbiotic Flora**

There were no dysbiotic bacteria cultured in your stool. Dysbiotic bacteria are considered pathogenic and are capable of causing harm to the digestive tract. Having sufficient levels of beneficial bacteria helps to prevent the rise of dysbiotic bacteria.
### Yeast Culture

**Normal Flora**

Non-pathogenic Yeast was detected in your stool sample. Although non-pathogenic, the presence of this yeast is indicative of poor bacterial balance. This can contribute to digestive dysfunction, imbalanced immune function, inflammation, and food reactions or sensitivities.

**Dysbiotic Flora**

There were no dysbiotic yeast cultured in your stool. Dysbiotic yeast are considered pathogenic and are capable of causing harm to the digestive tract. Having sufficient levels of beneficial bacteria helps to prevent the rise of dysbiotic yeast.

**Microscopic Yeast**

Yeast, identified microscopically, were classified as few in number. This is an abnormal finding and may indicate yeast overgrowth. Yeast overgrowth can be indicative of poor bacterial balance which can contribute to digestive dysfunction, imbalanced immune function, inflammation, and food reactions or sensitivities.

### Digestion & Absorption

**Overall Digestion & Absorption Assessment**

- **Elastase**
  
  Your pancreatic enzyme production is optimal. Elastase is a reliable indicator of total pancreatic enzyme production. Pancreatic enzymes assist in the digestion of carbohydrates, fats, and protein. Elastase values >500 mcg/g indicates optimal production of pancreatic enzyme.

- **Fat Stain, Muscle Fibers, Vegetable Fibers, Carbohydrates**
  
  Your sample had normal amounts of fat, protein products, carbohydrate, and undigested food particles (vegetable fibers). In an optimally functioning digestive system protein and fat should be mostly digested and absorbed well before the stool reaches the colon. Products of protein breakdown and fat should be minimal in the stool. A normal finding of these markers often indicates sufficient digestion.

### Inflammation

**Overall Inflammation Assessment**

- **Lactoferrin, Calprotectin, Lysozyme, White Blood Cells, Mucous**
  
  You have no evidence of inflammation. Lactoferrin and calprotectin are sensitive markers for the presence of inflammation in the digestive tract. These markers are often used to distinguish between irritable bowel syndrome and inflammatory bowel disease. Lysozyme elevations and the presence of white blood cells (immune cells) and mucous are also signs of inflammation. All of these markers were normal in your stool sample.
Secretory IgA

You have deficient levels of fecal secretory IgA. Secretory IgA is a vital part of your immune response in your digestive and respiratory tracts. It acts as a first line of defense against microbes (bacteria, viruses, parasites, yeast). Low levels increase the risk of infection, digestive dysfunction, inflammation, and increased gut permeability. A prolonged or significant stress response can suppress levels of secretory IgA.

Short Chain Fatty Acids

You have sufficient levels of short-chain fatty acids (SCFAs). SCFAs include acetate, propionate, and butyrate. These fatty acids are produced primarily by the fermentation of dietary fiber. SCFAs provide energy for colon cells, support the growth of new healthy colon cells, support healing of damaged colon cells, and protect against inflammation.

Butyrate

You have an insufficient concentration of butyrate. Butyrate is the preferred SCFA and therefore the major fuel for colon cells. It supports colon integrity and healing and has a protective effect against ulcerative colitis and colon cancer.

Intestinal Health Markers

Red Blood Cells

There were no red blood cells (RBC) identified in your stool. Red blood cells can be present with infections, inflammatory bowel diseases or other causes of bleeding including anal tears or hemorrhoids.

pH

Your pH value is normal. Fecal pH is an indicator of the health or status of the colonic digestive process. Intestinal pH is affected by fiber and protein intake, fermentative processes, bacterial populations, antibiotics, and transit time. Fiber (especially cellulose and resistant starch) and a faster transit time decreases pH, while high-protein intake and a slower transit time causes higher (more alkaline) pH.

Occult blood

There was no occult blood identified in your stool. Occult blood refers to blood in the stool that is not visibly apparent (hidden).
<table>
<thead>
<tr>
<th>Macroscopic Appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Color</strong></td>
</tr>
<tr>
<td>Stool comes in a range of colors. The normal stool color is usually light to dark brown. Stool color is generally influenced by what you eat as well as by the amount of bile — a yellow-green fluid that digests fats — in your stool. Changes in stool color can also be due to a change in transit time (constipation or diarrhea); bleeding in the intestine; diseases of the intestines, liver, or pancreas; and medications.</td>
</tr>
<tr>
<td><strong>Consistency</strong></td>
</tr>
<tr>
<td>Stools should be formed but soft and pass easily. Stool that is too hard or watery can indicate a problem within the digestive tract. Changes in bacterial balance can often lead to changes in stool consistency.</td>
</tr>
</tbody>
</table>

These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease. The results are not intended to be used as the sole means for clinical diagnosis or patient management decisions.