



GI Map Information

Who may want to run a GI Map?

- If you suffer from the following symptoms:
 - GI distress - bloating, stomach aches, gas, belching after meals, nausea, constipation, diarrhea
 - If you have had abdominal surgery and suffer from symptoms related to GI distress
 - If you have been diagnosed with gallstones or have had your gallbladder removed
 - Someone with food sensitivities or reactions (either known or suspected)
 - A skin condition such as acne, eczema or psoriasis (gut-skin connection)
 - Auto-immune condition(s) - 70% of your immune system is in your gut!
 - Mood disorder or biochemical imbalance, such as depression, anxiety, mania, bi-polar, ADD or ADHD(gut-brain connection)
 - Hormonal imbalances - Hormone conjugation in the liver allows estrogen to be deactivated and released into the bile for elimination through the digestive tract. Healthy microflora is essential for keeping these conjugated estrogens neutralized. When the GI environment is dysbiotic, de-conjugation or reactivation of neutralized estrogen can occur. This will increase the overall estrogen load, disrupt hormone ratios in the body, and often fuels estrogen dominance in both men and women.
 - If you have taken antibiotics for different conditions or other medications that alter the health of the microbiome such as birth control.

The truth is **any condition can be linked back to the gut** because this is where **digestion and absorption takes place, and the health of the microbiome is linked to our immune health.** When one is not digesting, one is not absorbing. Over time, this



can become **chronic** and **nutritional deficiencies**, as a consequence of **malabsorption**, can lead to **poor health outcomes on a number of levels**.

I consider digestion the most important healing priority because when it is not optimal, a cascade of downstream detrimental effects are created that can lead to a plethora of health issues. Testing is the only true way to know if there is an infection – be it parasitic, fungal, viral, or bacterial. Or if there is a functional issue, meaning the digestive capacity and ability to repair itself is impaired.

I believe stool testing is powerful and find it is an excellent assessment tool in my practice. “All disease begins in the gut” ~ Hippocrates

GI MAP (\$375) (stool analysis)

What is the GI Map?

- The Gastrointestinal Microbial Assay Plus (GI-MAP) was designed to assess a patient’s microbiome from a single stool sample, with particular attention to microbes that may be disturbing normal microbial balance and may contribute to perturbations in the gastrointestinal (GI) flora or illness
- The panel is a comprehensive collection of microbial targets, which shows intestinal immune function, overall intestinal health, inflammation markers, and digestive markers.
- It screens for pathogenic bacteria, commensal bacteria, opportunistic pathogens, fungi, viruses, and parasites. As well as Helicobacter pylori, Candida, Secretory IgA (sIgA), Anti-gliadin antibody, Pancreatic elastase 1, Steatocrit, Beta-glucuronidase, Calprotectin, and Fecal Occult blood.
- We can add on zonulin if we think this is necessary, it is an additional marker to assess
 - **Add on Zonulin:**
Zonulin is a protein secreted by intestinal cells that regulates intercellular tight junctions. Tight junctions are the connections between epithelial cells that make



up the gastrointestinal lining. Zonulin increases intestinal permeability in the jejunum and ileum and is considered a biomarker for barrier permeability. Tight junctions can be opened or closed, depending on the physiological need. Zonulin's role is to open tight junctions in the gut. In the case of enteric infections, high zonulin can "open the floodgates" and flush out bacteria and toxins. Certain gut bacteria and gliadin (the main staple protein from wheat) can activate the zonulin system. The intestinal barrier is a critical interface between the lumen of the gut and the internal milieu. Dysfunction of this barrier is believed to initiate immune dysfunction because it allows macromolecules from the gut lumen to pass into the bloodstream. Intestinal permeability, also known as "leaky gut," has been associated with inflammatory bowel disease, celiac disease, food allergy, irritable bowel syndrome, critical illness, autoimmune diseases, and obesity and metabolic disease. In many cases, permeability precedes disease. Zonulin regulates barrier permeability. Serum zonulin correlates with intestinal permeability and lactulose/mannitol tests for intestinal permeability. High serum zonulin has been associated with celiac disease, type 1 diabetes, insulin resistance and type 2 diabetes, cancers, neurological conditions, and autoimmune diseases.