

Wellness Plan – Tom Hanna

Microbiome Map Results

- Positive for Shiga-like Toxin E Coli stx2. We all have E coli in our guts however this strain can produce a toxin which can cause damage to our kidneys. It is often ingested via faecal contamination via undercooked meats, unpasteurized milk, juice and contaminated water, and often seen in farmers and agricultural workers. Symptoms are usually acute and can involve severe abdominal cramps and diarrhoea, and the toxins create a severe inflammatory response. High dose probiotics are indicated here. Antibiotics and antidiarrheal medications are often contraindicated as they may increase the risk of developing haemolytic uremic syndrome (HUS). Please make sure you advise your GP and gastroenterologist of this result.
- Pancreatic elastase is on the lower side. This marker reflects our ability to digest foods which we already know you are having problems with from the disaccharides test. Digestive enzyme supplementation is indicated here to help improve digestion and gut symptoms.
- Low Bacteroidetes. Bacteroidetes make up approximately 28% of the gut microbiota in a healthy human adult. A low level suggests dysbiosis of the normal microbes in the GI tract.
- Oxalobacter reading present in low levels. Oxalates are formed in the liver from the intake of oxalate rich foods such as tea, coffee, and chocolate. High levels of oxalates can increase the risk of forming calcium oxalate kidney stones. Oxalobacter formigenes is the main known bacterial species involved with breaking down oxalates in the gut and low levels are identified with a risk factor for stone formation. Treatment is managed with probiotics and reducing oxalate rich foods.

- Low levels of good bacteria including *Bacteroides fragilis*, *Bifidobacterium longum*, *Lactobacillus* species, *Lactobacillus rhamnosus*, and *Enterobacter* species. These gut bacteria are involved with healthy immune functioning, gastrointestinal tract health including the production of short chain fatty acids, and our nervous system health. Low levels can see an increase in inflammation, diarrhoea, IBS like symptoms and infections. High dose probiotics including all these strains is indicated.
- High levels of *Escherichia* species. The primary species of this type of bacteria is *e coli* and is likely reading high due to the positive reading for Shiga-like Toxin E Coli stx2.
- Short chain fatty acids on lower side, particularly propionate. These short chain fatty acids provide energy for our intestinal cells and help to regulate inflammation, they provide antimicrobial factors to help fight off infections, they protect the mucous membranes of the gastrointestinal tract, and they create peptides that facilitate appetite. Usually these short chain fatty acids are produced by our good gut bacteria, via fermentation of dietary fibre we consume. As you have low numbers of some of the good bacteria, this will be contributing to a lower level of these short chain fatty acids

Dietary advice:

- Keep introducing foods back into your diet one by one and monitor for symptoms

Prescription:

- Continue with the **Herbs of Gold Gut Care** powder you are already taking
 - 1 level scoop in 150ml water daily with food
- **Orthoplex MagGI Restore** (I would still recommend this product over the BioActiv Magneze just due to some of the extra nutrients which are indicated for gut healing and stress response – also the Magneze has a few different forms of magnesium which could contribute to softer stools)

- 1 scoop once daily in water (can mix with Gut Care powder if prefer) – make sure you have this one with or after breakfast – you want food in your stomach and you do not want to take after lunch as the B vitamins can affect sleep if taken too late in the day
 - This is a great multivitamin which will help build back up your nutrient levels as these will be quite low after having diarrhoea for such a long time
 - It will help support gut healing and digestion, skin health, nervous system support and aid in increasing your energy levels
- **Designs for Health ZymeGest**
 - Take 1 capsules up to 30 minutes before breakfast, lunch and dinner
 - A blend of digestive enzymes important for the breakdown of protein, fats and carbohydrates which will help support digestive function and the breakdown of food
- **Designs for Health – ProBioMed 50**
 - Take 1 capsule daily
 - High dose probiotic to repopulate your good gut bacteria as levels were shown to be low on your microbiome test. Ensuring we have a good gut bacteria will promote gut healing, aid in digestion, promote healthy stools, and improve immune and skin health also

Lifestyle Advice:

- Please continue to manage your stress. Stress has a huge impact on our gut health. The breathing exercises previously supplied are great, or you can look at incorporating something like yoga into your routine (then you have the benefits of breathing exercises and exercise in one!)
- Take some down time over the Christmas period to have a break and relax – give that nervous system a bit of time to reset ☺

To do:

- Please advise your GP and gastroenterologist of the Shiga-like Toxin E Coli stx2 result