Victoria
O'SULLIVAN

9 STEPS TO GUT HEALTH

What can you do to optimise your gut health?

STEP 1:

The key to optimising your biome is to feed it with the right material.

Remember we are what we eat but actually we are what our microbes eat.

So you want to eat whole food that is unprocessed.

When you are eating you are basically sending information into your body and your cells.

So you want to put the right information on your plate that sends the signal to switch your metabolism into a hormonal balancing, anti inflammatory metabolic state as opposed to an inflammatory fat storing metabolic state.

Remember that one of the major keys to controlling inflammation is to optimise your biome.

As a sidebar another crucial thing to control systemic inflammation is to reduce your waist measurement. But as we have discovered again, your rainforest will help you to achieve this.

The exciting thing is that your biome responds quickly for the better when you begin to make dietary interventions.

Basics = avoid sugar, alcohol, too many starchy carbs like pasta, bread, rice, artificial sweeteners have been shown to create dysbiosis.

Also you can't trick your brain when it comes to artificial sweeteners. It still interprets it as sugar and there is data that shows the glucose affect from consuming artificial sweeteners.

STEP 2:

Only take antibiotics if your life depends on it.

They are necessary at times but there are so many ways to build and support your immune system.

Take sinus infections as an example. They are so common and many come to see us that regularly take antibiotics for sinus infections.

In this case you want to fix the root causes of the sinus so you avoid the infection.

Many are prescribed antibiotics without thinking about the long term implications on their health because we are not educated in this and many medical practitioners are also not educated in the influence your biome has over your immune system.

Eg. One client was intolerant to dairy and eggs and was living in a damp mouldy environment. Cleared all of this which resulted in no more reoccuring sinus infections requiring antibiotics which in turn was destroying their microbiome which in turn was keeping them stuck in the negative feedback loophole from hell of recurring sinus infection because of the fact that 70% of the immune system comes from the gut ecosystem.

Especially with the increase in antibiotic resistant strains of infections.

Buy organic meat and dairy as much as possible so you have less exposure to antibiotic residue from livestock.

STEP 3:

You want to be able to eat your cleaning products meaning avoid all chemicals. There is evidence to suggest we absorb up to 60% across our skin membrane into the bloodstream.

Also spending time in nature and being exposed to the microbes in the environment also affect your overall microbiome.

STEP 4:

Fix dysbiosis aka plastic bag.

How do you know if you have it? Gert tested.

Knowledge is power and equipped with the data then you can get targeted with your therapy.

Fixing dysbiosis will ultimately affect your overall health for the better.

STEP 5:

Increase your fibre intake.

Shoot for a minimum of 40 gms per day. 6 to 7 cups of veg

2 cups with each meal would give you 6 cups.

Breakfast could include berries, apple, chia porridge.

Or an omelette with spinach, mushrooms, avo.

Fibre found in your vegetables and legumes act like prebiotics and has been shown to increase lactobacilli and bifidobacteria and high fibre diets resulted in reductions in those inflammatory cytokines we spoke about earlier.[1]

STEP 6:

Variety is key for diversity.

Eat the colour of the rainbow so you get exposed to as many plant compounds as possible.

Polyphenols are high in antioxidants they feed your microbes and are found in things like berries, cacao, apples, and yes even red wine and green tea.

Polyphenols have been shown to increase bacteroides and decrease pathogenic bacteria

When it comes to your estrobolome the broccoli family is high fibre so will feed your microbes and promote regularity but also the broccoli family is high in plant compounds that will further help with the oestrogen metabolism pathway we spoke about today.

The broccoli family include: broccoli, cauliflower, cabbage, brussel sprouts, kale and the Chinese greens.

Now, 1 in 5 actually have IBS and if you are thinking to yourself right now.

If I ate all of this I would be in digestive hell, I would be all bloated and gassy then it just means that there is a plastic bag going on.

Fix your rainforest and you should be able to tolerate more fibres.

> The Hadza people of Tanzania have a gut microbiome diversity that is one of the richest on the planet and about 40 per cent higher than the average western diet.
>
> The average Hadza person eats around 600 species of plants and animals in a year and has huge seasonal variation. They have virtually none of the common Western diseases such as obesity, allergies, heart disease and cancer. In contrast, most Westerners have fewer than 50 species in their diet and are facing an epidemic of illness and obesity.

STEP 7:

Prebiotics = fermented foods.

Increases what are called SCFA's in your gut which act like fertiliser in your gut for you to then populate your own biome.

Butyrate is a SCFA and is increased through plant foods like fibrous veg like broccoli family, fruit, nuts, seeds and legumes)

Butyrate is the main source of fuel for the cells of your gut lining so it helps to keep the barrier strong and intact and it helps to keep the inflammation down.

Prebiotic foods, resistant starches and polyphenols all act like fertiliser in your gut..

Garlic, onions, berries, mushrooms, legumes, seeds, apples, cocoa

Indole 3 lactic acid (ILA) gets converted by bacteria to a substance called IPA

ILA is super important because your gut takes it in and then there is bacteria in your gut that converts it to IPA

Indole propionic acid (IPA) is one of the strongest antioxidants in the body.

Found in fermented foods things like kimchi, sauerkraut, pickles, kefir, miso soup, natural real yoghurt that has been cultured.

Good brands would be Barambah, paris Creek or Jalna

A healthy microbiome is necessary to take in certain foods, digest them and then convert them into important molecules for your health.

Fermented foods were found to increase lactobacilli and also bifidobacteria which we will see shortly have been shown to be beneficial for depression and anxiety.

STEP 8:

Chew your food.

Remember minestrone soup as opposed to pumpkin soup in the plastic bag?

One of the reasons is because we inhale our food.

It should be liquid by the time you swallow it. Which is roughly about 28 chews per mouthful.

It is the same response up here as the tiger is chasing you, run for your life. If you have your life on the line the last thing you need in that moment of panic is your digestive system and you are definitely not thinking about reproducing.

The blood moves away from the digestive system and the repro into the circulation so that you can run for your life.

So we are in the metabolic opposite realm to digest when we inhale our food, multi-task it or watch TV, especially stressful things like the news, or a crime show.

First step is to count how many times you are chewing your food so when you have your next meal count how many times you are chewing and then essentially triple it.

STEP 9:

Probiotics

The probiotic market is exploding and it is confusing and I think that companies, sales assistants in shops play on that confusion to potentially give you a probiotic that may not be best for you.

Often formulas are thrown together that aren't tested for stability and in fact whether they play nicely together in the jar.

And many of the strains thrown into the bottle to make up the 60 bazillion haven't really been researched..

It's like a trip down to your local dog park:

You've got the Staffy
You've got your Weimaraner
You've got your German Shepherd
You've got my dog who is a mixed bag
You've got your Chihuahua
You've got the Poodle

And they are all competing for dominance and don't always play nicely together.

That is what can be happening in your probiotic capsule.

What the science is suggesting is you want to get targeted on your strains..

You want to lay the foundation by putting in your prebiotics and fermented foods and then populate your gut with what you need so the probiotic can take hold.

A 2017 systematic review concluded that probiotics (in general) significantly improve psychological symptoms: https://pubmed.ncbi.nlm.nih.gov/27841940/

Article: Antidepressive Mechanisms of Probiotics and Their Therapeutic Potential: https://www.frontiersin.org/articles/10.3389/fnins.2019.01361/full - interestingly, this article lists some of the neurotransmitters produced by different bacterial species in table 1.

There is beneficial evidence for Lactobacillus rhamnosus (LGG) and Lactobacillus plantarum 299v, for example:

- 10 billion CFU/day of 299v reduced salivary cortisol levels during acute stress: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5217173/
- An study of individuals with major depression found that 20 billion CFU/day of 299v significantly decreased kynurenine (KYN) concentration compared to placebo. The probiotic also improved cognitive function: https://pubmed.ncbi.nlm.nih.gov/30388595/ (article attached).
- LGG was found to be anxiolytic in a 2018 systematic review and meta-analysis: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6010276/
- A 2019 animal study showed that LGG reduced anxiety-like behaviour in rats: https://pubmed.ncbi.nlm.nih.gov/29173065/ (article attached).
- Therefore, you could consider **Ultra Flora GI Soothe** or **Ultra Flora GI Regulate** alongside an LGG-containing probiotic (e.g., **Ultra Flora LGG, Ultra Flora Intensive Care**).

PROBIOTICS AND BREAST CANCER/OESTROGEN METABOLISM

This article discusses the estrobolome (involving high beta glucuronidase activity in gut) and increased risk of oestrogen receptor positive breast cancer: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5017946/

- Increased fecal ß-glucuronidase activity has been reported in healthy humans consuming diets high in fat or protein whereas fiber consumption decreases activity.

This 2019 article looks at the effects of various probiotics in breast cancer: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6775487/ - this includes Lactobacillus plantarum and Lactobacillus rhamnosus.

Emerging Roles of Probiotics in Prevention and Treatment of Breast Cancer: A Comprehensive Review of Their Therapeutic Potential - article attached.

PROBIOTICS AND METABOLISM/INSULIN RESISTANCE

Probiotics Contribute to Glycemic Control in Patients with Type 2 Diabetes Mellitus: A Systematic Review and Meta-Analysis: https://pubmed.ncbi.nlm.nih.gov/33126241/ - this systematic review found that probiotics reduced fasting blood glucose more than the placebo/no intervention, with a mean difference (MD) of -12.99 mg/dL (95% CI: -23.55, -2.42; P value: 0.016) over the short term; and -2.99 mg/dL (95% CI: -5.84, -0.13; P value: 0.040) over the long term. There was also some evidence for reduced HbA1c in the probiotics group at both short term (MD: -0.17; 95% CI: -0.37, 0.02; P value: 0.084) and long term (MD: -0.14; 95% CI: -0.34, 0.06; P value: 0.172).

There is evidence for the specific strain Bifidobacterium animalis ssp lactis B-420™:

- B-420 plus a prebiotic reduced abdominal adiposity: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5264483/
- B-420 can control weight gain in overweight and obese patients: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7230722/
- In an animal study, B-420 reduced high fat diet-induced weight gain and diabetes in mice (improved glucose tolerance): https://pubmed.ncbi.nlm.nih.gov/25062610/
- Metagenics product: **Ultra Flora MetaControl** - https://www.metagenicsinstitute.com.au/tech-data/b420-hn019-weight-control

Probiotics Lactobacillus rhamnosus (LGG®) and Bifidobacterium animalis ssp lactis (BB-12®) have also been found to improve glucose metabolism in pregnant women: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6462661/

- Metagenics product: **Ultra Flora Mother and Baby** - https://www.metagenicsinstitute.com.au/tech-data/strain-specific-probiotics-pregnancy