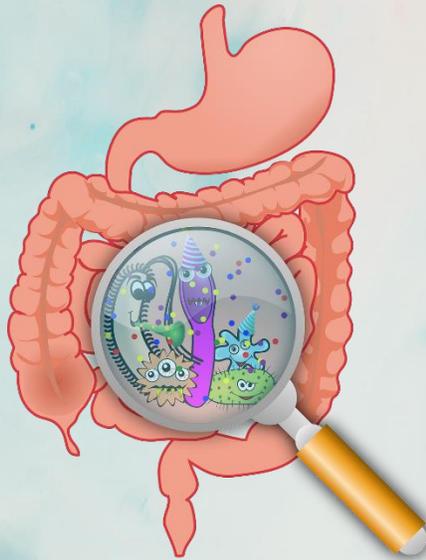




THE HOUSE OF
FUNCTIONAL MEDICINE

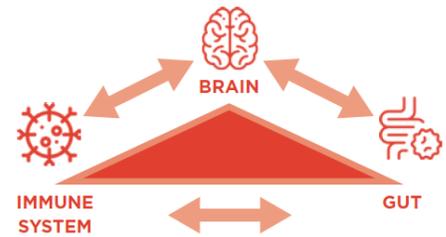
**SCIENCE BASED
DIY SECRETS TO TREASURE
YOUR GUT HEALTH**



**for overall
Vitality & Resilience**

Treasure your Gut Health for overall Vitality & Resilience

As you can see in the triangular diagram, a healthy gut is key for a healthy brain and a healthy immune system, in other words: a healthy gut is a key pillar for overall good health and vitality. So what can you do to keep your gut happy and your overall health in good shape?



Meet your gut

The gut is the passage that starts at the mouth and ends at the anus. We can see this space as a tube. The inside of the tube is actually outside our body even though the tube itself is entirely inside our body. Much like the hole in a doughnut is not part of the doughnut. Ever thought of this before?

The intestinal lining is very delicate, it's only one cell thick! This is the border that keeps our body protected from unwanted invaders and at the same time lets the good stuff that feeds our body in. Pretty important job, wouldn't you agree?!

Some key things that our gut does for us

- **Gatekeeper: keeping out the bad and letting in the good** which can only happen with a healthy gut lining. When the lining gets leaky (aka leaky gut), things start getting messy. We can experience the result of leaky gut in places far distant from the gut (e.g. headaches or joint pain).
- **Digestion of the food we eat.** Stomach acid, bile from the liver (expelled into the intestine by the gall bladder) and digestive enzymes produced by the pancreas play a key role here, not to forget the contribution of our microbial friends.
- **Absorption of nutrients** from our food into our body (once the nutrients pass the intestinal lining into the blood stream, they are inside our body)
- **Moving the contents of the gut in the direction of the exit** and sweeping down any debris when no food is in the system (peristalsis and migrating motor complex, which I like to call the cleaning crew, are taking care of this)
- **Immune central: over 2/3 of our immune system resides in the gut.** Makes sense, considering that the gut lining comes into contact with a lot from the outside world (food, toxins, chemicals, microbes, pathogens, heavy metals, ...) so this is where we would want to strategically position a big part of our immune soldiers to quickly identify and react to a stranger/danger situation.
- **Communication with the brain via the vagus nerve.** More communication goes from gut to brain than the other way around, good gut-brain-axis function is key for overall health and feeling great.
- **Housing our gut microbial friends who help regulate many functions in our body,** including creation of vitamins, controlling immune function, supporting brain function as well as regulation of our metabolism and weight.
- **Detoxification & elimination.** The liver takes care of phases 1 and 2 and, the gut takes care of phase 3. Going to the toilet, yes, that's like taking out the garbage bag to keep things neat inside!

Clues that your body may be giving you about the status of your gut

- **Healthy bowel movements (BM)?**

- **Do you have a 'normal' BMs?**

Fully formed 'sausage' causing little need to wipe.

Check the [Bristol stool chart](#) for visualisation of 'normal'.

- **Do you have a BM at least once a day?**

Remember we want to take out the garbage to keep things neat inside but we also want enough time for good nutrient absorption, so loose stool with fast transit is not ideal either.

- **Is the colour a shade of brown?**

Other possibilities with different possible causes: clay like colour, nearly white, green, very dark to almost black or bright red. More detail [here](#).

- **Does the stool float or sink?**

Floating may suggest poor fat digestion.

- **Do you see undigested food particles?**

If so, do you only see things like pieces of nuts or corn? Are you chewing your food properly or leaving the hard work to the stomach and intestines? If you see more undigested food particles, this may point to poor digestive secretions which good chewing can actually help improve.

- **Feeling heavy, signs of indigestion, belching, burping acid reflux?**

These can all be signs of poor digestion which is often a result of eating while feeling stressed. When we are stressed, our body's chemistry is set to fight or flight. This leads to all energy being directed to the extremities which would allow us to fight or flight. In other words the energy is drawn away from the digestive organs which obviously impacts our digestive power: low stomach acid, low bile, low digestive enzymes and low motility.

- **Feeling bloated after meals? Gas, flatulence, cramping?**

Only after certain types of foods? E.g. after certain vegetables? After animal protein? After a very fatty meal? Or do you produce gas no matter what you eat? These are all clues as to what may be causing it. Poor stomach acid, low digestive enzymes, low bile release, small intestinal bacterial overgrowth, ...

- **Stomach or intestinal pain?**

Investigation of pain should always involve a medical doctor. Stomach pain may point to inflammation or an ulcer, an overgrowth of the bacteria helicobacter pylori could be involved.

- **Mood issues, brain fog, weight management struggles, headaches, joint pain, skin problems?**

Yes, they can all be related to the gut. Remember the gut lining is only one cell thick and when our lifestyle, environmental factors, medication or infections put that precious border under pressure it can become leaky. When it's leaky, it will let things pass from the gut (outside our body) into our blood stream (inside our body). Blood is pumped around the entire body, so whatever came in, is now in full circulation and can cause reactions of the immune system in places far distant from the gut.

**Diet
Nutrients**

**Stress
Management**

**Sleep
Rest**

**Other
Support**

Strategies to treasure our gut, so it can support our overall vitality & resilience:

Diet/Nutrients

- **Choosing for a clean, whole food diet – organic as much as possible**

Our gut based immune soldiers like clean foods, foods that our grandmothers would recognise as food. These are typically single food items (the opposite of processed foods) and they also come with the precious nutrients that our gut wants to wave through at the border so that all body systems can get the supplies they need to function well. Think of vegetables, fruit, (animal) protein, and, if your body agrees, legumes, nuts and grains. Organic as much as possible to avoid toxins and hormone disruptors. Extra bonus for overall health: Eat the colours of the rainbow.

- **Including sufficient fiber in our diet**

Fiber is a type of carbohydrate that we cannot digest. Our microbial friends however, thrive on fiber (pre-biotics). When they ferment fiber they produce [short chain fatty acids](#) which are very important for our overall health, keeping the precious gut lining healthy and promoting immune tolerance. Resistant starch does not spike blood sugar or insulin. “Women should try to eat at least 21 to 25 grams of fiber a day, while men should aim for 30 to 38 grams a day.” [Source](#). Check out [this article](#) for good food sources of fiber.

- **Reducing sugar/refined carbohydrate intake**

Sugar (as well as artificial sweeteners) impacts the composition of our microbiome which can promote systemic (low-grade) inflammation, the development of metabolic dysfunction as well as weight gain. “...high sugar intake may stagger the balance of microbiota to have increased pro-inflammatory properties and decreased the capacity to regulate epithelial integrity and mucosal immunity.” [Source](#) Sugar hides in many things, check your food and drink labels carefully! (Daily recommended maximum: 6 tsp for women, 9 tsp for men).

Stress management

- **Developing a habit of using stress management techniques**

Stress causes the brain to signal production of cortisol and cortisol suppresses the immune system, reduced immune function in the gut leads to dysbiosis (an imbalance of the gut microbial community associated with disease)! Dysbiosis can also lead to leaky gut. Find something that works for you, e.g. [breathing techniques](#), going for walks in nature, gratitude, putting your bare feet on grass or soil, meditation (check out [free apps](#)), ...

- **Eating in a relaxed state of mind / taking some deep belly breaths before a meal** (e.g. [box breathing](#))

Good digestion is key for the body to make use of the nutrients from good food choices and good digestion is dependent on energy flowing to the digestive organs when we eat. This only happens when we are in a rest and digest nervous system mode (vs. in a fight or flight mode which will direct the energy to the extremities, away from the digestive organs). Good digestion and healthy gut lining are also key for avoiding food sensitivities.

Sleep

- **Prioritising sleep / going to bed on time to allow for 7 hours of sleep or more**

The importance of sleep as a key pillar for good health is greatly underrated. Sleep is the time for the body to repair, restore, replenish and detoxify. It is also a natural time of fasting. During the night our cleaning crew (the migrating motor complex) can perform multiple shifts of sweeping down any debris.

Remember, the cleaning crew only starts to work when the digestive tract is empty, so with food in the system, the crew is hanging out playing cards rather than keeping things neat and clean. Ideally we give the digestive system a break of at least 12 hours between the last meal of the day and the first meal of the next day. If you have trouble sleeping, try to have your last meal 3 hours before going to bed.

OTHER SUPPORT

- **Moving our body**

“Recent studies suggest that exercise can enhance the number of beneficial microbial species, enrich the microflora diversity, and improve the development of commensal bacteria. All these effects are beneficial for the host, improving its health status.” [Source](#)

- **Choosing wise supplement support**

Even with making healthy food choices our bodies often need extra nutrient support. Here are a few examples why that is: Due to modern farming and top soil erosion, there are less minerals in the ground, so also less minerals in the plant foods we eat. Elevated stress levels burn through certain vitamins which can increase the need for nutrients beyond what we can get from food. In the darker months of the year we cannot make vitamin D from the sun. We may not eat enough fish to get sufficient omega 3s from our diet.

Simply scan on the link or QR code on the next page to access our list of suggested supplements.

Our fundamental gut support supplement suggestions

- **Spore based probiotic (MegasporeBiotic)**

“... the biggest advantages of a “spore-based” probiotic is that it is composed of endosomes which are highly resistant to acidic pH, are stable at room temperature, and deliver a much greater quantity of high viability bacteria to the small intestine than traditional probiotic supplements.” [Source](#)

- **Mucilaginous herbs (GI Encap)**

Aloe Vera, Deglycyrrhizinated Licorice, Marshmallow Root, Slippery Elm – soothing to the delicate gut lining, check benefits of the ingredients [here](#).

- **Prebiotic, food for our microbial friends (Bio.Me Prebio PHGG)**

PHGG has been shown to be well tolerated even by sensitive individuals with IBS/SIBO

“Dietary fiber plays a very significant role in modifying the intestinal microbiota, exerting prebiotic effects such as stimulating the growth and/or function of beneficial intestinal microorganisms.” [Source](#)

- **Vitamin D**

“...vitamin D deficiency, which alters the microbiome and integrity of the gut epithelial barrier”. [Source](#)

- **Magnesium**

Magnesium is our relaxation mineral and it’s also critically important to convert vitamin D into its final form hence we recommend to start this about 5 days prior to introducing vitamin D to replenish it first. [More](#)

We know that finding good quality supplements can be a time consuming endeavor. Be aware that a high price does not necessarily mean good quality. **To save you time and help you choose with confidence, we have shortlisted our top supplement recommendations from one single supplier.**

In our selection we took into account different quality markers (well absorbed forms of active ingredients, allergy information, and purity) as well as price in order to give you good value for money options.

**Click or scan the QR Code
to access list and shop now**



If you would like more personalised support with building resilient health or healing from very apparent gut problems, don’t hesitate to contact us at www.functionalmedicine-europe.com.

We invite you to join our community [here](#).