



# Gut Microbiome

**Our guts are hosts to trillions of tiny organisms, collectively known as the ‘microbiome’.**

This collection of bacteria, fungi, viruses and yeasts weighs around two kilos and lives in commensal harmony with us. They need us to host them and we need them in order to survive. We live completely co-dependently with our microbiome and like any relationship, it can be a healthy or less healthy existence.

#### **So how does the microbiome affect our health?**

- 70-80% of the immune system is in the gut. The trillions of bacterial microbes are in constant communication with the body and produce chemical responses to meet our needs, protecting us from ingested pathogens and creating immune cells to respond to potential threats to our health.
- Non-essential vitamins (the body can produce them so they don't need to be supplemented) and minerals are produced in the gut.
- Our microbiome plays a large role in promoting detoxification and some signs of imbalance may include constipation, loose stools, bloating or discomfort.
- Short-chain fatty acids, produced in the large intestines when we ingest dietary fiber play a huge role in modulating our metabolism, affecting fat burning, energy levels and clear-headedness.
- There is increasing evidence that numerous neurotransmitters (brain chemicals and nervous system messengers) are synthesized in the gut. Serotonin, dopamine, norepinephrine and gamma-aminobutyric acid (GABA) are synthesized in the microbiota and then travel via the vagus nerve to the brain where they affect our mood, motivation and mental health.

#### **Imbalances in our microbiota may result in:**

- Eczema and other skin conditions
- Anxiety, depression and brain fog
- Movement disorders like Parkinson's Disease
- Autoimmune disease
- Allergies and hyper-sensitivities
- IBS syndrome symptoms

#### **How can we look after our microbiome so that it will look after us?**

- Avoid added sugars and processed foods. These feed the unhelpful bacteria and encourage inflammation and disease in the body.
- Eat prebiotic and fermented foods, which sow the seeds for a flourishing microbiome.
- Stay hydrated and try to minimize stress.
- Diversity is key. We want our microbiome to be as diverse in species as possible. Diversity indicates balance and good health. A nutritionist will encourage you to consume a wide variety of fruits, vegetables, of every colour, throughout the week.
- Consume beans, legumes and whole grains, which feed the beneficial bacteria.