

The link between gut health and mood



There is a strong but intricate communication network between the gut (your digestive system) and the brain. It is known as the Gut-Brain Axis. It works in both directions meaning that your mood can impact the functioning of your gut, but also your gut health and the make up of your microbiome can have a huge influence on your mood.

The food connection

Many already understand that the food we eat can impact our mood. Much of that influence is due to the impact that food has on our microbiome. Our microbiome is made up of the trillions of bacteria that live in our large intestine and they are crucial to health. Our microbiome is hugely influenced by food. Eating a meal of ultra processed snack or takeaway food will disrupt the balance of the different species that live in the gut, and this can happen in as little as a few short hours. It is surprising how dynamic and easily influenced this microbiome is.



Other influencing factors

What many don't know is that stress, physical activity (or inactivity) and even lack of sleep have also been shown to cause a detrimental shift in the make up of our microbiome.

An unhappy microbiome can cause havoc

When these microbes are unbalanced (a situation termed dysbiosis) it can have a number of impacts on the body both within the digestive tract and systemically. It can either speed or slow the movement of contents through the gut, resulting in diarrhoea or constipation. Dysbiosis can heighten pain sensitivity. It can increase inflammation and it can even alter hormone balance and reduce immune resilience. All of these dysfunctions can impact our cognitive wellbeing and mood.

How do the bacteria in our gut influence our mood?

The good bacteria in the gut feed on the fibre we eat and produce short chain fatty acids (SCFAs). These SCFAs inhibit the growth of harmful bacteria, reduce inflammation, support immune regulation and help regulate appetite, metabolism and glucose levels. These SCFAs also travel in the blood stream to the brain where they influence memory and learning processes.

Certain gut bacteria such as *Bifidobacterium* and *Lactobacillus* produce neurotransmitters. These then travel to the brain either through the blood stream or via the major vagus nerve. In the brain, these neurotransmitters can influence mood, memory, appetite and sleep. Serotonin is one of the main neurotransmitters impacting mood and most people are surprised to learn that around 80% of our serotonin is produced in the gut.

The leaky gut connection

The intestines form a barrier between the gut contents and the blood stream. This barrier prevents harmful substances from the gut entering the blood stream. This barrier is not always 100% compliant and when control of this barrier breaks down, we develop intestinal permeability (or leaky gut), allowing inflammatory and mood disrupting triggers to be released. Certain inflammatory foods and even stress can activate the immune cells in the body which damage and breakdown the integrity of this gut lining.



How to keep your gut happy

Essentially good gut health equals good mental health. Eat foods which feed the good bacteria of the gut such as high fibre fruits and vegetables and keep microbiome disrupting foods such as ultra processed snacks and take away foods out. Exercising, managing stress, getting good sleep and maintaining social connections will also directly benefit gut health. A naturopathic treatment plan can put you on the right path to the best way to support your gut with natural herbal and nutritional supplements, probiotics, digestive aids and dietary and lifestyle changes.