



# Gut Feelings

*In the inner sanctum of our colon exists a wonderfully complicated eco system, which is a large community of living organisms, known as our microbiome. The Gut Foundation's General Manager Margaret Fitzgerald tells us about the relationship between the gut biome, the vagus nerve and the brain, and why we should make healthier food choices.*

The molecular biologist Joshua Lederberg explains it "as all the microorganisms, bacteria, viruses, protozoa, and fungi, and their collective genetic material present in the gastrointestinal tract." In reality, there is a vast city of trillions of little creatures at work down there in your gut.

Through research, our scientists and health professionals now know a lot more about our microbiome

than we used to.

They know for example that it can regulate your body weight, and that it not only protects your gut from invaders but also regulates your entire immune system. They also know that our biome takes food our body can't digest and turns it into hormones and other chemicals.

New research in the last five years has shown that there is a strong link between our gut biome, our immune system and

our nervous system including the brain.

As microbes in our gut digest our food they make tiny parcels called short-chain fatty acids. These trigger messages which travel to the brain via the long vagus nerve. The vagus nerve is known as the "wandering nerve" because it has multiple branches that diverge from two thick stems rooted in the cerebellum and brainstem that wander to the lowest viscera of your abdomen, touching your heart and most major organs along the way.

I really enjoyed a recent trip to Australia where I attended a new exhibition at the Melbourne Museum which collaborated with researchers from Melbourne Neuropsychiatry Centre. The exhibition, titled 'Gut Feelings: Your Mind, Your Microbes', explored the connection between our brains and our guts. One of the wonderful headlines used to engage their audience was "eating for trillions". This was followed up with the following "Your gut is awash with microbe

including helpful bacteria, fungi, viruses and more. They are with you always. These trillions of friends are constantly digesting food, making nutrients and talking to your body. In return, you provide the perfect home for them. When you eat, they eat, so what you eat is important. You encourage the good microbes to flourish and the bad ones to die off, simply by eating well. It's up to you to keep them in balance."

I am now even more aware of the importance of making healthy food choices to encourage the population of good ones to amass and shut out the unhealthy ones.

Here in Canterbury we have medical scientists working on understanding more and more about the gut and you can help them.

Donate to gut research and you are ensuring our medical and scientific experts learn more and more about helping you to keep a healthy body through a healthy gut biome. <https://www.thegut.org.nz/get-involved/donations/>