

Marika Day's

Love Your Gut Month



In the last instalment of Love Your Gut Month, we're looking at the connection between the gut and the brain.

Your gut and brain communicate

Every millisecond, your gut and brain are communicating. The brain sends signals to the gut, and the gut tells your brain when it's time to eat, when you're feeling unwell, and loads of other information.

The dialogue is complex. They communicate through a variety of pathways, including hormones and nerve signals.

The gut can also function independently

Your gut has its own nervous system, called the 'enteric nervous system'. Although it works with your central nervous system, it can also function independently.

So it's important to treat your gut as you do your mind – with great care.

It's bi-directional: each one influences the other

We know that the brain can affect your physiology (hello, anxiety). But it's now becoming clear that the gut can influence other parts of your body, too.

This means that your gut can affect your brain. It works both ways.

Mood and food

How your diet can impact how you feel

You've no doubt heard the phrase 'sick to my stomach'. This is because the gut and brain are inherently linked, and things like stress can influence how you feel physically.

But it's a two-way street: your microbiome can influence your behaviour. Meaning when your gut feels better, your brain often responds with positive emotions.

A diverse microbiome is therefore beneficial to your overall wellbeing. Introducing things like good dietary fibres – such as wholegrains, fruits and vegetables – will have a positive impact on your mood.

But go slowly. Introducing a lot of fibre at once may, ironically, make you feel temporarily sick. Gradually add it to your diet, aiming eventually for 30 grams per day. And remember to drink lots of water to avoid constipation.

Glossary

Hormones: signalling molecules produced by our glands that regulate physiology and behaviour.

Nerve signals: the way nerve cells (aka neurons) communicate with one another.

Nervous system: sends signals around the body; comprises central nervous system (CNS – brain, spinal cord, nerves) and peripheral nervous system (PNS – connects the central nervous system to limbs and organs). The enteric nervous system can be seen as a part of the PNS, controlling the gastrointestinal system.

Mindful eating checklist

When you eat in a slow and relaxed way, you tend to feel more satiated with less food. It also helps when you can actually see how much food you've eaten!

- ✓ **Sit down at a table.** Try not to eat at your desk, on the go or in the car. And avoid distractions like having the TV on while you're eating.
- ✓ **Eat your food with crockery and utensils.** Avoid eating directly out of a packet. Properly setting out your food helps you slow down and enjoy your meal, and monitor how much you're actually eating.
- ✓ **Before you eat, set aside a minute for controlled breathing.** This is a good technique for people suffering from digestive problems or anxiety. Even if you're not feeling particularly stressed, controlled breathing will help prepare your gut for the digestion process. If you're new to this technique, we've got a helpful exercise in this pack to get you started.
- ✓ **Chew your food slowly.** Around 15 to 20 chews per mouthful before you swallow, to be precise.
- ✓ **Enjoy your food.** Focus on the flavours and textures and take time to enjoy the ritual of eating. A meal should give you literal and emotional fuel.

Time for the loo?

As we know, the brain can influence your physiology – digestion included.

Although there's no set standard for how much a healthy person should poo (it could be anywhere from three times a day to once every three days), there are usually reasons for things becoming irregular.

Stress, anxiety and depression can affect your bowel movements: from the odd nervous poo to diarrhoea, constipation and nausea. Best to see a doctor if symptoms persist.

Stress can affect your ability to digest properly, as it directs your autonomic nervous system – which controls the ‘fight or flight’ response – towards things like raising your heart rate.

Here are three things that can help reduce stress:

1. Yoga

The benefits of yoga extend beyond just increased flexibility. It's easy to get into. Just find a local studio and head in. The instructor will take care of the rest.



2. Meditation

The power of meditation has been observed over centuries. Like most things, it takes time and practice to get it right. But there are lots of options that make getting into meditation easy. They range from smartphone apps with short tutorials to in-person classes with set regimes.



3. Breathing

When you're stressed or anxious, your breathing pattern tends to change for the worse. In these situations, controlled breathing can lower your heart rate, reduce stress hormones and make you feel calm.



Marika's guide to one-minute controlled breathing

Before every meal, or periodically throughout the day, set aside a moment to focus exclusively on breathing. Start by taking a deep breath in through your nose, **counting to four** as you inhale. Hold your breath for a moment, then slowly exhale through your mouth, **counting to eight** as you breathe out. Repeat for **one minute**.

Quick comfort

Why foods like chocolate provide a boost of happiness

It's true that chocolate contains happy properties like phenylethylamine, the 'love compound', and tryptophan, an amino acid that helps create serotonin. Sugar also triggers a reward pathway, releasing chemicals like dopamine.

That's the nice bit. But excessive sugar consumption can lead to a series of problems, ranging from obesity to depression.

So, while the odd treat is fine, quick comforts like milk chocolate are just that: quick.

Instead of relying on a short boost (and inevitable crash), look to incorporate a wide array of foods in your diet.

The short-chain fatty acids created by your body when it breaks down fibre have been linked to reduced levels of stress – plus, fibre-rich foods are great for the gut.

High-protein foods – like fish and tofu – also contain tryptophan in addition to omega-3 fatty acids, which have been shown to have a positive effect on mood.

A diverse microbiome is therefore beneficial to your overall wellbeing. Introducing things like good dietary fibres – such as wholegrains, fruits and vegetables – will have a positive impact on your mood.



Plate composition

Set yourself up for success with mindful eating by paying attention to what you put on your plate. Being present begins the moment you sit down at the table.

Half of plate: salad or vegetables

Quarter of plate: whole grains or starchy vegetables, such as sweet potato, potato or corn

Quarter of plate: protein source, including meat or legumes (such as lentils)

Middle of plate: a little circle of healthy fat, such as a tablespoon of olive oil

Glossary

Phenylethylamine: organic compound that acts as a CNS stimulant.

Tryptophan: an essential amino acid and precursor to serotonin; found in foods like salmon, spinach and eggs.

Serotonin: a neurotransmitter popularly viewed as a 'happy chemical'; it is also thought to affect reward, learning and memory.

Dopamine: a hormone and neurotransmitter, popularly understood as the main pleasure chemical.



Marika's serotonin smoothie

Ingredients:

- 1/2 cup Greek yoghurt
- 1/2 cup almond milk
- 1 banana, chopped
- 1 tbsp pepitas
- 1 tbsp sliced almonds
- 1 tbsp hemp seeds
- 1 tbsp chia seeds
- 1-2 dates
- 1 handful baby spinach
- 1/4 tsp salt
- Small amount of cinnamon, vanilla, maple syrup or honey (optional)

Directions:

- 1 Blend ingredients to a smooth consistency.
- 2 Serve with extra sprinkle of chia seeds on top (optional).

Food and mood diary one

Here's a little homework assignment. Track your eating habits for a day, indicating how you feel after each meal – both mentally (for example: calm or stressed or tired) and in your gut (for example: full or light or bloated).

It can be helpful to have a better sense of how you feel after you eat. Once you've taken note, you can think about any changes you might like to make.

Breakfast

What I ate: _____

Where I ate: _____

My mood: _____

My gut: _____

Lunch

What I ate: _____

Where I ate: _____

My mood: _____

My gut: _____

Dinner

What I ate: _____

Where I ate: _____

My mood: _____

My gut: _____

Snacks

What I ate: _____

Where I ate: _____

My mood: _____

My gut: _____



Food and mood diary two

It's helpful to chart your dietary changes over the weeks, and whether new foods are affecting you for better or worse.

For the next month, eat and note down one new food each week. It could be something you've had in the past but isn't part of your regular diet. Or it could be something completely new and different.

Then describe its effect on your gut and brain. Do you feel light and energetic? Or bloated and sluggish?

Week one

New food: _____

How I felt: _____

Week two

New food: _____

How I felt: _____

Week three

New food: _____

How I felt: _____

Week four

New food: _____

How I felt: _____

For more info on dietary fibre intake, see daa.asn.au

For more info on the gut/brain connection, see foodandmoodcentre.com.au