

# Gut Glossary

## CFU (Colony Forming Units)

A measure of how many live, active microbes are in a product. It tells you how many bacteria are capable of forming colonies – in other words, how many are alive enough to do their job. Typical doses range from 1 to 20 billion CFU. But more isn't always better – the right strains at the right dose are what count.

## Disorders of Gut–Brain Interaction (DGBIs)

The modern name for what used to be called functional gut disorders (FGDs). These are conditions where the gut looks healthy on tests, but the communication between the gut and brain isn't running smoothly. Think of it like a Wi-Fi connection issue – the gut and brain are both fine, but the signal between them keeps dropping out, leading to pain, bloating, or changes in bowel habits. Common examples include Irritable Bowel Syndrome (IBS) and functional dyspepsia. DGBIs involve a mix of factors: gut–brain signalling, microbiome changes, stress responses, and gut sensitivity. They're real, multifactorial, and highly individual, but treatable with the right gut–brain approach.

## Dysbiosis

This is the science-y term for when your gut microbiome is out of balance. It can be triggered by stress, antibiotics, poor sleep, or low fibre diets. Dysbiosis has been linked with over 70 chronic conditions – but the good news is, the microbiome is dynamic and can often be rebalanced.

## Enteric Nervous System (ENS)

This is initially why your gut was called your “second brain” – a vast network of millions of neurons lining your gut wall that can function independently from your brain. It controls digestion, senses gut discomfort, and communicates constantly with your central nervous system (including your brain) via the vagus nerve.



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## Estrobolome

The group of gut microbes involved in metabolising and recycling oestrogens. A balanced estrobolome helps maintain healthy hormone levels and may play a role in conditions like PMS, PCOS, endometriosis and menopause symptoms.

## Eubiosis

The opposite of dysbiosis – a happy, balanced microbiome where your beneficial microbes thrive and keep less helpful ones in check. There is no single “perfect” microbiome; eubiosis varies across individuals.

## Functional Dyspepsia

A common digestive condition causing upper gut discomfort (like bloating, nausea, or fullness) without a clear structural cause. Often linked to gut–brain axis sensitivity and lifestyle factors such as stress, sleep and diet. It has more recently been categorised as a condition within the umbrella term ‘Disorder of the Gut-Brain Interaction’ (DGBI).

## FODMAPs

Short for *Fermentable Oligosaccharides, Disaccharides, Monosaccharides and Polyols*. These are natural carbohydrates—many of which are types of fibre—found in foods like onions, garlic, apples, and beans, that can be poorly absorbed in the small intestine. In most people, they’re prebiotic (great fuel for gut microbes). But in those with sensitive guts (like IBS), the fermentation and extra fluid they draw into the lower gut can trigger bloating or discomfort.

FODMAPs aren’t “bad”, in fact, they’re generally beneficial. Some people’s guts simply need a period of rest, followed by structured reintroduction, before they can tolerate them comfortably.



## Gut–Associated Lymphoid Tissue (GALT)

A key part of your immune system that lives in your gut lining. Around 70% of your immune cells are found here, making your gut the body’s largest immune organ.



## Gut–Brain Axis

The constant two-way communication between your gut and brain through nerves, hormones and microbes. This is why your gut can influence mood, and why stress can influence your gut.

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## Irritable Bowel Syndrome (IBS)

A functional gut disorder affecting how your brain and gut communicate, leading to symptoms like pain, bloating, and altered bowel habits. It's not "in your head" – it's often linked to gut sensitivity, stress, and changes in the gut microbiome. Research has progressed significantly over the past decade in this area, and we now know that specific diet strategies and non-diet approaches that target the gut-brain axis can make a real difference.

## Leaky Gut (Increased Intestinal Permeability)

A term used when the gut barrier becomes more permeable, allowing larger chemicals to pass through. While "leaky gut" is often overhyped online, increased permeability is real (although it is generally a symptom rather than a condition in itself) and is linked to inflammation, poor diet, alcohol, and stress. But research shows that once the trigger (e.g. stress) is removed, the gut lining will repair with a gut-nourishing diet.

## Metabolome

The metabolome is the collection of chemicals and compounds produced by your microbes as they go about their work – including short-chain fatty acids, vitamins and neurotransmitters. Think of it as the useful 'by-products' your microbes create – similar to the warmth from a fire or aroma from cooking, supporting health beyond basic digestion.



## Microbes

Microbes (or microorganisms) are tiny living things invisible to the naked eye. They're not plants or animals – they're their own remarkable group found everywhere: in soil, water, air, and your gut. They include bacteria, fungi such as yeast and viruses. Most are harmless, and many are helpful, supporting digestion, immunity, mood and beyond.

## Microbiome

Your microbiome is the *entire ecosystem* – the microbes themselves, their genes, enzymes, and all the clever (and some not so great) chemicals they produce. We have many different ecosystems: gut microbiome, skin microbiome, lung microbiome, even vaginal (female) or testicular (male) microbiomes. Each one is its own unique mini-world, working hard to keep you in balance.

## Microbiota

This is the community of microbes – bacteria, fungi, viruses and more – that live on and inside your body. Your gut alone houses trillions, making it one of the densest microbial communities on Earth (more than soil, compost or the ocean!). Put simply, think of the microbiome as the *house*, and the microbiota are the people *living inside it*.

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## Mycobiome

The fungal side of your gut microbiota. Although fungi are fewer in number, they still play a role in gut balance. This includes yeasts like *Candida* and moulds that interact with bacteria, your immune system and diet.

## Neurotransmitters

Chemical messengers that carry signals between nerve cells, and between your gut and brain. Around 90% of serotonin and half of your body's dopamine are made in the gut, mostly by gut microbes and gut lining cells.

## Phytochemicals

Natural plant compounds, including polyphenols, that help plants defend themselves and help your microbes support you. They are well known for giving plants their colour, flavour and aroma, and many feed beneficial gut bacteria to produce anti-inflammatory chemicals.

## Polyphenols

A large family of phytochemicals including flavonoids (found in foods like berries, olive oil, tea and dark chocolate) that our gut microbes transform into powerful anti-inflammatory and antioxidant compounds.



## Postbiotics

Non-living microbes and the things they produced when they were alive. Early-stage research suggests that they may deliver health benefits, supporting gut barrier function and immune health. While it's an interesting area of emerging research, current evidence suggests probiotics and prebiotics remain the most practical, science-backed options.



## Prebiotics

Food for your beneficial microbes – typically certain fibres such as inulin and galactooligosaccharide (found in foods like onions, garlic, bananas, leeks, chicory and oats) that selectively feed your anti-inflammatory bacteria. The good news is that prebiotics naturally occur in many plant-based foods. So, if you're getting your Super Six most days, you're likely ticking this box without needing a supplement. The other benefit of this whole-food approach is that you'll be getting hundreds of other gut-loving plant chemicals, known as phytochemicals, that can't be manufactured (yet anyway!). Simply put, prebiotics are the fertiliser for your gut microbiome.

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## Probiotics

Live microbes (usually bacteria or yeast) that provide proven health benefits when taking the right type known as a *strain* (e.g. LGG bacteria), at the right *time* (e.g. when on antibiotics) and in the right way (e.g. 10 billion twice per day).



### DID YOU KNOW?

To qualify as a true probiotic according to the scientific definition, they must:

1. Be alive when consumed
2. Be present in large enough numbers
3. Have scientific evidence showing a health benefit

## Psychobiotics

These are specific probiotics and prebiotics that influence the gut–brain axis, the two-way communication between your gut and your brain. Promising research suggests certain groups of bacteria may help improve mood, reduce anxiety and support resilience to stress, although the exact strains and dose are yet to be confirmed, making it difficult to implement currently into real life. But it's an area to watch!

## Serotonin (5-HT)

Often called the “feel-good” chemical, serotonin regulates mood, sleep, and gut motility. The majority is produced in the gut, not the brain. Serotonin produced in the gut can't actually pass the blood–brain barrier, but is thought to impact the gut–brain communication indirectly. A balanced microbiome helps maintain healthy serotonin signalling.

## Short-Chain Fatty Acids (SCFAs)

These are the beneficial compounds your gut microbes produce when they ferment (or “eat”) fibre, mainly acetate, propionate and butyrate.

### DID YOU KNOW?

SCFA can help:

- Strengthen your gut lining
- Calm inflammation
- Support immunity
- Nourish brain health

Simply put, SCFAs are one of the key ways your gut microbes repay you for feeding them fibre.

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## Small Intestinal Bacterial Overgrowth (SIBO)

When bacteria that normally live in the large intestine move into the small intestine and overgrow, leading to bloating, gas, and discomfort. It can be triggered by antibiotics, surgery, or slowed gut motility. Usually diagnosed via breath testing.

## Strain

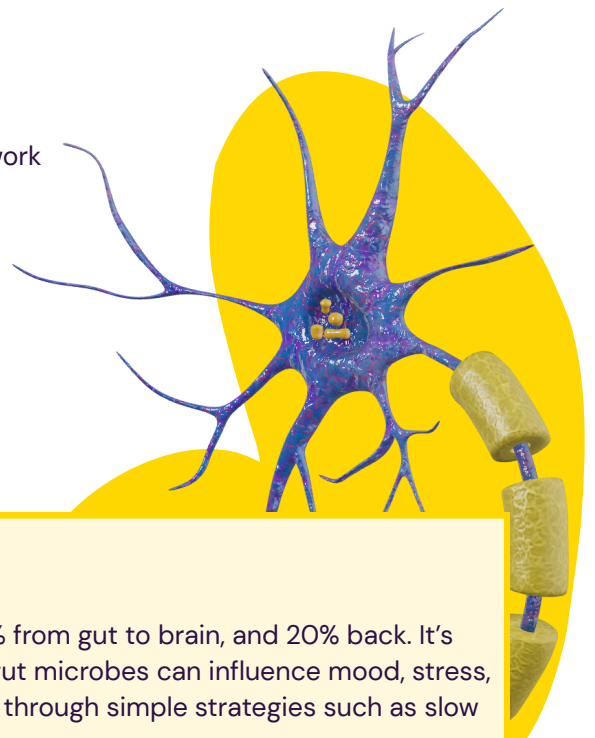
The specific “family member” within a species of bacteria. For example, *Lactobacillus rhamnosus* GG – here ‘GG’ is the strain. Different strains within the same species can have very different effects on the body, so when it comes to probiotics, strain matters most. Ultimately, different probiotic strains work for different things, so when considering a probiotic, think right *strain*, right *time*, right *way*.

## Synbiotics

A combination of prebiotics and probiotics = *synbiotics*. They work together synergistically. Research is still in its early stages, but future formulas may make targeted gut support even smarter.

## Vagus Nerve

The main communication highway between your gut and brain.



## DID YOU KNOW?

The vagus nerve carries signals in both directions – about 80% from gut to brain, and 20% back. It’s part of the enteric nervous system. Through the vagus nerve, gut microbes can influence mood, stress, digestion, and even inflammation. You can help keep it healthy through simple strategies such as slow breathing into your belly, humming and even singing.

## Virome

The viral part of your microbiota. While ‘virus’ often sounds scary, most of your virome is harmless, and some are actually helpful, keeping bacteria in check and helping maintain microbial balance.

