# Understanding gut-brain disorders

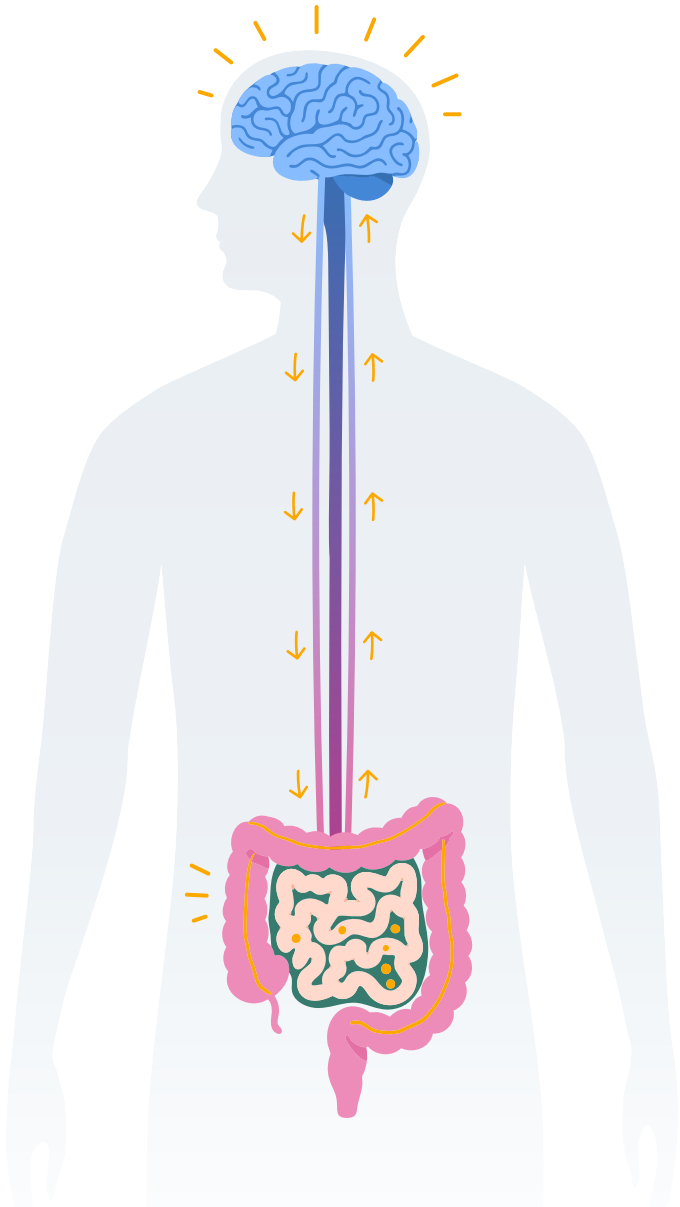
## Your symptoms are real – even when tests don't show damage or disease

Many people with ongoing gut symptoms are told their results are clear, which can feel confusing. In Disorders of Gut-Brain Interaction (DGBIs), clear results often help point to the right explanation.

It means the issue isn't structural damage – but changes in how the gut functions, senses signals, and communicates with the brain.

## How this system normally works

Your gut and your brain communicate constantly through the gut-brain axis. This system normally runs quietly in the background, regulating your digestion, sensation, and how your body responds to stress.

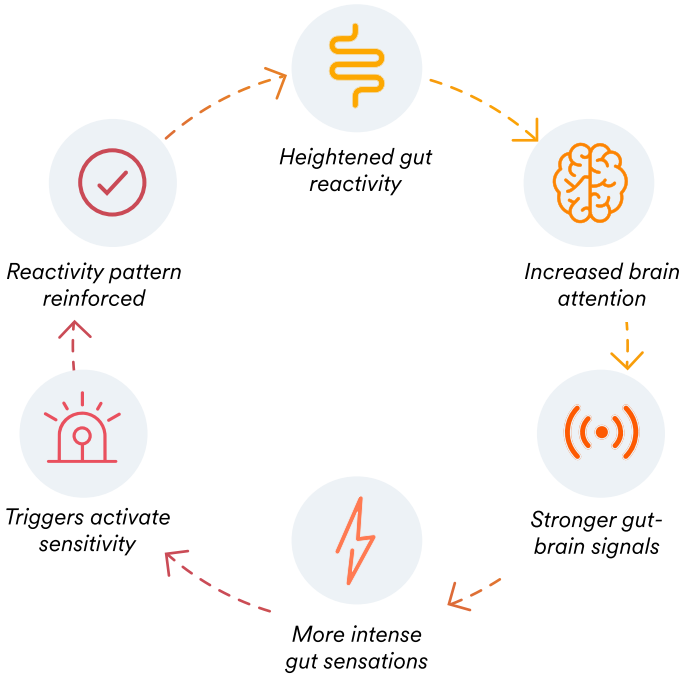


In gut-brain disorders, this system is still working – but it's become more reactive.

The nerves in and around the gut are more sensitive, so normal digestive signals are felt more strongly, even when nothing harmful is happening. This is known as visceral hypersensitivity.

The brain may pay more attention to these signals and send stronger signals back to the gut, further amplifying gut responses.

## How a reactive pattern develops




Over time, this pattern can lead to symptoms like pain, bloating, diarrhoea, or constipation. Food and stress may trigger symptoms – not because they are the root cause, but because the system is already on high alert.

Importantly, this system can be regulated. Your gut issues were never "all in your head."

Support may include a combination of approaches, such as gut-brain therapy, medication, and dietary strategies, depending on the individual.

*Learn more about gut-brain disorders:*

# Understanding gut-brain disorders: FAQs

**What is a gut-brain disorder?**

Gut-brain disorders are conditions defined not by structural damage to the gut, but by how the nervous system regulates and processes gut signals. They include conditions such as Irritable Bowel Syndrome (IBS), functional abdominal pain (FAP), functional nausea, and functional dyspepsia. Diagnosis is reached through clinical assessment and ruling out structural causes.

**Is this psychological? Is it "all in my head"?**

No. Your symptoms are real and physiological. Gut-brain conditions occur because the gut and nervous system are deeply connected. Addressing that connection helps regulate pain and motility.

**What is the gut-brain axis?**

The **gut-brain axis** is the two-way communication network between your central nervous system and the enteric nervous system embedded in your gut wall. It operates via nerves (especially the vagus nerve), hormones, and the gut microbiome.

**What are visceral hypersensitivity and hypervigilance?**

**Visceral hypersensitivity** is increased sensitivity of the gut's nerve endings, so that normal sensations (digestion, gas, distension) are experienced as painful. **Hypervigilance** is the brain's tendency to scan constantly for gut sensations, amplifying their perceived intensity. Together they create a self-sustaining feedback loop that can worsen symptoms over time.

**Is stress causing my condition?**

Stress is a significant contributor but rarely the sole cause. It directly alters gut motility, and sensitivity via the gut-brain axis. However, gut-brain disorders often begin after a physical trigger such as infection, food poisoning, or abdominal trauma, even in people with low stress levels.

**Why do I get symptoms even when I'm not stressed?**

Stress responses can occur below conscious awareness, influenced by sleep, hormones, immune activity, and the microbiome. Even if you feel calm, the gut-brain system may still be activated. Over time, gut sensitivity can persist, meaning symptoms don't always track with how stressed you feel.

**If certain foods trigger my symptoms, doesn't that mean I have a food intolerance?**

In gut-brain disorders, the nerves that carry signals from the gut can become more reactive. This means normal digestion — including fermentation of FODMAPs — can trigger stronger pain or bloating than expected. The issue isn't that the food is harmful, but how the gut is signaling.

**How are gut-brain disorders managed?**

Management focuses on supporting both the gut and the nervous system. It may include gut-brain therapies, dietary support, targeted medications, and lifestyle strategies, delivered in collaboration with your healthcare practitioner.

**Does gut-brain therapy only work for stress-related symptoms?**

No. Gut-brain therapies are designed to support the underlying gut-brain connection, not just reduce stress. Research suggests they may help regulate gut sensitivity and support symptom management across a range of triggers, including stress and food.

**Do I have to permanently change my diet?**

Approaches like the low-FODMAP diet are usually short-term tools to help identify triggers and calm symptoms — not lifelong restrictions. The goal is to settle and improve gut-brain signalling, then gradually reintroduce foods with the support of a practitioner.

*Content developed in alignment with current clinical guidelines and research on disorders of gut-brain interaction (DGBIs), including the Rome criteria and American College of Gastroenterology (ACG) guidance.*