



A guide for people  
with eating disorders

# ABOUT THIS GUIDE

We all understand that in our body **food travels** through the **gut** to provide us with **nutrients**. But the gut does so much more than just digesting food.

It may be surprising to discover that the gut can act as a **communication system** for the rest of the body, playing key roles in **mood** and **immunity**. There is growing research focusing on understanding the relationship between our **gut** and our **health** and we want to highlight findings which we think can be helpful for you.

This guide aims to share what **scientists** currently know about gut health and **eating disorders**, as well as to explain how taking care of your gut is a way of taking care of yourself. It was developed by a group of researchers, clinicians and people with lived experience of an eating disorder.

This **guide** will address some common questions, such as:

- What is the gut?
- How is the gut connected to the brain?
- What is the gut microbiome?
- What does a happy gut feel like?
- What does an unhappy/grumpy gut feel like?
- How can I take care of my gut?



# THE GUT IS CONNECTED TO THE BRAIN

The **gut** is an important part of our digestive system which goes from our mouth to our bottom, involved in food intake, digestion, and waste removal (poo).

It's one of the gut's **functions** to produce hormones that signal **hunger and satiety** in the brain, helping to regulate when and how much you need to eat.

Research has shown that these hormones might be **changed** in people with **eating disorders**, specifically in people with anorexia nervosa, which may help explain why it is **difficult** to recognise these signals.

The **vagus nerve** is another important link that carries information between the internal organs and the **brain**. It helps regulate essential functions in the body, including heart rate, digestion, breathing, and speech.

The link is the reason we feel butterflies in our stomachs when we feel nervous or when we like someone new.

Scientists have found that the **vagus nerve** may not perform at its best with too much **stress**, and in people with some **gut conditions** such as irritable bowel syndrome (IBS) and Crohn's disease.





## THERE IS A WHOLE UNIVERSE ALIVE IN THE GUT

The lining of the gut is **home to trillions of tiny organisms called microbes**. Together, these microbes, which include bacteria, viruses, fungi and others, along with the substances they produce and the environment they live in, are known as the gut microbiome.

The **microbes help** digest, absorb and synthesise nutrients that our body would not be able to process on its own. They can also produce chemical messengers called **neurotransmitters**, which carry messages to the brain that may **affect our mood, food choices, and appetite**.

There are many **different types of microbes** in our gut, all with different potential messages to convey. While there is a lot of interest in this area, scientific understanding has only begun to uncover the tip of the iceberg.

What we know is that different types of microbes need different types of food, and the **gut is at its best** when it hosts a wide **variety** of microbes.

Eating **only a few kinds of food** may **reduce** the variety of microbes in the gut. Just like weeds spreading in a garden, some microbes can take over the gut, crowding out others when we do not eat a varied and regular diet. This **imbalance** can contribute to **discomfort** in our gut, like **bloating and constipation**.

# A GUT THAT FLOWS

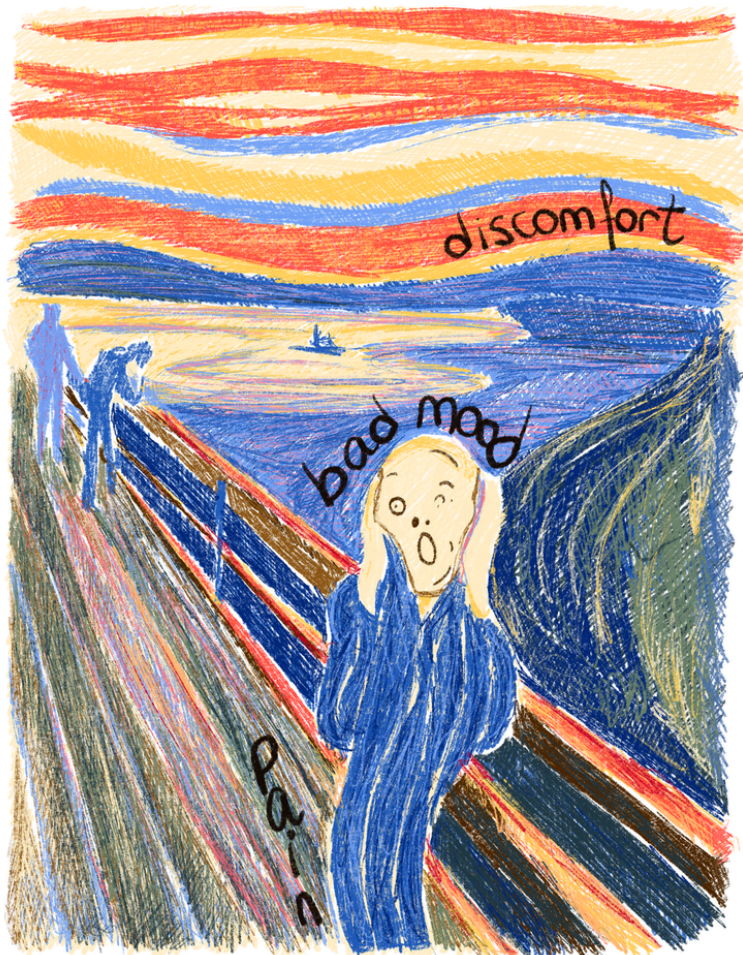
When our gut is **healthy**, we **hardly notice** its functioning. It gets on with its day-to-day jobs in the background, including:

- Effective **digestion** of food and **absorption of nutrients, water and medicines**
- **Regulation** of bowel **movements**
- **Defence** from any harmful microbes or toxins we may take in when we eat and drink
- Production of many of the **hormones** that signal when we are **hungry or full**, as well as the hormones that regulate digestion, and the ones that affect our **mood**

**Remember: it's part of a normal, healthy gut function to feel hunger** when the body expects or needs nutrients (i.e., food), and **to feel full** after a regular-sized meal.

It is also normal to open our bowels **regularly** and to produce **formed, easy** to pass, poo.





## THE GUT FEELINGS

There are several ways the **gut can communicate that it is not working properly**, and its signals can include: **heart burn, regurgitation, tummy pain, bloating, flatulence** (farting), **constipation, diarrhoea**, and even **bad mood**.

In people with **eating disorders**, those symptoms may signal an **undernourished and weak gut**. For example, if there is **not enough food** coming into the gut, it will be more **difficult to pass** it along and **to form** normal poo.

Eating disorder symptoms such as **vomiting or using laxatives** can **upset the balance of microbes in the gut**. Research shows that **gut microbes are often altered in people with eating disorders**, and these changes may play a role in the gut problems they experience.

Eating disorders can also result in people interpreting signs of normal gut functioning as abnormal. For example, after eating, the normal feeling of being full might be difficult to manage. **It can also be hard to trust** feelings of **hunger** as an indication that food is needed.

As the gut has so many **essential functions** in our **physical and mental health**, we hope that you found this guide useful for understanding the importance of **taking care of it**.

There is a lot of conflicting **advice** out there on what we can do to keep our gut happy. We have listed **three things** below we know for sure:



**HAPPY  
GUT,  
HAPPY  
YOU**

**1**

**Firstly**, the gut likes **routine and structure**. It likes to know **when** food is coming and **how much** food to expect.

For example, **eating** meals and snacks at **regular times** of day is a great start. Nourishing yourself adequately means that you are providing the gut with the nutrition it needs to function well, meaning **fewer gut symptoms**.

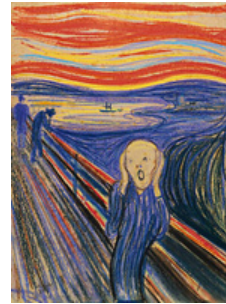
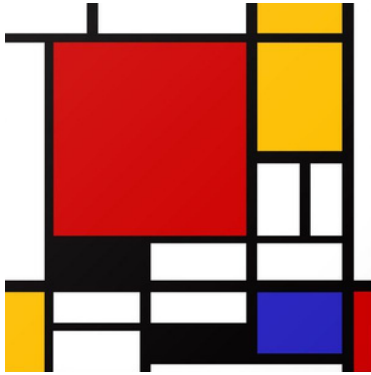
**2**

**Secondly**, **eating** a wide **variety of food** supports our gut health. Big changes to our diet, such as cutting out lots of food or eating only a **few types of food** can **disrupt our gut microbes**. We can **support** our gut microbes by regularly eating food from **all the main food groups**, including **wholegrain starchy foods, fruit, and vegetables**.

**3**

**Thirdly**, in people with **eating disorders** who **make themselves sick or use laxatives**, reducing these practices and working towards ultimately stopping them will **improve gut health**.

In summary, a **well-nourished and cared-for gut** fuels the journey to a **happier self**.



**Original paintings from left to right, top to bottom:**

"Composition with Large Red Plane, Yellow, Black and Blue" by Piet Mondrian;  
"Sunflowers" by Vincent van Gogh; "Starry Night" by Vincent van Gogh; "Three Sphinxes Of Bikini" by Salvador Dalí; "Landscape with Butterflies" by Claude Monet; "The Scream" by Edvard Munch and "Still Life" by Pablo Picasso.

This booklet was developed in collaboration with young people and staff from FREED – First Episode Rapid Early Intervention for Eating Disorders.

FREED services are based in NHS Trusts across the UK and aim to provide quick and effective early intervention for eating disorders.

For more information see:

[www.freedfromed.co.uk](http://www.freedfromed.co.uk)

[www.edifyresearch.co.uk](http://www.edifyresearch.co.uk)

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