THE GUT HEALTH SERIES

HEARTBURN AND REFLUX

What reflux is, which warning signs need a doctor, and a 14-day plan



DR MICHAEL KLEIN

Before You Begin

Gut problems can affect what you eat, how you feel and how you live. This book brings together scientific evidence and practical guidance on one of them: heartburn and reflux.

It is one of the problem chapters of *The Gut Health Manual*, published on its own. Chapter 2 is that chapter, word for word. Chapter 1 adds the short background it relies on, and Where to Go Next shows what the full manual adds for a reader with this problem. Where the text says "the constipation chapter" or similar, it means a chapter of the full manual.

IMPORTANT NOTICE

This book is for general information. It is not a diagnosis, and it does not replace advice from your own doctor, pharmacist or dietitian.

Read the **red flags** in Chapter 2 first. If any apply to you, see a doctor before trying the plan.

Never stop or change a prescribed medicine without speaking to the person who prescribed it.

Check with a pharmacist before taking herbal products if you are pregnant, breastfeeding, take regular medicines, or have a long-term condition.

How to Use This Book

Start with Chapter 2. You do not need to read Chapter 1 first, but it is short and explains the labels used throughout.

The evidence labels

Label	What it means
Strong	Several good randomised controlled trials, confirmed in meta-analyses.
Moderate	At least one good randomised trial, or several smaller trials pointing the same way.
Early	Small or laboratory studies, or traditional use with a plausible mechanism.
Expert advice	Recommended by specialist guidelines on the basis of experience rather than trials.
Not supported	Tested and found not to help, or advised against by specialists.

What the boxes mean

★ **KEY IDEA**

The single most important point of a section.

i **PRACTICAL TIP**

Advice that makes a step easier or more effective.

! **CAUTION**

Safety guidance, or a common mistake to avoid.

The workbook pages

Chapter 2 ends with **Key takeaways**, a **checklist**, a **14-day plan** and a **tracker** page. Patterns in your own diary are often more useful than any general advice. Each tracker is also in the free GutClarity™ app (see Free Downloads and the Companion Kit).

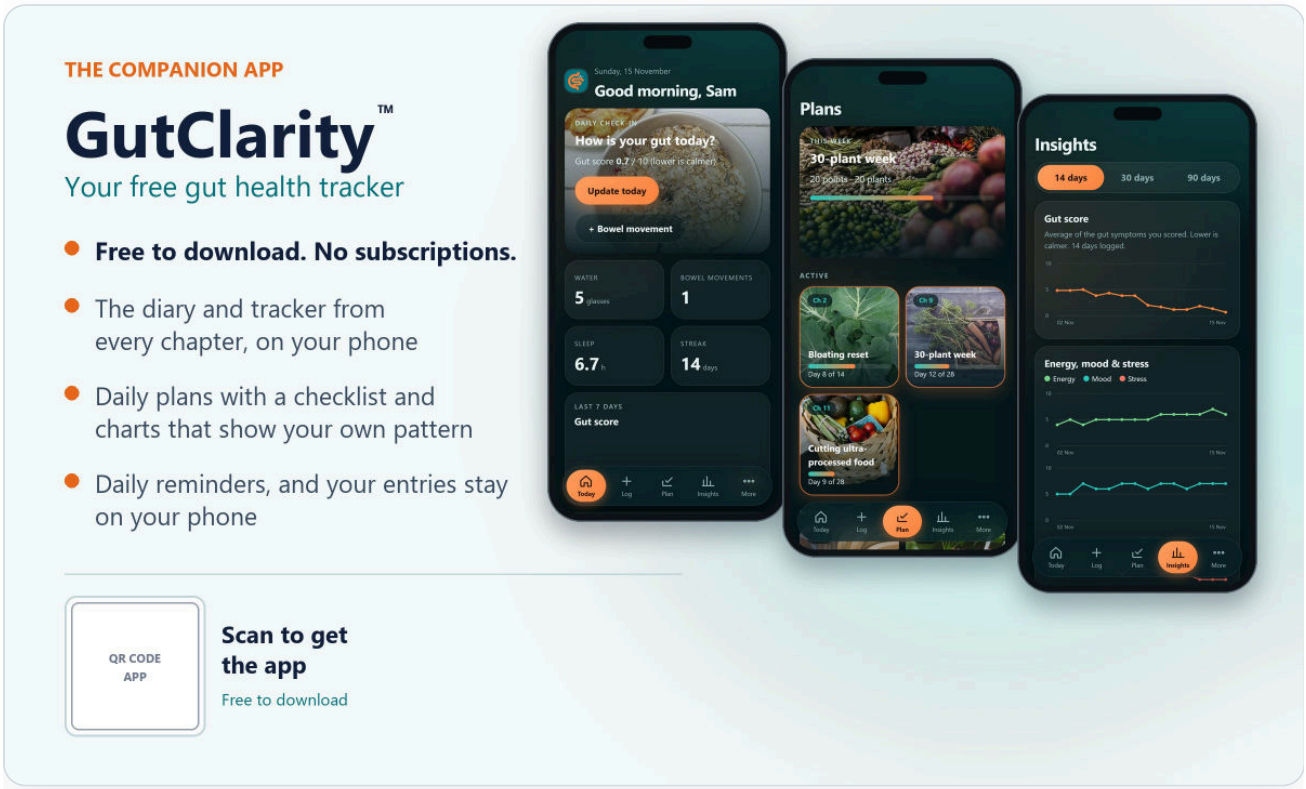
Free Downloads and the Companion Kit

To help you put the guidance into practice, a selection of free downloadable resources is available online, including printable checklists, symptom diaries and progress trackers. The complete Gut Health Companion Kit is free to download too, bringing together the chapter worksheets, practical plans, food-planning tools and reusable journal pages, alongside guided audio for breathing and gut-calming relaxation. These resources accompany the Natural Health Series and give you space to record your experiences, recognise patterns and prepare useful questions for your healthcare professional. You can print fresh copies whenever you need them and use the tools that suit you best.



Your free companion app

Every diary and tracker in this book is also available in **GutClarity™**, a companion app for your phone. It is free to download, and there are no subscriptions. You score your symptoms, log meals and bowel movements, tick off the steps of each 14-day plan, and see charts of your own pattern, with an optional reminder each day. Your entries stay on your phone. At the end of Chapter 2, a short panel shows the matching screens, for anyone who would rather not print and fill in the forms by hand.



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CHAPTER 1

01

This short chapter gives the background that Chapter 2 relies on: two ideas about how the gut works, and how to read the evidence labels. It is adapted from the opening chapter of The Gut Health Manual.

IN THIS CHAPTER

01 The gut-brain axis

02 The microbiome

03 How the evidence labels work

04 Where to begin

1.1 Two things worth knowing

The full manual explains four systems that sit under almost every gut problem: the microbiome, the gut barrier, short-chain fatty acids and the gut-brain axis. Two of them are summarised here because they come up in this book: the gut-brain link behind stress and breathing, and the microbiome, which acid-lowering medicines can affect.

The gut-brain axis

Your gut and your brain are in constant two-way communication through a network called the gut-brain axis. The gut contains its own network of nerve cells, the enteric nervous system. The vagus nerve carries signals between the gut and the brainstem in both directions. Most of the body's serotonin is made in the gut, mainly by the gut's own cells, not by bacteria. Gut serotonin does not cross the blood-brain barrier; the brain makes its own. Bacteria can influence signalling, but that is not the same as sending serotonin to the brain. **Evidence level: Strong (basic neuroscience and anatomy); Early (microbial mechanisms as an explanation for changes in human mood).**

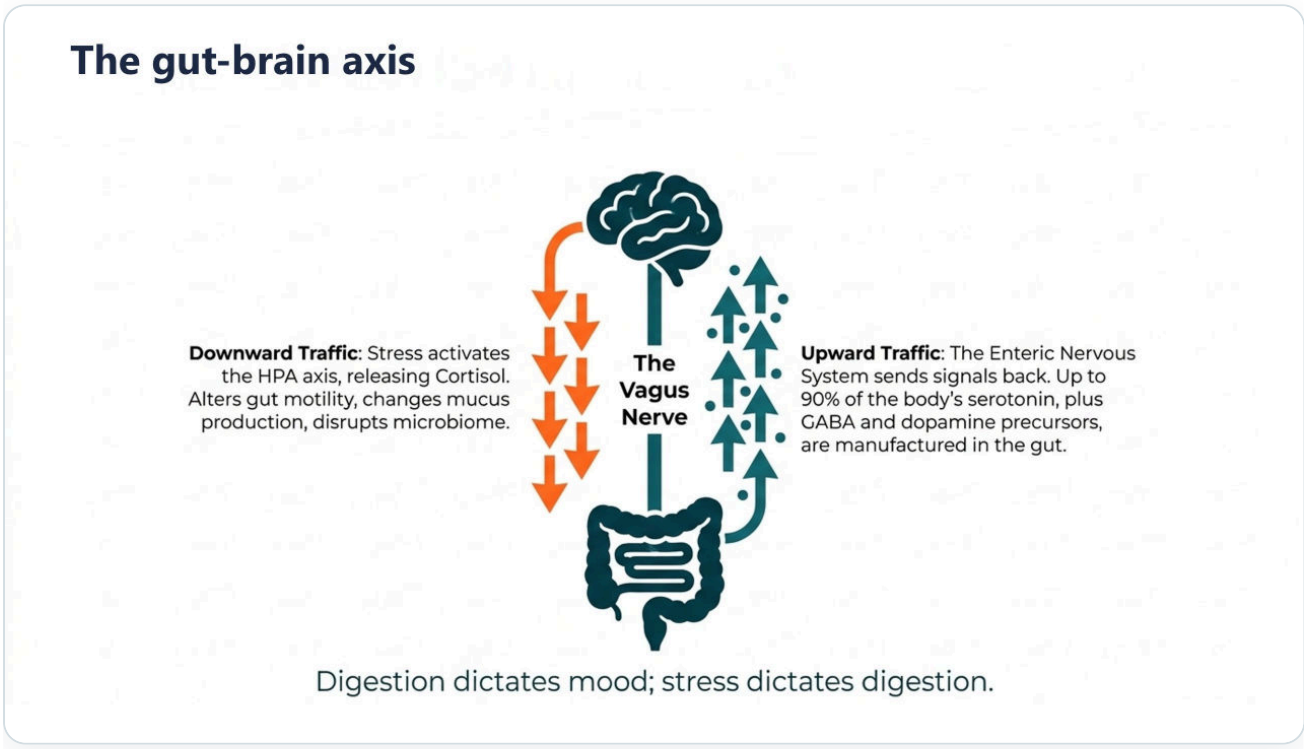


FIGURE 1.1 **The gut-brain axis** Signals travel both ways through nerves and other routes. Serotonin made in the gut is mainly produced by the gut's own cells and does not enter the brain. The arrows show possible routes, not that digestion dictates mood or stress dictates digestion.

The microbiome

Your large intestine is home to trillions of micro-organisms, mostly bacteria, and also viruses, fungi and other microbes. This community is called the gut microbiome. Its members help break down food that your own enzymes cannot digest. **Evidence level: Strong for these established biological functions.**

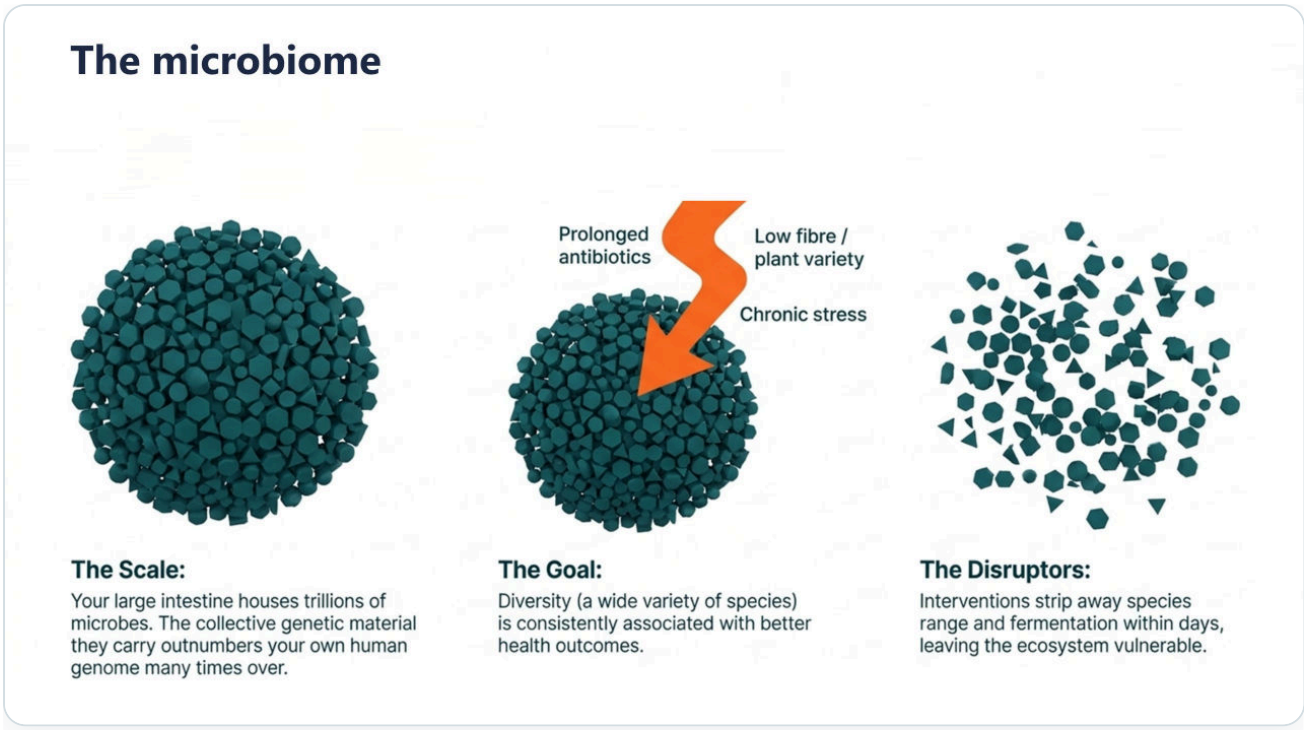


FIGURE 1.2 **The microbiome** A diverse community lives in the large intestine. Antibiotics can change it within days; diet and stress may also affect it. A link with health is not proof that raising diversity will relieve a particular symptom.

1.2 How the evidence labels work

The labels in the table in How to Use This Book (Strong, Moderate, Early, Expert advice and Not supported) sit beside the key claims in Chapter 2. Read the words beside a label. Where the evidence concerns an observational link or basic physiology rather than a treatment trial, the text says so. Strong evidence that a biological process exists is not strong evidence that changing it will improve your symptoms.

1.3 Where to begin

Chapter 2 is the main part of this book. Read its **Rule out first** section before anything else: if any of the warning signs apply to you, see a doctor before trying the plan. Then work through the steps in order, and use the 14-day plan and the diary at the end of the chapter to see what helps you.

This book is not a substitute for medical advice. If you have symptoms that are new, rapidly changing, or accompanied by blood, unexplained weight loss or pain that wakes you at night, see your doctor first.



CHAPTER TWO

Heartburn *and* Reflux

Why reflux happens, the warning signs, and the steps that ease it.

1 in 8

adults have heartburn or regurgitation weekly.

GLOBAL REVIEW, 2018

It starts as a warm, burning feeling behind the breastbone after a big dinner. Some nights a sour taste rises into your mouth, or you wake with acid in your throat and a cough. You keep antacids in every coat pocket, and you wonder whether the tablets your doctor prescribed are safe to take for years. This chapter explains what reflux is and why it happens, which warning signs need a doctor, what the evidence says about everyday changes, medicines and remedies, and a 14-day plan that starts with free steps at bedtime.

IN THIS CHAPTER

01 How common reflux is, and what heartburn, GERD and "silent reflux" mean

02 How the valve at the top of the stomach works, and the main drivers of reflux

03 Red flags, Barrett's oesophagus and other causes to rule out

04 The seven-step reflux plan, with evidence labels

05 Pharmacy medicines and PPIs: how to take them, stop them, and how safe they are

06 Herbs, supplements and internet myths

07 Your 14-day reflux reset and diary

2.1 How common is reflux?

Reflux is one of the most common gut complaints in the world. A 2018 review pooled 102 population studies with 460,984 adults. When reflux was defined as heartburn or regurgitation at least once a week, about **1 in 8 adults** (13.3%) had it. Single studies using different questionnaires ranged far more widely, from 2.5% in one Chinese study to over 50% in a Greek study of throat symptoms, and reflux was more common in people aged 50 or over, smokers, people taking anti-inflammatory painkillers or aspirin, and people with obesity.

Surveys that count any symptoms in the past week find more. In a United States online survey of 71,812 adults in 2015, 30.9% had heartburn or regurgitation in the past week, and 44.1% had had reflux symptoms at some time. Of the 3,229 people taking a proton pump inhibitor every day, 54.1% still had symptoms on two or more days a week. That last number matters: it is one reason this chapter puts the free steps first, and asks whether every symptom is reflux at all.

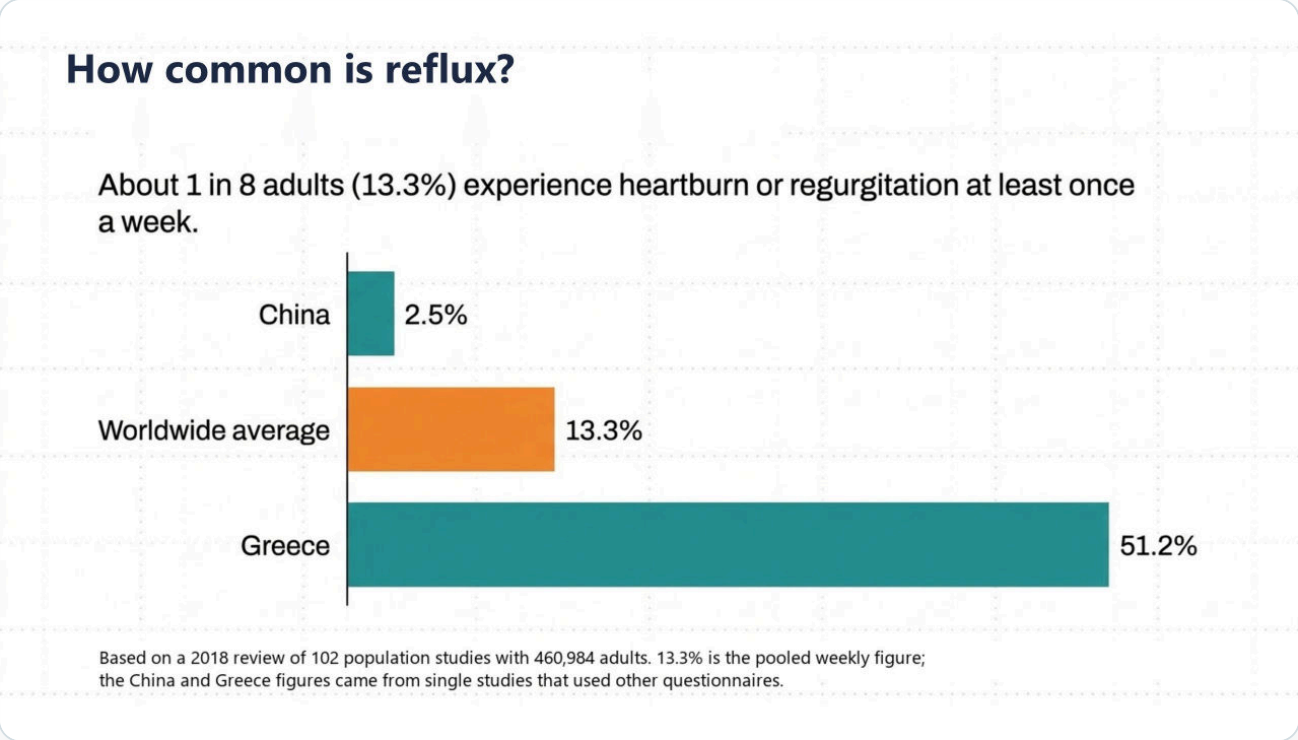


FIGURE 2.1 **How common is reflux?** About 1 adult in 8 worldwide has heartburn or regurgitation every week; single studies using other definitions ranged from 2.5% to over 50%.

2.2 What the words mean

- **Heartburn** is a burning feeling in the middle of the chest, rising from the stomach towards the throat. It has nothing to do with the heart, although heart pain can feel similar (see the red flags below).
- **Regurgitation** is stomach contents coming back up into the throat or mouth, often with a sour or bitter taste.
- **Gastro-oesophageal reflux disease** (GERD in American English, GORD in British English) is reflux that causes troublesome symptoms or damage. This is the 2006 Montreal definition, agreed by 44 experts from 18 countries. Occasional heartburn after a large meal is common and is not a disease.
- **"Silent reflux"** is a popular name for throat symptoms blamed on reflux: hoarseness, throat clearing, a lump in the throat, excess phlegm or a lasting cough, often without heartburn. Doctors call it laryngopharyngeal reflux. A 2026 consensus of throat and gut specialists (the San Diego consensus) says these symptoms alone do not prove reflux: they have many other causes, and the throat itself can become oversensitive.

The difference matters for treatment. With heartburn or regurgitation, a trial of lifestyle changes and acid-reducing medicine is reasonable. With throat symptoms alone, the San Diego consensus and the American College of Gastroenterology (2022) both advise tests for reflux before treatment with acid-reducing medicine.

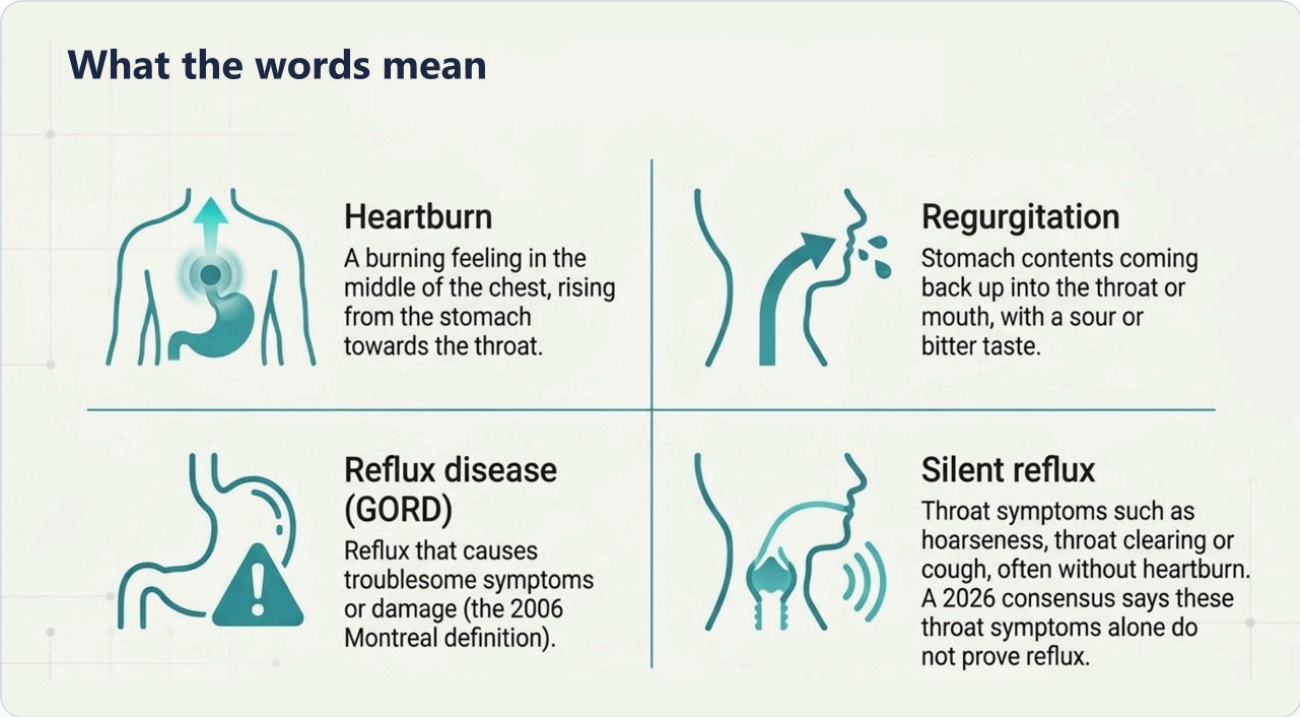


FIGURE 2.2 **What the words mean** Heartburn, regurgitation, reflux disease and "silent reflux": throat symptoms alone do not prove reflux.

2.3 How reflux happens

At the bottom of the gullet (the **oesophagus**) a ring of muscle, the **lower oesophageal sphincter**, works together with the diaphragm as a one-way valve. It opens to let food into the stomach and then closes. Some reflux is normal: the valve relaxes briefly from time to time, and a little stomach content can slip up. Reflux becomes a problem when this happens often, when the gullet clears it slowly, or when the gullet is unusually sensitive to it.

- **After a meal**, a pool of acid sits on top of the stomach contents, just below the valve. This is why reflux is worse after eating, and why alginate medicines, which float on top, can help.
- **Pressure from the belly** pushes stomach contents upwards: extra weight around the middle, a large meal, tight clothing or pregnancy.
- **A hiatus hernia**, where part of the stomach moves up through the diaphragm into the chest, weakens the valve.
- **Lying down** lets acid flow up more easily, and acid takes longer to clear. In 57 people monitored overnight, acid cleared in a median of 35 seconds when lying on the left side, compared with 76 seconds on the back and 90 seconds on the right side.

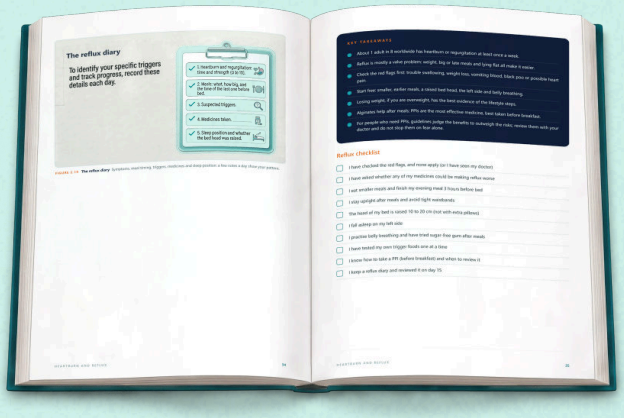
Burning after dinner, antacids in every pocket?

See why reflux happens, which warning signs need a doctor, and which everyday changes, medicines and remedies are worth trying, starting with free steps at bedtime.

A step-by-step 14-day plan, with every step graded by the strength of its evidence. Printable checklists, symptom diaries and progress trackers are free to download, and the GutClarity app is free too, with no subscription.

Check the warning signs first, then follow the 14-day plan.



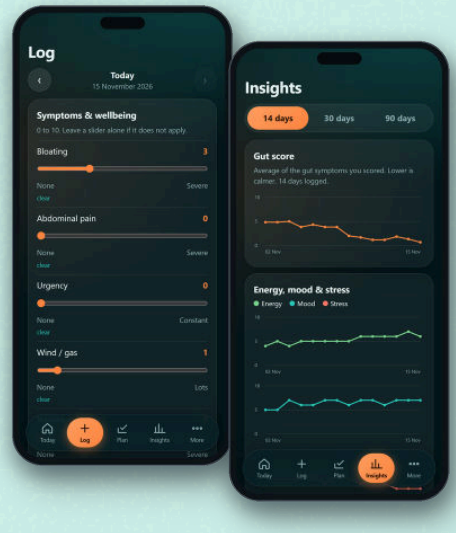


Clear explanations. Practical steps.

Checklists, diaries and trackers.

Explore The Gut Health Series





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