

GUT HEALTHY, MIND HAPPY

*A 6-Week Program to Heal Your Gut
Using Nutrition and Mindfulness*

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This book is purely intended to provide information hence should not under any circumstance substitute medical advice from a qualified physician. The book should not be used to diagnose or treat any medical condition. This book is not designed as a treatment manual for people with diagnosable gut diseases like IBD, Crohn's disease, ulcerative colitis, celiac disease, or gastrointestinal reflux disease (GERD). For diagnosis and treatment of any medical condition, please consult your physician.

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This book is not designed to diagnose or treat medical conditions. It has been created by a nutritionist to provide advice to enhance gut health in an otherwise healthy population.

Before starting any diet, consult with your doctor about it to ensure it is suitable for you.

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Introduction

Happy gut, happy mind.

While this is an oversimplification, research has indicated an important link between mental health and gut health.

A healthy gut means that the various jobs of the gut - nutrient absorption, waste removal, and hormone production, are functioning smoothly, and you feel your best. When your gut is struggling, you're going to experience unpleasant gastrointestinal symptoms like severe bloating, stomach pain, constipation, and diarrhea. But what you may not be aware of is that these symptoms are just the tip of a very big iceberg.

Your gut and brain are closely connected. In fact, people refer to the gut as the "second brain." There is bidirectional communication between the gut and the brain via the vagus nerve. What is happening in your gut can affect how you think and feel - and how you think and feel, can affect your gut.

Studies have shown that stress affects digestive functionⁱ, and poor gut health increases the risk of mental health disorders like anxiety and depressionⁱⁱ, dysregulated moodⁱⁱⁱ, brain fog, stress, and fatigue^{iv}. So what came first, poor gut health or poor mental health? Did one cause the other? Or do they occur simultaneously?

In western medicine, the mind and the body are viewed as two separate entities. But in holistic medicine, the mind and body are connected. In Traditional Chinese Medicine, it's believed that emotions are linked to certain organs, and extreme or imbalanced emotions have the potential to become pathogenic. The gut-brain connection is proof of the interconnectedness between body and mind.

To heal your gut, you've got to address your mind. Particularly your thoughts and feelings about food. Your gut is part of the digestive system, whose role is to process the food you eat. But how you *feel* about the food you eat can alter how it is processed. It's why disordered eating habits (avoidant food intake, restrictive diet, anorexia, or bulimia) are correlated with gut issues, specifically the most common gut condition - irritable bowel syndrome (IBS).

We're going to cover all of this and more in this book.

Now you may be wondering who I am. I struggled with digestive problems from the age of around 13 to 24, which got progressively worse with age. Until at the age of 24, I did a master's degree in nutrition. I came to realize that my digestive issues began occurring at the same time I experienced disordered eating. I went on my first diet at 13, and for the next 11 years that followed, my issues with food got worse.

Like many 13-year-old girls in 2007, I wanted to be as skinny as possible. I followed all the diet fads - low fat, low carb, the Special K diet, veganism, fruitarian - you name it, I tried it. Even when I thought I was being as healthy as possible, following a strict whole-food vegan diet, I experienced severe bloating and stomach pain. At the same time, my mental health declined. I was anemic and experienced extreme fatigue, brain fog, depression, and anxiety. I could barely make it through the day without needing to nap, crash, or cry.

During my master's degree, I learned about the gut. I led my own research project into the role of gut health and why it correlates with disordered eating. This research, selfishly, was an attempt to understand my own experience. Luckily for me, it helped. I learned about the mind-body connection, how my thoughts and feelings affected my digestion, and how I could escape the viscous cycle simply by reconnecting with my body and improving my diet. I learned how to nourish my gut with food and adjust my lifestyle to combat stress, to feel safer and more regulated in my body.

When I began healing my gut and stopped experiencing such severe symptoms, I felt like I regained control and confidence over my body. My daily life used to be impacted by my gut. Whether it was stomach pain that had me curled over in bed, feeling self-conscious due to bloating or brain fog that affected my work performance - I know what it's like to experience poor gut health. Now, I know what it's like to have a digestive system that works optimally.

Nowadays I don't experience bloating (beyond the normal expansion of your stomach after food!), I'm mentally sharp, energized, and emotionally balanced. My relationship with food is healthy; I no longer restrict myself or avoid food groups. In fact, I eat a more varied diet than ever, and I look, feel, and perform better than ever, too.

Healing my gut changed my entire life. But it wasn't a case of "take this pill"; it involved healing my relationship with food, my perceptions about what I consider healthy, and patience. Healing your gut isn't an overnight thing. By implementing what you learn in this book, you'll enjoy some immediate benefits like clear-mindedness, a reduction in bloating, and more energy. But the maximum benefits will come in time.

So how will this book help you? I'll teach you about the gut. We'll cover some of the basics of biology - how your digestion works, the main functions of the gut, and all about your gut microbiome. We'll take a deep dive into the amazing bacterial ecosystem of the gut and what nutritional and lifestyle factors impact gut health. Finally, we'll get to healing your gut. This will be a three-step process:

1. Feeling
2. Healing
3. Fueling

Unlike other guides on gut health, a critical step in your healing journey will be “feeling.” This refers to feeling connected to your body so that you can set a healthy foundation for what’s to come. While researching this book, I noticed that other articles, books, and guides approached gut health one-dimensionally: an “eat this not that” approach. This over-simplification of the gut is what prevents people from really healing. You have to consider the role of your mind when attempting to treat the conditions of the body.

During the “feeling” phase, you’ll learn about the gut-brain axis, how stress affects digestion, how to better connect with your body, and how to improve your relationship with food. This phase is the foundation for all the healing to come.

Next is the “healing” phase. You’ll follow a controlled low-FODMAP diet and reintroduction period. This phase will restore balance in your gut microbiome to treat dysbiosis and inflammation, which may be at the root of your gut symptoms.

Finally, you’ll enter the “fueling” phase. This will teach you all about the best foods to eat for a thriving gut microbiome and healthy digestion. These foods will be included as ingredients in the recipes provided so that you can integrate them seamlessly into your diet.

After you’ve moved through these three stages, you’ll experience

- A reduction or total alleviation in bloating
- More energy
- No more brain fog
- Regular bowel movements
- Better sleep

- Clear skin
- More regulated emotions and mood
- A reduction in physical and emotional stress

Bloating, brain fog, and stomach pain will be gone. You'll feel lighter and more energized, you may experience a reduction in anxiety, and you'll sleep better. You'll feel happier and healthier than before.

It all starts with connecting mind and body. Everything that happens in the body begins in the gut.

Without further ado, let's get started.

Gut Education

It's Time to Focus on Gut Health

If you're reading this book, there's a good chance you're experiencing some symptoms that you believe are connected to your gut. Symptoms are your body's way of signaling to you that it needs some help. The most common symptoms of poor gut health include

- Bloating
- Constipation
- Diarrhea
- Gas
- Cramping
- Stomach pain
- Heartburn
- Acid reflux
- Discomfort during/immediately after eating

But the gut is a complex system. It's referred to as the "second brain" for a reason! When your gut is struggling, it will affect all systems in your mind and body, causing hormone imbalances and nutrient deficiencies. Some lesser-known symptoms that can be attributable to poor gut health include

- Brain fog
- Skin issues like acne, rashes, or sensitivity

- Food allergies and intolerances to foods that you used to tolerate
- Vitamin deficiencies
- Hormone imbalances (which can lead to irregular periods, tachycardia, weight gain, and other side effects)
- Anxiety or depression
- Weight gain or appetite changes
- Poor dental health: white-coated tongue, bad breath, receding gums, cavities
- Fatigue
- Thrush or yeast infections
- Gallstones

If you have been experiencing one or more of these symptoms, especially if your symptoms have “teamed up” e.g., bloating and brain fog, or constipation and weight changes - focusing on your gut health will help. But what does “gut health” even mean? This term has become somewhat of a buzzword in the health and wellness industry, often being used in a vague way. So to note, “gut health” largely refers to the health and well-being of these two major things:

1. The structure of the gut
2. The function of bacteria

Poor gut health can be caused by inflammation, which impacts the structure of the gut. It creates small holes in the gut wall that allow particles to escape into the bloodstream. It can also be caused by an imbalance of bacteria - more harmful bacteria than helpful bacteria.

The goal of the microbiome is to have an abundance and diverse variety of bacteria. This is when the gut can function the best. Don't worry if this sounds complicated right now, we're going to dissect each of these components in detail throughout the book so that you can understand what might be happening inside your gut and how you can heal it.

The Digestive System

You can think of the human body as a complex machine that needs fuel to run. The food we eat is like the fuel we put into the machine. However, just like a machine, our bodies must process the fuel before it can be used effectively. This is where the digestive system comes in - it's like the engine that transforms food into *usable* energy.

The digestive system is a complex group of organs and structures that work together to break down food into its component parts, like carbohydrates, proteins, and fats, and then deliver them to the body's cells, where they can be used as fuel. Without a properly functioning digestive system, the body would be like a machine that's not getting the right type or amount of fuel - it wouldn't run efficiently and might even break down altogether.

The digestive system includes the gut (esophagus, stomach, small intestine, large intestine, rectum, and anus), also other organs such as the salivary glands, liver, pancreas, and gallbladder, which produce digestive juices and enzymes that help with digestion.

The gut is a general term that refers to the entire digestive tract, specifically referring to the part of the digestive system that includes the small intestine and the large intestine (colon), which are responsible for absorbing nutrients from food and eliminating waste products. The gut also contains a complex ecosystem of microbes that play important roles in digestion and overall health.

So while the digestive system includes the gut, it also includes other organs and structures involved in the digestion, absorption, and elimination of food and waste.

The Process of Digestion

When food enters your mouth, digestion begins. Here's the process.

Mouth: Mechanical digestion begins in the mouth as the teeth grind and break down food into smaller pieces. Saliva, which contains the enzyme amylase, also begins the chemical digestion of carbohydrates by breaking them into simpler sugars.

Esophagus: Food is moved down the esophagus by muscle contractions, or peristalsis, which involves mechanical digestion.

Stomach: In the stomach, strong muscle contractions mix food with gastric juice, which contains hydrochloric acid and the enzyme pepsin. The acid helps to break down food and kill bacteria, while pepsin breaks down proteins into smaller peptides.

Once the nutrients are broken down into smaller molecules, they are absorbed across the lining of the small intestine and into the bloodstream.

Small intestine: Most of the chemical digestion and nutrient absorption occurs in the small intestine. Here, pancreatic enzymes such as amylase, lipase, and proteases help to break down carbohydrates, fats, and proteins, respectively.

The small intestine also produces its own enzymes, including lactase, which breaks down lactose (a sugar found in dairy products), and sucrase, which breaks down sucrose (a common table sugar).

Nutrient absorption occurs through several different mechanisms:

- **Passive diffusion:** Some nutrients, such as water and small lipids, can diffuse across the cell membranes of the intestinal lining without the need for a transport protein.
- **Facilitated diffusion:** Other nutrients, such as glucose and amino acids, require a transport protein to help them move across the cell membrane.

- Active transport: Certain nutrients, such as sodium, potassium, and calcium, are absorbed through active transport, which requires energy in the form of ATP.

In the upper portion of the small intestine, sugars are quickly absorbed, whereas more complex carbohydrates like starches and fibers take longer to digest and may move lower into the large intestine. There, bacteria and digestive enzymes in the gut aid in the breakdown of these substances. These non-digestive carbohydrates are fermented into short-chain fatty acids (SCFAs), represented by resistant starch and inulin. Your gut bacteria feast on these carbohydrates, which helps the healthy bacteria in your gut to proliferate. We'll come onto this in a minute.

Large intestine: The large intestine absorbs water and electrolytes from the remaining food material, forming feces - and out it goes!

What digestion looks like when you eat an apple

Mouth: When you bite an apple, your teeth begin to break it down into smaller pieces through mechanical digestion. The process of salivation is triggered, and the saliva in your mouth contains an enzyme called amylase, which starts the chemical digestion of carbohydrates by breaking down starches into smaller sugars.

Stomach: The pieces of apple then move into the stomach, where they are mixed with stomach acid and digestive enzymes, including pepsin. Pepsin helps to break down any proteins present in the saliva or the apple itself.

Small Intestine: The broken-down pieces of apple then move into the small intestine, where pancreatic enzymes are released to further break down the carbohydrates. Specifically, the enzyme amylase from the pancreas continues to break down carbohydrates into simpler sugars, such as fructose and glucose.

Absorption: The nutrients that are broken down from the apple are then absorbed through the small intestine lining into the bloodstream, where they are transported to various tissues and organs throughout the body.

Once the nutrients have been absorbed from the food, the rest is expelled from the body as waste. But how can your body tell the difference between nutrients and waste? That's the gut's job!