

# YOU'RE ON FIRE

HEAL IBS, SIBO, MICROBIOME DYSBIOSIS &  
LEAKY GUT TO DISCOVER WHOLE HEALTH

WILLIAM B. SALT II, MD

EDITED BY  
BARB WEBER



## PRAISE FOR YOU'RE ON FIRE

***I just have to say 'wow.' This book is so comprehensive. It is literally the one stop for SIBO/IBS information. Well sourced. But what I really like is the style you used for it. It is so readable. You have a talent for conveying medical information that is unique and I think people will love it ... I am so impressed also that you are literally right up to date with everything. Thanks for this great piece of work.***

— MARK PIMENTEL, MD, RENOWNED  
GASTROENTEROLOGIST AND EXECUTIVE  
DIRECTOR OF MAST AT CEDARS-SINAI MEDICAL  
CENTER IN LOS ANGELES

***Hi - Dr Salt has drastically improved my quality of life with his recommendations to improve my gut health!***

— K.S., TECHNOLOGY SPECIALIST

***I am so grateful for you and the work you do- you really saved my life a few years ago! Will share the book too. Thanks!***

— A.Q., OCCUPATIONAL THERAPIST

***Thanks for all of your help. Seriously, thank goodness I found you!***

— L.F., HOSPITAL WRITER AND CREATIVE  
DIRECTOR

***Also, I was thinking about the quote you read to me from one of your colleagues talking about how the patient has to take an active lead in the treatment and work in partnership with the doctor (I'm paraphrasing). I was thinking about where that should go in your new book, and it occurred to me that perhaps it should be a foreword that is read before the patient ever even ventures into the meat of the subject. That way the reader knows from the get-go that the ball is in his or her court which is a different way of thinking than most traditionally approach their doctor-patient relationship.***

— T.M., CORPORATE VICE PRESIDENT AND  
SENIOR GENERAL COUNSEL (RETIRED)

***I am so thankful for all of Dr. Salt's time and expertise over the years! I don't feel on fire anymore! Thank you, Dr. Salt, for all of your diligence to helping people get control of their symptoms and live better!***

— P.G.

***You're one of a kind, Dr Salt. I pray you know what a significant contribution you have made for medicine at large and in the lives of so many individuals and their families. May God Bless you abundantly!***

— A.M., RN

*And it's probably honest, in a way, to give the overview and be clear in multiple ways that things are complex — that the solution is not just a pill away and that you (whether you like it or not) are going to have to be in the driver's seat for your health care or at least share the front seat with your physicians. That's one of the hardest things, I expect, for patients to accept — that they cannot surrender themselves to a physician and not work on assisting in diagnosis and treatment. I've spent the last 5 years trying to come to terms with these facts and trying to learn how to work on my health while doing all the other things I have to do and want to do.*

— S.B., COLLEGE ENGLISH PROFESSOR

*The regard with which you engage me and listen to me as a collaborative partner in my health care have made me not just a better, healthier patient, but a more knowledgeable and confident resource for lots of patients you've never met. I expect this wonderful book will grow those numbers of patients helped by William Salt II, MD, even more. Thank you from the bottom of my heart.*

— E.G.R., RECRUITER

*Truly, Dr. Salt, you are the kindest (and the most committed, passionate, caring, knowledgeable, experienced - and CURIOUS - which I view as one of the most important traits!) physician I have ever met. You think deeply, and from my recent experiences with the medical community, that is very rare these days.*

— G.L., PHD, LINGUISTICS



*Dr Salt, thank you so much for writing this book. I downloaded the book and fell in love just through the preface! Now I have to tear myself away so I can finish my work day! I truly appreciate your integrated approach to gastroenterology, it has changed my life. Further, I look forward to my appointments with you because I know I will learn something new and I am eager to bring things I have learned to you.*

— M.S., PATIENT

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# DEDICATION

*This book is dedicated to my patients who entrust me to care for and teach them as we collaborate to achieve gut and whole health. Reciprocally, they enrich my life by teaching and inspiring me to keep learning and improving.*

*And*

*to Susan Salt, my wife of over half a century.*

*She knows very well ...*

***Medicine is a jealous mistress;  
she will be satisfied with no less.***

— SIR WILLIAM OSLER, THE “FATHER OF  
MODERN MEDICINE,” 1904

*And*

*to Barb Weber, great friend and editor par excellence!*



**Susan Salt and Barb Weber**

# PREFACE & FREE READER UPDATES

As a gastroenterologist, I know most patients suffering with the diseases and disorders of the book subtitle aren't receiving accurate diagnosis and good care.

## A TRIAD OF SYMPTOMS

They almost always present with a triad of chronic symptoms:

- abdominal pain/discomfort – some refer to the symptom as discomfort rather than pain,
- gas – abdominal bloating, distention (enlargement), flatulence, and/or noisy rumbling/grumbling, and
- bowel dysfunction – diarrhea, constipation, or both.

## IRRITABLE BOWEL SYNDROME

They're usually diagnosed with irritable bowel syndrome (IBS), a diagnostic error. Inaccurate and inefficient diagnosis underlie ineffective and costly management and treatment.

## OTHER ILLNESS & DISEASE

I've long been fascinated trying to understand why most of these patients also suffer with other gastrointestinal (GI) symptoms along with associated symptoms, syndromes, and diseases involving other organ systems. But, I know the reason now.

## THE FIRE

The reality is, they—along with the rest of us—are on **FIRE** to some extent. This systemic chronic inflammation and harmful effects of the stress response result in cellular mitochondrial-metabolic dysfunction that can affect any organ system of the body, including the brain.

## ALL DISEASE BEGINS IN THE GUT

This **FIRE** usually originates in the gut of the GI tract (ie, the small intestine and colon), where the microbiome orchestrates the interrelationship of a triad of factors:

- genetics or “nature,”
- environment or “nurture,” and
- gut barrier function, where impairment results in “leaky gut.”

This “Fasano Triad” is responsible for multiple dimensions of your health:

- whether you get sick,
- what symptoms and diseases develop,
- symptom severity,
- which bodily systems are involved, and
- your prognosis.



This is why the book can help all of us, no matter what chronic illness and disease may be present, even if symptoms aren't present.

## QUOTES TO GUIDE & INFORM

The carefully selected quotes in the next section will give you a pretty good idea of what I'll be teaching if you have the symptom triad and/or have been diagnosed with one or more of the disorders and diseases in the book subtitle.

## ALLOW ME TO KEEP YOU INFORMED.

The content of this book is a rapidly moving target.

Ebook versions will be automatically updated. Print versions will also be updated, enabled by a technology "print on demand." Please register your email address on my website to be notified when updates and new versions are published.

<https://foryourgut.com/>

## ILLUSTRATIONS

This book has nearly 200 color figures with explanatory text for each to enhance understanding.

They are necessarily in grayscale in the standard print version and ebook readers that don't display color. If you want to see the color figures, visit the book page on my website and I'll explain how to do this.

[ForYourGut.com/Dr-Salts-Book](https://foryourgut.com/Dr-Salts-Book)

## QUOTES TO GUIDE & INFORM

These quotes capture the quintessence of my book.

***The mind and the body cannot be separated.***

— HERBERT BENSON, MD, HARVARD  
CARDIOLOGIST, PIONEER IN MIND-BODY  
MEDICINE, AND AUTHOR OF SEVERAL BOOKS,  
INCLUDING *TIMELESS HEALING*

***The whole is more than the sum of its parts.***

— ARISTOTLE

***All disease begins in the gut.***

— HIPPOCRATES, THE “*FATHER OF MEDICINE*”

***All disease begins in the (leaky) gut.***

***The gut is not like Las Vegas. What happens in the gut does  
not stay in the gut .***

— ALESSIO FASANO, MD, RENOWNED HARVARD  
PEDIATRIC GASTROENTEROLOGIST

***The microbial ecosystem in the gut must be healthy for you to be healthy.***

— MARK HYMAN, MD, INTERNATIONALLY  
RECOGNIZED LEADER, EDUCATOR, AND  
ADVOCATE IN THE FIELD OF FUNCTIONAL  
MEDICINE

***There's a brain-in-the-gut.***

— JACKIE D. WOOD, PHD, PROFESSOR OF  
PHYSIOLOGY AND CELL BIOLOGY, THE OHIO  
STATE UNIVERSITY

***The health of our gut directly impacts the health of our brain.***

***These same chemicals found in the brain are also produced in the gut, and that their availability to the brain is largely governed by the activity of gut bacteria, we are forced to realize that ground zero for all things mood-related is the gut.***

— DAVID PERLMUTTER, MD, AMERICA'S  
NEUROLOGIST, AUTHOR OF *GRAIN BRAIN*,  
*BRAIN MAKER*, AND *DROP ACID*

***The brain energy theory offers a new model of mental health. It's about much more than just brain function; it's about metabolism and mitochondria [at the cellular level] which impacts all aspects of human health, aging, and longevity. The new model cuts across diagnostic categories and addresses many disorders all at once.***

— CHRISTOPHER PALMER, MD, HARVARD  
PSYCHIATRIST AND AUTHOR OF *BRAIN ENERGY*

***Disease begins at the cellular level, when cells are starved of the building blocks they need to conduct the chemistry of life properly, and the root of optimal health begins with taking away the things that harm and confuse our cells while providing the body with the right environment in which to thrive.***

— TERRY WAHLS, MD, AUTHOR OF *THE WAHLS  
PROTOCOL*

***You've always had the power my dear; you just had to learn it for yourself.***

— GLINDA (THE GOOD WITCH), THE WIZARD  
OF OZ

***As a gastroenterologist, I've come to view gastrointestinal illness and disease through a much broader scope (pardon the pun). I'll show you how to see what I call the "Integrative Gut-Focused Whole Picture."***

— THE AUTHOR

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# HOPE & SOLUTIONS

## QUESTIONS FOR YOU & YOUR DOCTOR WITHIN

***The answers you get depend upon the questions you ask.***

— THOMAS KUHN, AUTHOR OF *THE STRUCTURE  
OF SCIENTIFIC REVOLUTIONS*

***You can't accept what you don't understand.***

— BARB WEBER, FORMER EDUCATOR AND  
EDITOR OF THIS BOOK

***Use the Force, Luke!***

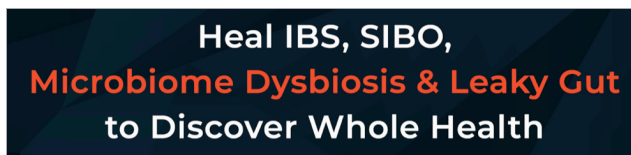
— BEN OBI-WAN KENOBI, STAR WARS

WHO ARE YOU?

Are you intrigued by the title of the book? Did you select this book because you've been diagnosed with, or believe you have, one or

more of the ***gastrointestinal*** (GI) disorders or diseases in the subtitle of the book?

This is *indeed* a book with a focus on diagnosis and management of the most common GI maladies included in the book subtitle ...



HOPE & SOLUTIONS 1.1 — Book Subtitle: Heal IBS, SIBO, Microbiome Dysbiosis & Leaky Gut to Discover Whole Health

But the focus of this book would be too narrow without clarifying and emphasizing an important reality ...

**You're in an epidemic of chronic illness and disease. This is true whether or not you have GI pain, symptoms, or one or more of these diagnoses.**

**Everything is connected!**

WHO AM I?

First, I'll share my professional journey and how as a ***gastroenterologist*** (ie, specialist with expertise in the disorders and diseases that affect the digestive system) I came to view GI illness and disease through a much broader scope (pardon the pun). Then I'll show you how to see what I call ...

### **The Integrative Gut-Focused Whole Picture**

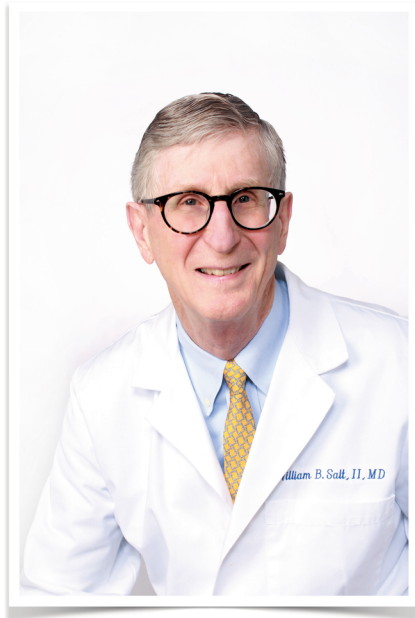
I wrote this introduction, HOPE & SOLUTIONS, with Susan and Barb so you could decide if you want to read my book. Everything is explained in simple language; over 200 illustrations emphasize



visual learning. My focus is teaching you, the layperson, how to discover gut and whole health.

I'm an Ohio State and Vanderbilt trained MD, board-certified gastroenterologist with over 45 years of experience practicing and educating health care professionals, my patients, and the public. As a student of medicine and life—and thanks to my patients—I've come to see these chronic symptoms, disorders, and diseases very differently since becoming a doctor. I've become an ***integrative gastroenterologist*** (ie, combining conventional with complementary gastroenterology and medicine). And, of course, I'm gut focused since **all disease begins in the gut**. You can learn more about me on my website ...

<https://foryourgut.com/about>



HOPE & SOLUTIONS 1.2 — William B. Salt II, MD

I always wanted to become a doctor. My role model was our family doctor, Howard “Bud” Mitchell. I admired his ability to care for the “whole person.” Although academics had always been relatively easy for me, shortly after entering medical school I found myself surrounded by extremely intelligent students. I was quickly overwhelmed with how much there was to know in family medicine and, instead, entered the Vanderbilt University Internal Medicine Residency Program to focus upon care of adults. There, I found most residents chose a more specialized medical field; I chose gastroenterology.

I returned to Columbus (Bexley), Ohio in 1977 to join a solo gastroenterologist, Rob Ludwig, MD, associated with Mount Carmel Health.<sup>1</sup> The practice rapidly grew to five doctors. At that time, colonoscopies were in their infancy and not in demand as they are today. The patient/doctor relationship was very important to all of us and, accordingly, we scheduled plenty of time for clinic visits.

Our small group merged in 1995 with two others forming the first large single-specialty group in the United States: Ohio Gastroenterology Group, Inc.<sup>2</sup> The merger was economically very successful, but, as time went on, the increasing emphasis in the group was on performance of procedures rather than patient satisfaction. Time with patients in the clinic was very limited, compromising doctor/patient communication and clinical outcomes.

This way of “doctoring” was making me “sick.” It wasn’t the way I wanted to practice. I was “pooped” (again, pardon the pun) and needed mind and body respite. I retired in 2009 and headed to Sanibel Island with Susan and our beloved Springer Spaniels (Buck and Larry) for a well earned life of leisure.

As they say, “You can take the boy out of the country, but you can’t take the country out of the boy” ... that was pretty much me. Finally afforded the time to read extensively and broadly, I began to see a bigger picture than focusing on gastroenterology. In 2011, I coau-

thored a book, *Still Hurting? Find Health! Discover What's Behind Your Symptoms (That Doctors Can't Explain)*, with an old friend, Thomas L. Hudson, MDiv, JD. Research was evolving confirming the importance of things I had long suspected:

- problems with gut-brain interaction have a lot to do with causation of chronic GI disorders,
- resident microbes (gut microbiome) and gut protective barrier function are very important for both gut and whole health, and
- we're all in an epidemic of chronic gut and bodily symptoms, syndromes, illness, and disease with a root cause originating in the gut linking them.

After flunking retirement, I was compelled to share my vision with suffering patients—I suspect like yourself—and to continue refining the **Integrative Gut-Focused Whole Picture**. I returned to the group I left to resume care (diagnosis and treatment only; no procedures) and continue my exploration. For several reasons you likely suspect, this didn't go well.

In spring of 2016, with Susan's help, I opened **IBS & Gut Microbiome Solutions**,<sup>3</sup> an integrative direct-care GI practice enabling sufficient time to spend with each patient. **Integrative** recognizes the complementary benefit of combining the best of gastroenterology with integrative, functional, naturopathic, and alternative medicine. Noninvasive diagnostic testing utilizing blood, breath, and stool is emphasized; prescription-requiring drugs are only used when necessary. Very few gastroenterologists practicing today are what I consider integrative.

The practice is now exclusively direct-care telemedicine based. I no longer perform procedures (eg, colonoscopy, endoscopy). Since most patients haven't had a small intestinal evaluation, I do offer small intestinal videoendoscopy with **CapsoCam Plus**.<sup>4</sup>

## WHAT'S MY BOOK ABOUT?

You can review my website book page:

<https://foryourgut.com/dr-salts-book>

I began writing this book two years into my current practice and published the first version on Leanpub.com in November 2019. It has been updated several times. I've completely rewritten the book published in October/November 2023 to include my view of the Integrative Gut-Focused Whole Picture with the assistance of Susan and my editor, Barb Weber, friend and former educator. (She tortures me mercilessly to simplify, stay on task, and do what Susan has repeatedly reminded me: **the book must be easy to comprehend and illustrated to promote understanding!** Susan and Barb are truly partners in a good and well-meaning crime!)

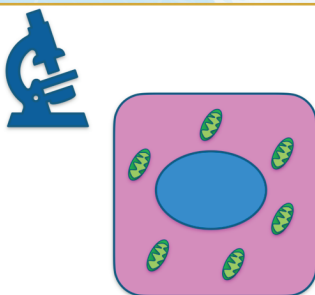
This new version of my book is available on Leanpub in ebook and PDF formats; both include the illustrations in color. My patients have free access to the ebook with a coupon I provide.

The book is now available to the public as an ebook and paperback (black and white) through online booksellers. The illustrations are necessarily in grayscale in the standard print and ebook readers that don't display color. Those who purchase the print version and want to see the figures in color, visit the book page on my website.<sup>5</sup>

## REMEMBER HIGH SCHOOL BIOLOGY AND THE CELL?

**I really think we all need a little review. For some of us, it's been a long time.**

## The Cell: Where Life, Illness & Disease Begin



### HOPE & SOLUTIONS 1.3 — The Cell: Where Life, Illness & Disease Begin

A microscope is needed to see a single **cell** (*represented by the square with rounded corners*). It's the smallest unit (ie, building block) of an organism made of one cell (eg, bacteria) or many trillions of cells (eg, human). The **cell wall** (*thin line encasing a cell*) provides protection and defines the shape of the cell that can be various sizes and shapes.

Each cell contains a **nucleus** (*large blue egg-shaped*), **mitochondria** (*green ovals*), and **cytoplasm** (*pink gelatinous liquid*).

### NUCLEUS

The nucleus in the middle of the cell is the cell's command center. This important organelle contains 22 pairs of **chromosomes** (total 44) with one pair of sex chromosomes (X and Y) for a total of 46. In every chromosome there is one **DNA molecule** (ie, the hereditary material in humans and almost all organisms). A **gene** (ie, the basic unit of heredity passed from parent to child) is a short piece of DNA.

Available online, Cleveland Clinic offers an informative discussion titled *DNA, Genes & Chromosomes*.<sup>6</sup>

## MITOCHONDRIA

The mitochondria, found in large numbers in a single cell, act as power plants generating energy and heat. When the mitochondria are defective, the cells don't have enough energy. Without energy, life can't be sustained. Even in healthy people, research confirms mitochondria can gradually deteriorate as we grow older. Malfunctioning mitochondria have been linked to diabetes, heart disease, metabolic syndrome, Alzheimer's disease, Parkinson's disease, cancer, and normal aging.

Note: Singular of mitochondria is *mitochondrion*.

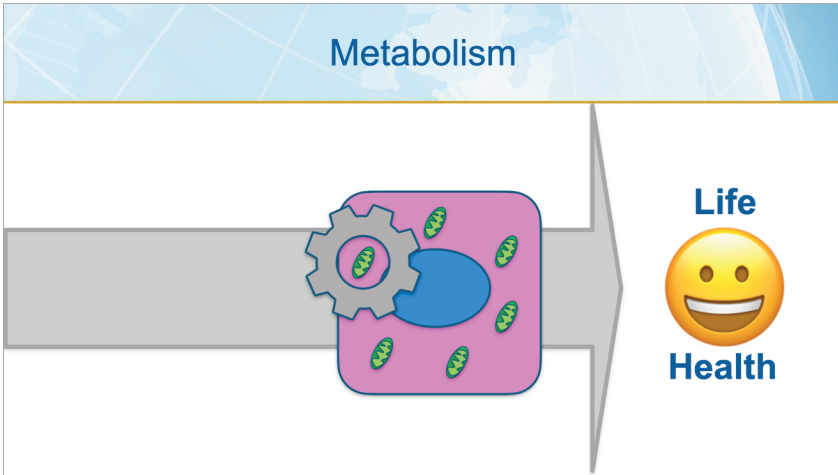
## CYTOPLASM

Cytoplasm is the gelatinous liquid that fills the inside of a cell. It's composed of water, salts, and various organic molecules. The cytoplasm contains components called *organelles* (eg, nucleus and mitochondria) that have specific jobs.

**This is where we must begin if we're to understand the depth of where all life, health, illness, and disease begins, including the disorders and diseases comprising the subtitle of this book.**

WHAT'S METABOLISM, AND WHAT DOES IT HAVE TO DO WITH THE EPIDEMIC?

**Metabolism is so much more than burning calories! It determines life and health, good and bad.**



HOPE & SOLUTIONS 1.4a — Metabolism

The cell controls *metabolism*. The *gray gear* surrounding the mitochondrion represents cellular metabolism; mitochondria drive metabolic function. Cellular metabolism is the product of chemical processes within the cell necessary for maintenance of life.

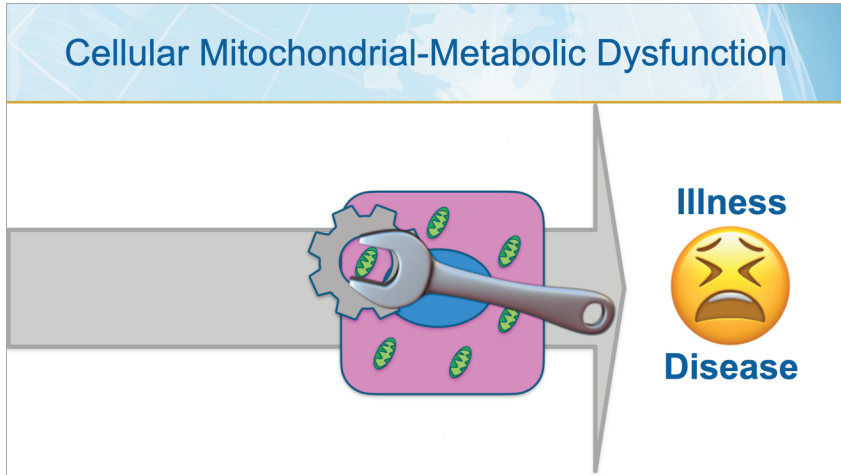
The average cell contains 300 to 400 mitochondria; the body contains 10 million billion of these tiny power plants. Mitochondria comprise 10% of body weight. Metabolically demanding cells (eg, brain, heart, muscle cells) can contain thousands of mitochondria.

Collectively, all the cells in the body are responsible for (bodily) metabolism, represented by the *large gray arrow*, affecting all aspects of bodily function. This image depicts normal cellular mitochondrial-metabolic function.

**Life and health are good!**

**BUT, WHAT HAPPENS WHEN LIFE GETS DIFFICULT?**

**It's impossible to avoid.**



HOPE & SOLUTIONS 1.4b — Cellular Mitochondrial-Metabolic Dysfunction

To some extent for all of us, life “throws a *monkey wrench* in the works” of our cells, causing disruption of normal cellular mitochondrial-metabolic function. When the monkey wrench slows or stops the gear from working properly, illness and disease result.

**Life and health can be bad!**

WHAT DO YOU MEAN, WE'RE ALL ON FIRE?

**Here comes the flame!**





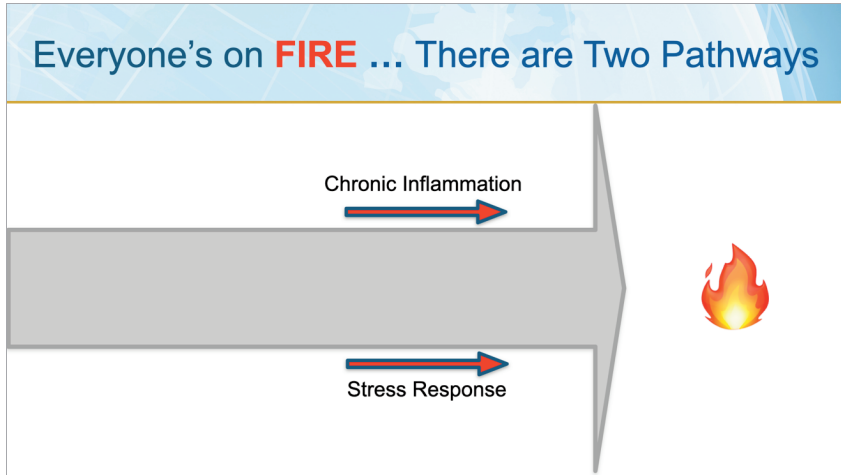
HOPE & SOLUTIONS 1.4c — Here Comes the FIRE!

Throughout the book, cellular mitochondrial-metabolic dysfunction is represented by a *flame* in illustrations and **FIRE** (bold caps) in text. **FIRE** is the root cause underlying and linking chronic illness and disease.

It's true, we all have cellular mitochondrial-metabolic dysfunction and are on **FIRE**!

WHAT'S CAUSING THE FIRE?

**Two forces of nature.**

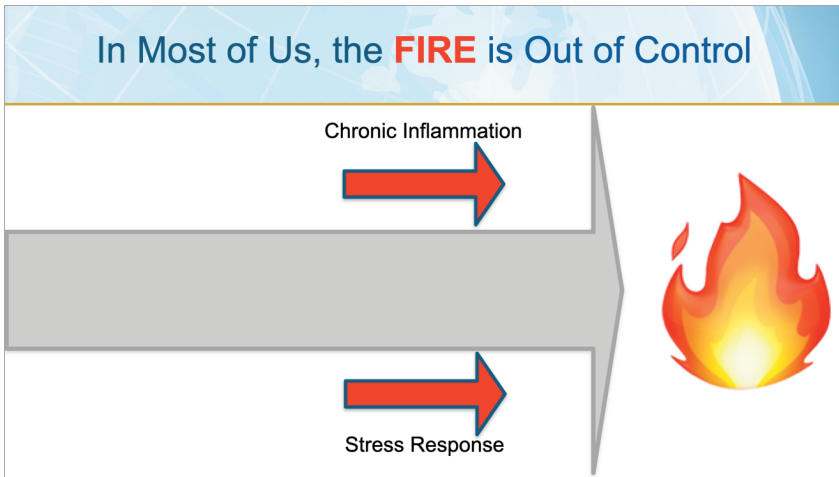


HOPE & SOLUTIONS 1.5a — Everyone's on FIRE ... There are Two Pathways

This illustration depicts an average person with controlled inflammation and stress.

There are two pathways (*thin red arrows*) leading to cellular mitochondrial-metabolic dysfunction:

- chronic inflammation (immune-mediated) and
- the harmful physiologic effects of the chronic stress response.



HOPE & SOLUTIONS 1.5b — In Most of Us, the FIRE is Out of Control

This illustration depicts a person with uncontrolled inflammation and stress response.

As chronic inflammation and the harmful physiologic effects of the stress response increase (*enlarged red arrows*), **FIRE** intensifies and the flame enlarges. No one can avoid **FIRE**. It burns within all of us. Everyday living produces inflammation and stress; that's a fact of life!

**Good health depends upon keeping inflammation and the stress response at a controlled level.**

But **HOW?** Well ...

**It's complicated,**

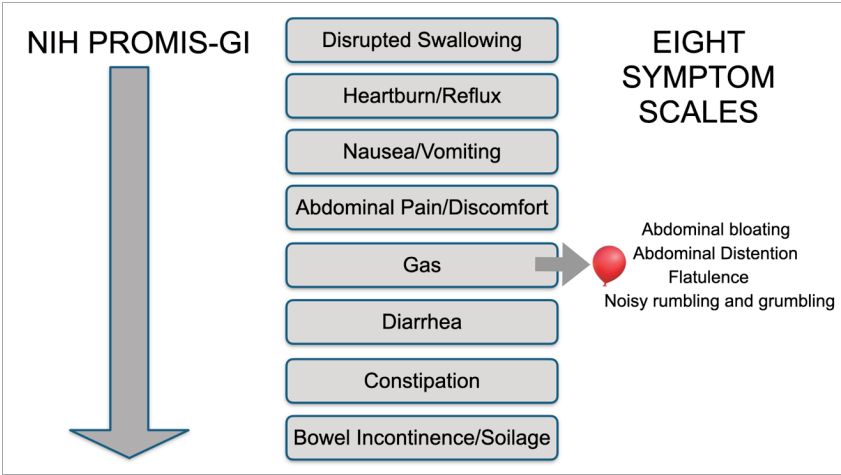
and this isn't the right time to "get into the weeds" (so to speak). Full explanation and clearer understanding will be presented in Chapters 6, 7, and 8. What's important to understand at this juncture is the correlation of **FIRE**, chronic inflammation, and the stress response.

DO YOU HAVE CHRONIC GI SYMPTOMS?

**I think that’s why you’re here!**

**PROMIS**

Based upon extensive research, the National Institutes of Health (NIH) created a ***Patient-Reported Outcomes Measurement Information System (PROMIS)*** to assess for GI symptoms. This instrument helps patients express, and doctors/health care professionals (HCPs hereafter in the book) understand, GI symptoms from a patient’s perspective.



**HOPE & SOLUTIONS 1.6a — The National Institutes of Health (NIH) PROMIS GI Eight Symptom Scales**

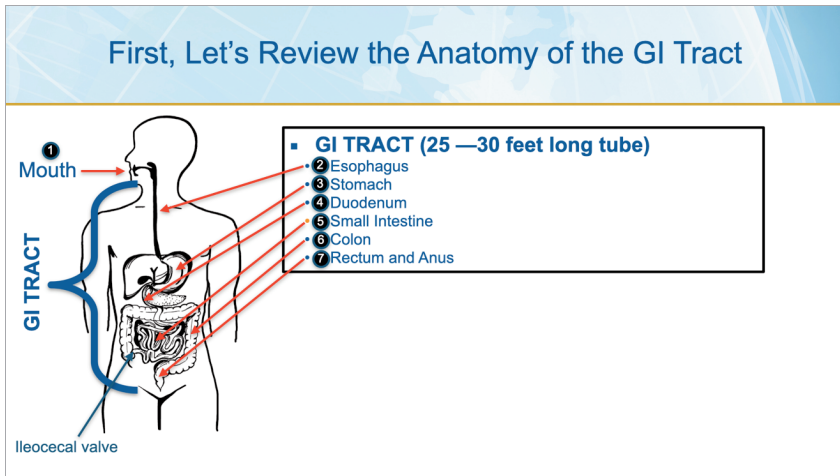
There are eight GI symptoms on the scale:

- disrupted swallowing,
- heartburn/reflux,
- nausea/vomiting,
- abdominal pain/discomfort (“belly pain”),
- gas – bloating/distention/flatulence/noisy rumbling,

- diarrhea,
- constipation, and
- bowel incontinence/soilage.

BUT FIRST, PERHAPS A SHORT GI ANATOMY LESSON WOULD HELP?

**I promise, just the basics!**



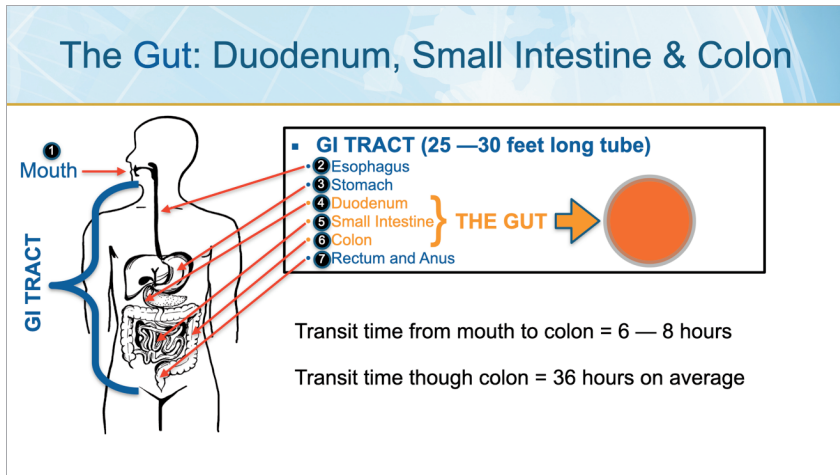
HOPE & SOLUTIONS 1.6b — First, Let's Review the Anatomy of the GI Tract

The GI tract is 25 to 30 feet long. Digestion begins in the (1) **mouth**, even if ingested caloric content isn't swallowed (eg, chewing gum, mints). It passes down the tube of the (2) **esophagus** into the (3) **stomach**. The (4) **duodenum** is the first part of the (5) **small intestine** (15 to 20 feet long) and where digestion and absorption occurs. (Note: The small intestine is generally relatively sterile.) It also serves a very important “protect and defend” function. The undigested fluid content then passes into the (6) **colon** through the **ileocecal valve** (ie, a circular muscle situated at the end of small intestine and the start of the colon) into the right lower quadrant

(RLQ) where fluid is absorbed and stool collects until defecation occurs through the (7) *rectum and anus*.

I'LL BE TALKING A LOT ABOUT YOUR “GUT.” DO YOU KNOW WHAT THE TERM MEANS?

**This is important.**



**HOPE & SOLUTIONS 1.6c — The Gut: Duodenum, Small Intestine, and Colon**

Throughout the book, the *gut* (duodenum, small intestine, and colon combined) will be represented by an *orange circle*. On average, transit time from mouth to colon is around 6 to 8 hours; mouth to defecation is 36 hours.

ARE YOU READY TO EXPLORE THE EIGHT NIH GI SYMPTOM SCALES?

**Here’s an overview of each symptom.**

## DISRUPTED SWALLOWING

Often referred to as **dysphagia** (ie, difficulty or discomfort in swallowing), there is the sense of solid and/or liquid foods sticking, lodging, or passing abnormally through the esophagus. This symptom is an indication for further evaluation of the esophagus to determine the specific cause.

## HEARTBURN/REFLUX

Heartburn is discomfort or pain located in the center of the chest under the **sternum** (ie, breastbone). **Reflux** is the return of stomach content up into the esophagus and, in some cases, into the mouth. Heartburn/reflux is also an esophageal symptom.

## NAUSEA/VOMITING

Chronic **nausea** (ie, feeling of sickness with an inclination to vomit without vomiting) is considerably more common than chronic vomiting. These symptoms implicate the stomach. Note: Nausea is a common symptom that may not necessarily be of GI tract origin.

## ABDOMINAL PAIN/DISCOMFORT

Some patients don't describe the symptom as pain, often explaining it as discomfort instead. Chronic abdominal pain is defined as persisting for more than 3 months. It's one of the focuses of this book. Abdominal pain is the most common GI symptom leading to ambulatory medical visits

## GAS

There are four predominant symptoms of gas:

- abdominal bloating – the sense of abdominal fullness or tightness without actual enlargement,
- abdominal distention – true abdominal enlargement,
- flatulence – excessive farting, and
- noisy abdominal rumbling and grumbling – medically referred to as ***audible borborygmi***.

Gas symptoms implicate the small intestine and/or colon (collectively referred to as the gut) as the symptom source.

### **DIARRHEA (AND LOOSE STOOLS)**

Diarrhea and loose stools implicate the small intestine and/or colon of the gut.

### **CONSTIPATION**

Constipation is a colon and rectal symptom.

### **BOWEL INCONTINENCE/SOILAGE**

This is recurrent uncontrolled passage of fecal material. It's a rectal and anal symptom, usually worsened with any disorder or disease causing diarrhea.

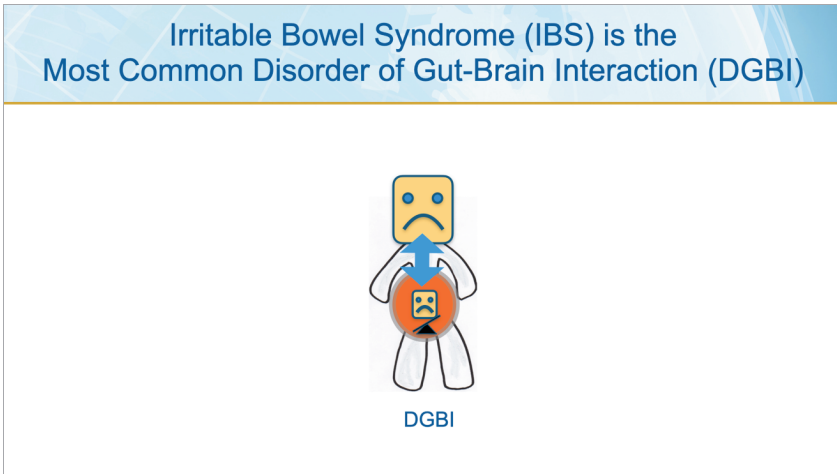
Each of these eight NIH GI symptoms is commonly reflective of a ***Disorder of Gut-Brain Interaction (DGBI)***.<sup>7</sup> None are explained by medical testing with scopes, X-rays, and scans. DGBIs affect 40% of both children and adults. They persist for at least 3 months and don't become progressively worse.

DGBIs are a very large part of the epidemic of chronic illness and disease. You'll learn more about them in Chapter 4.



Throughout this book, DGBIs will be represented by the *homunculus* figure (Latin for “little person”) in Figure 1.6d below.

DID YOU KNOW IBS IS THE MOST COMMON DISORDER OF GUT-BRAIN INTERACTION?



**HOPE & SOLUTIONS 1.6d — Irritable Bowel Syndrome (IBS) is the Most Common Disorder of Gut-Brain Interaction (DGBI).**

Diagnosis of IBS has been around for many, many years as a *syndrome* (ie, a collection of symptoms occurring together) without explanation of cause. I’ll be emphasizing over and over throughout the book ...

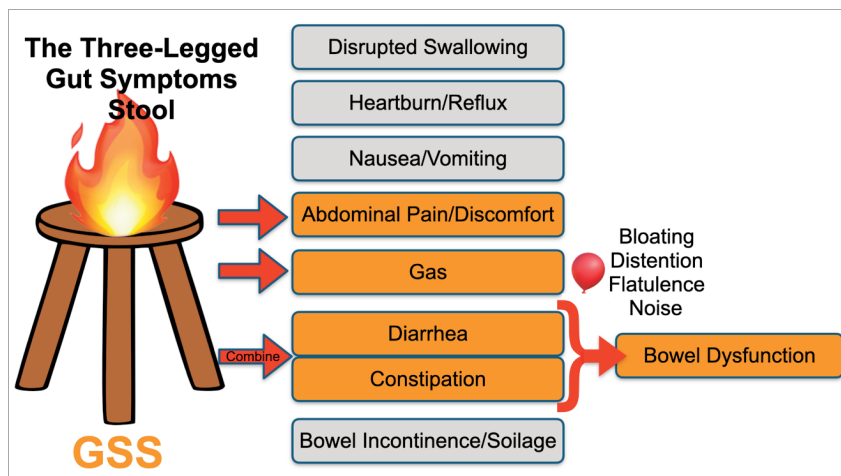
**Making an initial diagnosis of IBS is a mistake!**

IBS symptoms can be caused by ...

- a disorder of gut-brain interaction (DGBI), **or**
- one or more disorders I’ll be calling the “Pick Six,” utilizing a football analogy for understanding, **or**
- both a DGBI and one or more of the “Pick Six.”

## ARE YOU SITTING ON THE THREE-LEGGED GUT SYMPTOMS STOOL?

**You probably are if you have IBS symptoms or have been diagnosed with IBS!**



HOPE & SOLUTIONS 1.7a — Are You Sitting on the Gut Symptoms Stool (GSS)?

The **stool** (ie, the gut symptoms stool) represents a **triad** (ie, three) of the NIH GI gut symptoms (**red arrows**) when diarrhea and constipation are combined as bowel dysfunction.

**Enteropathy** is the medical term for this triad of symptoms.

However, Susan and Barb both think the term is confusing and insisted we find a better alternative. Thus born ... the **GSS** identifies the triad of symptoms of disease in the gut:

- abdominal pain/discomfort,
- gas – abdominal bloating, distention, flatulence, and/or rumbling-grumbling, and
- bowel dysfunction – diarrhea, constipation, or both.

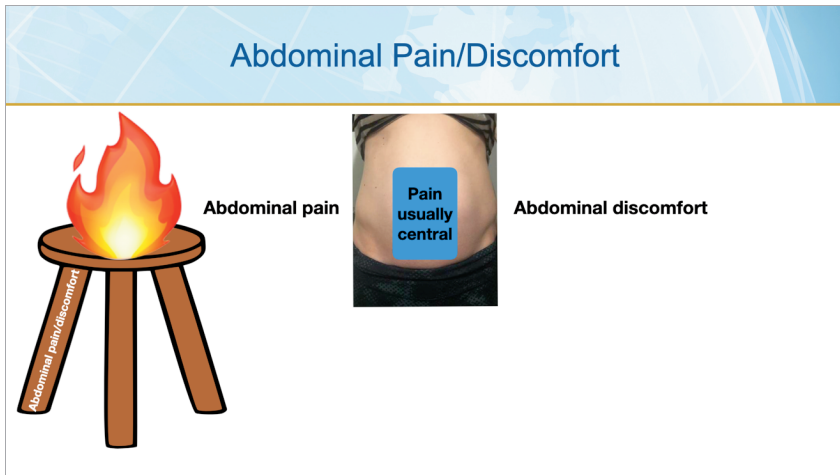
Notice the **GSS** comprises half of the NIH GI Symptom Scales.

To be clear, when the **GSS** is recognized in the absence of “red flag” concerning features, such as blood in the stool (Chapter 10), irritable bowel syndrome (IBS) is usually the initial diagnosis of the **GSS**. But, remember, this is usually a BIG MISTAKE because, in most cases, it stops the doctors/HCPs from looking deeper into causes(s) of symptoms. Furthermore, the patient usually accepts his or her fate and moves on.

Note: In the book, **GSS**, the gut symptoms stool acronym, will always appear in bold font.

### ABDOMINAL PAIN/DISCOMFORT

Let’s look at the first of the three legs.



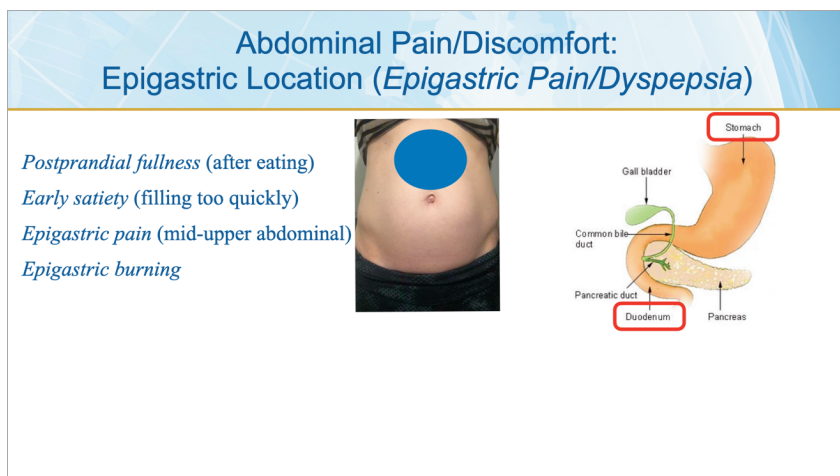
HOPE & SOLUTIONS 1.7b — Abdominal Pain/Discomfort

### USUAL LOCATION

This pain/discomfort is usually located centrally in the abdomen around the belly button (*umbilicus; periumbilical*) and/or in the

lower central abdomen below the belly button (*hypogastrium*). The pain/discomfort can either be constant or *colicky* (ie, waxing and waning severity). Eating commonly triggers abdominal pain/discomfort, usually after 30 minutes. Abdominal tenderness on examination is commonly present. Abdominal pain/discomfort will be further discussed in Chapter 9 where I'll help you express your symptoms.

There's a special type of abdominal pain/discomfort shown in the next figure.



**HOPE & SOLUTIONS 1.7c — Abdominal Pain/Discomfort: Epigastric Location (*Epigastric Pain/Dyspepsia*)**

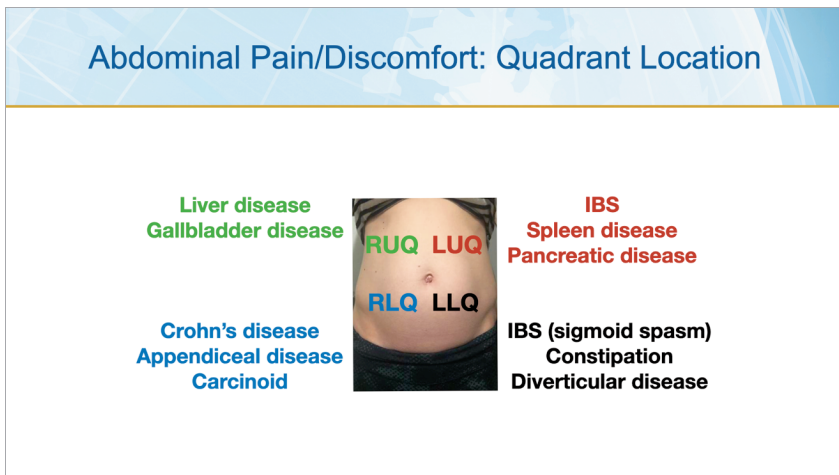
## **EPIGASTRIC LOCATION: DYSPEPSIA**

The upper middle abdomen is called the *epigastric* location or *epigastrium*. Abdominal pain/discomfort located here is often referred to as “*indigestion*,” which isn’t a medical term. It should be considered *epigastric pain* or *dyspepsia* and may or may not be related to eating. Epigastric pain/dyspepsia usually implicates either the stomach and/or duodenum (*red rectangles*) as the source with various symptoms:

- postprandial fullness – after eating,
- early satiety – filling too quickly,
- epigastric pain, and/or
- epigastric burning.

## QUADRANT LOCATION

Abdominal pain and/or tenderness localized to one of the four abdominal quadrants is atypical (ie, unusual) for IBS and can implicate a localized disease.



HOPE & SOLUTIONS 1.7d — Abdominal Pain/Discomfort: Quadrant Location

- **RLQ** (right lower quadrant) – Crohn's disease; appendiceal disease; *carcinoid* (ie, slow growing cancerous tumor)
- **RUQ** (right upper quadrant) – liver or gallbladder disease
- **LLQ** (left lower quadrant) – IBS with sigmoid spasm, constipation, diverticular disease
- **LUQ** (left upper quadrant) – IBS, spleen disease, pancreatic disease

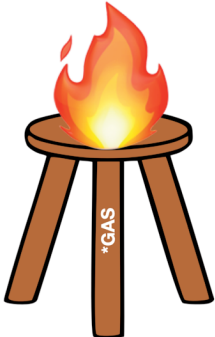
**GAS**

Let's now look at the second leg of the **GSS**.

**First, consider the "Four Fs"**

- Fat (central obesity)
- Fetus (pregnancy)
- Flatus (gas)
- Fluid (ascites)

## GAS: Four Possible Symptoms



- Abdominal bloating
- Abdominal distention  
(enlargement)
- Flatulence  
(farting)
- Abdominal rumbling & grumbling

**HOPE & SOLUTIONS 1.7e — GAS: Four Possible Symptoms**

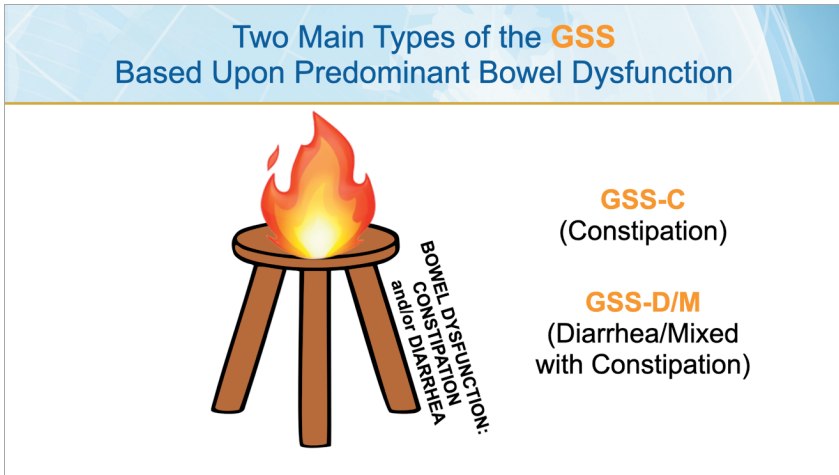
There are four gas symptom complexes:

- bloating – a sense of tightness or fullness that often develops after eating,
- distention – abdominal enlargement, usually accompanying abdominal bloating,
- flatulence – passing gas or farting (the average number of farts daily is 14; it's normal to fart up to 21 times a day!), and
- noisy abdominal rumbling and grumbling (audible borborygmi) – caused by overactive gut contractions (motility or peristalsis).

We'll further explore abdominal bloating/distention in Chapter 9.

## BOWEL DYSFUNCTION

And finally, here's the third leg of the **GSS**.



HOPE & SOLUTIONS 1.7f — Two Main Types of the GSS Based Upon Predominant Bowel Dysfunction

We recognize two main types of the third leg of the **GSS** based upon predominant bowel dysfunction:

- **GSS-C** (constipation) and
- **GSS-D/M** (diarrhea/mixed with some constipation).

As you'll soon understand, combining diarrhea and constipation into one type is an important concept.

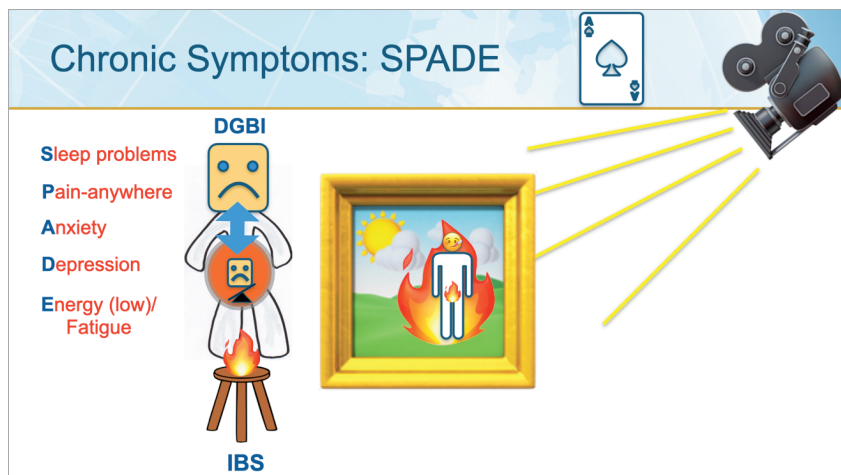
DO MOST PATIENTS WITH IBS & OTHER DISORDERS OF GUT-BRAIN INTERACTION ALSO SUFFER WITH ADDITIONAL ILLNESS & DISEASE?

Yes! These symptoms, syndromes, illnesses, and diseases can affect any organ system. Let's take a closer look.

## FIRST, DO YOU HAVE SPADE OR SPADE FOG?

### No, this isn't a new card game!

People with IBS and other DGBIs very commonly also suffer with a collection of five symptoms (a *pentad*) known as **SPADE**.



HOPE & SOLUTIONS 1.8a — Chronic Symptoms Commonly Associated with IBS & other DGBIs: SPADE

The **SPADE** acronym was described by Kurt Kroenke, MD, an internationally respected expert in physical and psychological symptoms, and colleagues:<sup>8</sup>

- Sleep disturbance,
- Pain,
- Anxiety,
- Depression, and
- Energy (low)/fatigue.

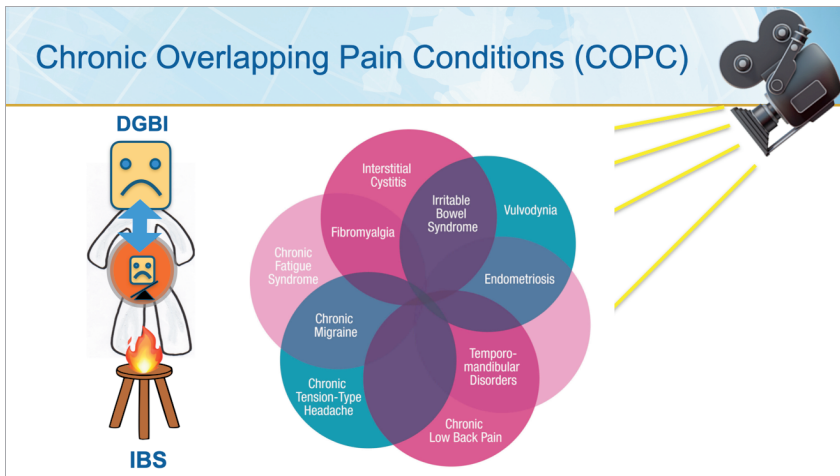
SPADE is the most prevalent and co-occurring collection of symptoms without discernible cause in the general population and clinical practice. Typical pain is described as aching, burning, and/or



stabbing. It's usually localized to the head, jaw, back, bladder, and/or pelvis, or widespread, felt in the head, neck, shoulders, arms, hips, back, buttocks, and/or legs.

I would also add ***brain fog*** to SPADE and call it ***SPADE fog***.

SECOND, DO YOU HAVE ONE OR MORE CHRONIC OVERLAPPING PAIN CONDITIONS (COPC)?



HOPE & SOLUTIONS 1.8b — Chronic Overlapping Pain Conditions (COPC)

The National Institutes of Health Pain Consortium recognizes ten overlapping pain conditions:<sup>9</sup>

- fibromyalgia,
- temporomandibular disorder,
- irritable bowel syndrome,
- myalgic encephalomyelitis/chronic fatigue syndrome,
- painful endometriosis,
- vulvodynia – involving the area around the opening of the vagina,
- urologic chronic pelvic pain syndrome,

- chronic low back pain,
- migraine headache, and
- tension-type headache.

**Note: The third COPC is irritable bowel syndrome (IBS).**

The University of Michigan Chronic Pain & Fatigue Research Center directed by rheumatologist Daniel J. Clauw, MD,<sup>10</sup> offers a COPC screener.<sup>11</sup> I also think multiple environmental sensitivity/illness deserves a place here.<sup>12</sup> The reference includes the Highly Sensitive Person-12 scale (HSP-12).

### THIRD, DO YOU HAVE MAST CELL ACTIVATION SYNDROME (MCAS)?

Mast cells are an important component of the immune-mediated inflammatory system. They excrete many biologically active molecules, the most important is *histamine*. In MCAS,<sup>13</sup> mast cells commonly become dysfunctional and extraordinarily sensitive to environmental stress and internal bodily signals. While there are serious forms of mast cell disease, they are rare. Symptoms can affect any organ system. The most common are gastrointestinal, cardiovascular, skin, respiratory, and neurologic. Typical symptoms include abdominal pain, diarrhea, flushing, hives, and episodes of low blood pressure.

Experience has taught me most of my patients with IBS and other DGBIs have a component of MCAS.

### FOURTH, DO YOU HAVE ONE OR MORE POTENTIALLY SERIOUS DISEASES?

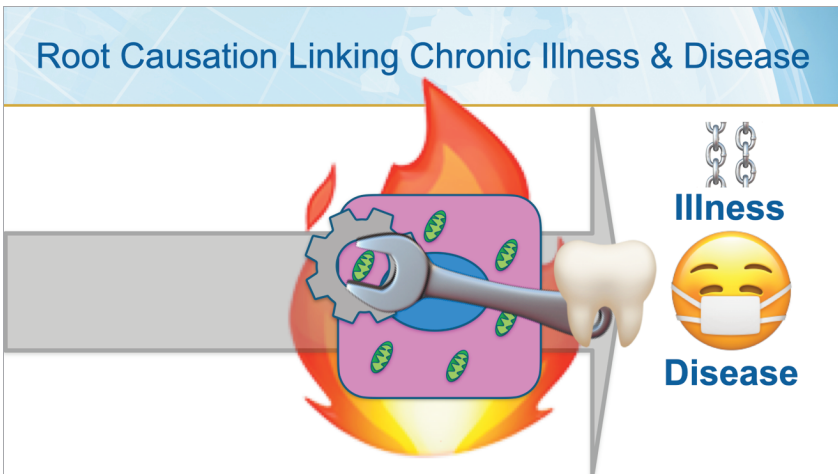
Serious and potentially life-threatening, these common ones cost hundreds of billions of dollars:

- autoimmune disease,
- overweight/obesity,
- insulin resistance,
- diabetes,
- fatty liver,
- metabolic syndrome,
- cardiovascular disease,
- mental illness,
- neurodegenerative disease, and
- cancer.

DO YOU NEED A REMINDER WE'RE ALL INVOLVED IN AN EPIDEMIC?

**It's really hard to forget.**

There's a variety of chronic multi-system symptoms, syndromes, illnesses, and diseases that commonly co-occur with IBS and DGBIs.



**HOPE & SOLUTIONS 1.8c — Root Causation Linking Chronic Illness & Disease**

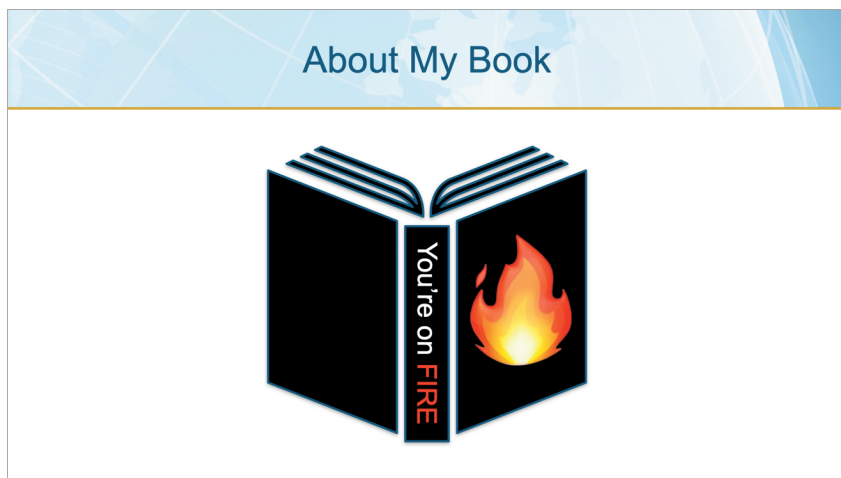
Remember, cellular mitochondrial-metabolic dysfunction is the root cause (***tooth***) linking (***chains***) all the elements of the epidemic.

CAN YOU NOW SEE WE'RE ALL ON FIRE AND WHERE WE'RE GOING?

The road's been paved; the journey begins!

WHAT ELSE DO YOU NEED TO KNOW ABOUT MY BOOK?

Here are important tips and features that will enhance your reading experience.



HOPE & SOLUTIONS 1.9 — What Else Do You Need to Know About My Book?

### READ IT FROM START TO FINISH

Resist the temptation to skip directly to PART III (Self-Care) and/or PART IV (Treatment). This introduction, HOPE & SOLUTIONS, followed by PART I (Vision) and PART II (Diagnosis), will prepare you

to heal the disorders and diseases of the subtitle (IBS, SIBO, Microbiome Dysbiosis, and Leaky Gut) to discover gut and whole health.

### INTERNAL LINKS

Links within the book will only refer to earlier references rather than later ones to encourage reading the book from start to finish.

### ILLUSTRATIONS

There are over 200 illustrations in this book. Why? Well, you should have some understanding now ...

**It's complicated!**

**But, it doesn't have to be!**

Barb and I have spent several years preparing color illustrations in Apple Keynote to make learning and understanding easier. Every chapter has at least one explanatory figure, and most chapters have several. Each illustration includes explanatory text.

See FREE READER UPDATES.

### IMPORTANT CONVENTIONS

Throughout the book ...

- Initial use of words and phrases vital to understanding will be italicized in bold font.
- **FIRE** will be capitalized and bolded emphasizing cellular mitochondrial-metabolic dysfunction and illustrated with a **flame**.
- The **GSS** (gut symptoms stool) will be capitalized and bolded. It's a triad of three symptoms.

- FIRST MENTION in each chapter of generic dietary foods and supplements will be *italicized*; brand names in **bold font**.
- FIRST MENTION in each chapter of generic prescription drugs will appear in SMALL CAPS; brand names in **bold font**.

## ARE YOU AN N-OF-1?

You certainly are! You're unique. There's no one else like you.

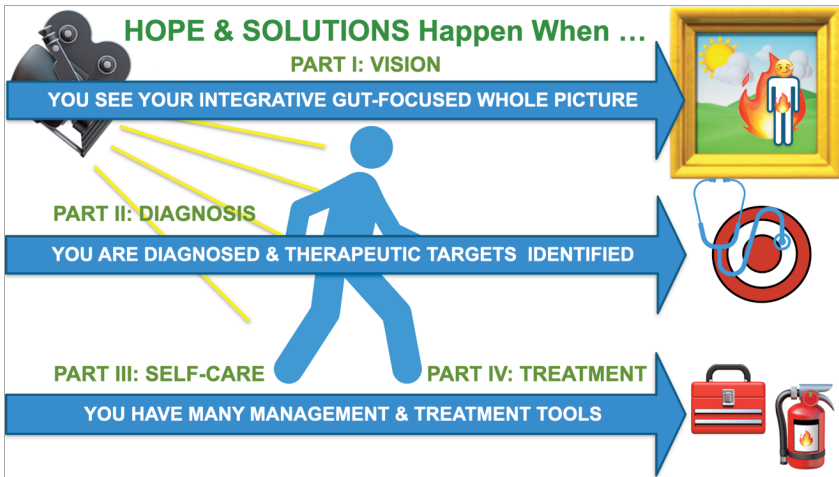
In research, an N-of-1 involves only one individual. After reading this book, you're going to have the knowledge you need to heal IBS, SIBO, microbiome dysbiosis, and leaky gut to discover whole health. It's true, randomized double-blind placebo-controlled trials are an important research method that helps us determine how interventions affect outcomes. However, they have their limitations:

- **you are unique, particularly your gut microbiome,**
- these studies cost many millions of dollars, and
- most supplements and interventions have not and never will be researched.

You'll be "loaded for bear" after you read this book. It's then you'll be armed with the knowledge needed to conduct your own N-of-1 research to find gut and whole health.

## HOW MANY PARTS DOES THE BOOK HAVE?

Here's a brief summary of what you'll learn.



**HOPE & SOLUTIONS 1.10 — Happen when ... I) You See Your Integrative Gut-Focused Whole Picture; II) You Are Diagnosed & Therapeutic Targets Identified; III) Self-Care and IV) Treatment: You Have Many Management & Treatment Tools**

## **PART I: VISION — YOU SEE YOUR INTEGRATIVE GUT-FOCUSED WHOLE PICTURE**

To begin, we'll discuss the book subtitle. You'll take a GI anatomy and physiology lesson made easy. (I promise it's easy!) We'll study gut-brain interaction, both good and bad. We'll review a case where the **GSS** is diagnosed as IBS and study the Integrative Gut-Focused Whole Picture and the *orchestra* of the Fasano Triad *conducted* by the gut microbiome. Root causation linking chronic gut and bodily symptoms, syndromes, illness, and disease will be explored.

## **PART II: DIAGNOSIS — YOU ARE DIAGNOSED & THERAPEUTIC TARGETS IDENTIFIED**

We'll first discuss tips on how to express your symptoms, followed by recognition of “*red flag*” concerning features that, when present, usually call for more extensive testing. In the following three chapters, the focus is on IBS, followed by a detailed discussion of how

diagnosis of the **GSS** and IBS can usually be made using blood, stool, and breath testing without scans and invasive testing, particularly colonoscopy. While there are many potential causes of the **GSS**, only six are common and most important. I use a football analogy and call them the **“Pick Six.”** We’ll study all of them. You’ll appreciate that most people have more than one diagnosis and multiple therapeutic targets. In conclusion, upper GI symptoms will be explored.

### **PART III: SELF-CARE — YOU HAVE MANY MANAGEMENT & TREATMENT TOOLS**

The focus is enabling you to take charge of your gut and whole health, beginning with strategies to optimize your gut microbiome and cellular mitochondrial-metabolic and immune health. You’ll discover diet is the main course to gut and whole health. I’ll introduce you to a remarkable medical food (ie, ImmunoLin/EnteraGam) that helps optimize the gut microbiome and seal leaky gut. We’ll look at essential elements of a self-care plan: exercising, avoiding prolonged sitting, optimizing weight and waist circumference, getting good sleep, managing stress, considering Apollo Wearable, finding meaning and purpose in life, and socializing.

### **PART IV: TREATMENT — YOU HAVE MANY MANAGEMENT & TREATMENT TOOLS**

You’ll first be introduced to *psychogastroenterology* (*gastropsych*) based upon exploitation of gut-brain interaction. Ways to obtain symptom relief will be discussed followed by strategies to manage the “Pick Six,” including the most common one, gut microbiome dysbiosis.

We’ll conclude with a chapter on reconsiderations if you’re not getting better (Chapter 39).



## YOU'RE IN CHARGE OF YOUR GUT & WHOLE HEALTH

It's (somewhat) apparent most mainline doctors and health care professionals aren't familiar with most of what you're about to learn. Consequently, it's increasingly important for patients to become their own advocates relative to their health.

**You're going to be able to collaborate with your doctors/HCPs from a position of knowledge. Your gut and whole health will depend upon this.**

## ARE YOU A PRIMARY CARE DOCTOR/HEALTH CARE PROFESSIONAL (HCP)?

You'll soon discover I'm advocating a paradigm shift. I propose returning the diagnosis and care of patients with **IBS, SIBO, Microbiome Dysbiosis, and Leaky Gut** (the subtitle of this book) back from gastroenterologists to primary care where they originate and belong.

**Two ornamental breaks (horizontal lines tapered at the ends) conclude each chapter and introduce content directed to primary care doctors/HCPs.**

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*First*, I'll describe the current situation as I see it. I believe most of you have personally experienced the disappointment and frustration I have as a gastroenterologist.

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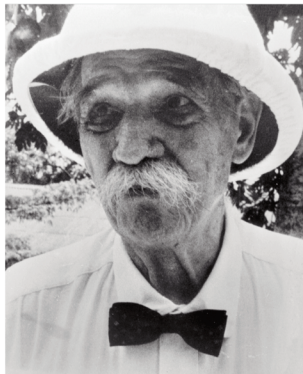
*Second*, I'll offer my ideas on how we can change things so patients finally get good diagnosis, management, and care.

## WHAT IS IBS GO TIMEE™?

I've partnered with Raf Magar, Applied Healthcare Research Management,<sup>14</sup> to teach my method for diagnosis and treatment to primary care specialists. We call this project **IBS GO TIMEE™** (diagnostic & Therapeutic Integrative Method with Education & Evaluation) . For further description, refer to my website<sup>15</sup> and the end of the book.

## CAN YOU FIND YOUR INNER DOCTOR?

Each clinic day, as part of my meditation before seeing the first patient, I recall the advice given to young doctors from Albert Schweitzer, MD, Nobel Prize winning physician.



HOPE & SOLUTIONS 1.11 — Albert Schweitzer, MD

*The witch doctor succeeds for the same reason all the rest of us succeed. Each patient carries his or her own doctor inside of him or her. They come to us not knowing that truth. We are at our best when we give the doctor who resides within each patient a chance to go to work.*

## WILL YOU READ ON AND DISCOVER YOUR DOCTOR WITHIN?

Consider me your colleague!

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1. <https://www.mountcarmelhealth.com/>
2. <https://www.ohiogastro.com/>
3. <https://ibsgutmicrobiomesolutions.com>
4. <https://capsovision.com>
5. <https://foryourgut.com/dr-salts-book>
6. <https://my.clevelandclinic.org/health/body/23064-dna-genes--chromosomes>
7. <https://theromefoundation.org/what-is-a-disorder-of-gut-brain-interaction-dgbi/>
8. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4761335/pdf/nihms712228.pdf>
9. [https://chronicpainresearch.org/about\\_copcs/](https://chronicpainresearch.org/about_copcs/)
10. <https://medicine.umich.edu/dept/chronic-pain-fatigue-research-center>
11. <https://copcscreener.com/>
12. <https://www.sciencedirect.com/science/article/pii/S0092656623000399>
13. <https://www.aaaai.org/conditions-treatments/related-conditions/mcas>
14. <https://www.ahrminc.com/>
15. <https://foryourgut.com/ibs-go-time>



**“IBS” GO TIMEE™**  
DIAGNOSTIC & THERAPEUTIC  
INTEGRATIVE METHOD WITH  
EDUCATION & EVALUATION

*I shall be telling this with a sigh  
Somewhere ages and ages hence:  
Two roads diverged in a wood, and I—  
I took the one less traveled by,  
And that has made all the difference.*

— ROBERT FROST, *THE ROAD NOT TAKEN*

Most patients and doctors/HCP's are frustrated and disappointed in diagnosis and management of the **GSS** and “IBS.”

IT'S COMPLICATED.

Much unnecessary testing is being conducted, particularly colonoscopy. Visits to the emergency department and hospitalization cost everyone a lot of money—over 30 billion dollars annually. Effective management and treatment are infrequent.

Both patients and doctors/HCPs are frustrated.

HELP IS HERE!

**It doesn't have to be complicated!**

*Enter ...*

“IBS” GO TIMEE



“IBS” GO TIMEE — diagnostic & Therapeutic Integrative Method with Education and Evaluation

I had the good fortune of meeting Raf Magar of Applied Healthcare Research Management (AHRM)<sup>1</sup> while participating in a research project with Dr Pimentel. He understood my vision and convinced me we could help both patients and doctors/HCPs collaborate to finally achieve accurate diagnosis of the **GSS** and “IBS” with noninvasive testing of blood, stool, and breath, leading to effective treatment *and* reduced health care costs.

(Recall: Quotation marks around “IBS” serve as a reminder the “Pick Six” need to be identified and managed before diagnosing IBS, a DGBI. Most patients have IBS+.

We propose a paradigm shift with “**IBS**” **GO TIMEE** and firmly believe ...

**Patients suffering with “IBS” can be—and should be—  
diagnosed and managed by primary care specialists.**

Primary care is where most patients begin their GI journey and, frankly, where diagnosis and treatment belong, not with gastroenterologists. This rare combination in HcEOR (see above illustration) is called, “dominance.” The ongoing research will guide and inform continuous quality improvement of “**IBS**” **GO TIMEE**.

Here’s a short explanatory video “**IBS**” **GO TIMEE**.<sup>2</sup>

## FRONTIERS IN GASTROENTEROLOGY

Raf and I have been invited as topic editors for a four issue series in the prestigious medical journal *Frontiers in Gastroenterology*:<sup>3</sup>

**"Irritable Bowel Syndrome" ("IBS") is Usually More Than a  
Disorder of Gut-Brain Interaction (DGBI): Diagnosis,  
Management, Pediatric Application, and Healthcare  
Economics and Outcomes Research (HcEOR).**

Our intention is to develop a forum for “real world” discussion of our mission to change the paradigm of diagnosis and management of “IBS.”

***Inaccurate and inefficient diagnosis of “IBS” underlie ineffective and costly management and treatment.***

## **It begins with informed patients.**

As my lifelong friend and medical school classmate, endocrinologist John Larrimer, MD, is fond of saying,

***It's easy if you know.***

That's you!

So ...

SPREAD THE WORD ON "IBS" GO TIMEE!

Inform your family and friends about this book. Tell your primary care specialist about both the book and video. We can be contacted through our websites.

William B. Salt II, MD  
ForYourGut.com

Raf Magar  
APPLIED HEALTHCARE RESEARCH MANAGEMENT (AHRM)  
AHRMinc.com

Together, we can do this. It's about **TIMEE!!**

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1. <https://www.ahrminc.com>
2. <https://foryourgut.com/ibs-go-time>
3. <https://www.frontiersin.org/research-topics/55347/irritable-bowel-syndrome-ibs-enteropathy-usually-more-than-a-disorder-of-gut-brain-interaction-dgbi>



# ABOUT THE AUTHOR

## INCLUDING MY PERSONAL SELF-CARE PLAN

***One day I will find the right words, and they will be simple.***

— JACK KEROUAC, *THE DHARMA BUMS*

***But I have promises to keep,***

***And miles to go before I sleep,***

***And miles to go before I sleep.***

— ROBERT FROST, STOPPING BY WOODS ON A  
SNOWY EVENING

I told you about myself in HOPE & SOLUTIONS: WHO AM I?

You can learn more on my website.<sup>1</sup>

### BOOKS

- *Irritable Bowel Syndrome & the Mind-Body Brain-Gut Connection: 8 Steps for Living a Healthy Life with a Functional Bowel Disorder or Colitis*
- *Irritable Bowel Syndrome & the MindBodySpirit Connection: 7 Steps for Living a Healthy Life with a Functional Bowel Disorder, Crohn's Disease, or Colitis* – with Neil Neimark, MD,<sup>2</sup> one of

my best students and a functional medicine specialist in Irvine, CA

- *Fibromyalgia and the MindBodySpirit Connection: 7 Steps for Living a Healthy Life with Widespread Muscular Pain and Fatigue* – with Edwin H. Season, MD
- *Still Hurting? FIND HEALTH! Discover What's Behind Your Symptoms (That Doctors Can't Explain)* – with Thomas L. Hudson, MDiv, JD
- *IBS – Irritable Bowel Syndrome: What is it? Why do I have it? How can I get well?* (ebook only)

## MY SELF-CARE PLAN

Many of my patients want to know about my personal daily self-care plan. So, here goes ...

## I FOLLOW THE PARETO (80/20) PRINCIPLE

- Approximately 80% of consequences come from 20% of causes.
- Remain compliant **most** of the time.
- You can't be perfect here.
- No one can.
- Focus on the most important 20% on most days.

**Self-care can't be passive. Planning, intention, and work are required to optimize cellular mitochondrial-metabolic dysfunction by reducing and controlling systemic chronic inflammation (SCI) and allostatic load of the stress response. Remember: You are an N-of-1.**

Hey, I've got my issues! I'm on **FIRE** with coronary artery disease, hypertension, Hashimoto's hypothyroidism, and, just recently, gout.

While I'm in the fourth quarter of life (hopefully early), I have miles to go before I sleep!

## STEP 1: EAT MAINLY PLANTS & FIBER

- Predominantly a plant-based diet
- Intermittent fasting – eating twice daily and often only once)
- Minimizing gluten and dairy casein protein – reduce potential antigenic stimulation of immune-mediated systemic chronic inflammation)
- Consuming adequate protein

## STEP 2: THE THREE BIOTICS

- Prebiotic soluble fiber (20 grams) to also manage constipation – **Sunfiber**<sup>3</sup>
- Prebiotic resistant starch (20 grams) – **Jonny's Organic Green Banana Resistant Starch**<sup>4</sup>
- Prebiotic/postbiotic (3 tablespoons) – **Himalayan Tartary Buckwheat**<sup>5</sup>
- Daily cocktail of the preceding three products combined with Tony Horton's **High Impact Plant Protein** (15 grams)<sup>6</sup> that includes 3,000 mg of **MyHMB** for muscle preservation<sup>7</sup>
- Probiotic – see STEP 6, last supplement
- Postbiotic – **Epicor**,<sup>8</sup> two 500 mg capsules

## STEP 3: FERMENTED FOODS

- Mainly kimchi, pickles, and sauerkraut

#### STEP 4: DRINK ENOUGH PURE WATER

- Enough fluids to keep urine relatively colorless
- Reverse osmosis water purifier **AquaTru**<sup>9</sup>

#### STEP 5: AVOID THESE

- Dietary additives
- Artificial sweeteners
- No more than 6 teaspoonfuls of sugar daily

#### STEP 6: NUTRIENT SUPPLEMENTS

- **Centrum Silver Multivitamin**<sup>10</sup>
- *Vitamin D<sub>3</sub>* (2,000 IU) and *vitamin K<sub>2</sub>* as **MenaQ7**<sup>11</sup> (100 mcg)
- **TruNiagen**<sup>12</sup>
- **Neuriva**<sup>13</sup>
- **MyHMB** – see STEP 2
- **Dr. Formulated Quercetin Drop Uric Acid**<sup>14</sup> – gout prevention

#### STEP 7: OMEGA-3 FAT

- Olive oil (extra virgin), fish oil supplement, salmon (wild caught), sardines, walnuts, avocado

#### STEP 8: COFFEE

- Caffeinated, 3 to 4 cups daily

## STEP 9: REGULATE GUT-BRAIN INTERACTION: REDUCE STRESS RESPONSE

- **Magtein**<sup>15</sup>
- **AlphaWave L-Theanine**<sup>16</sup>

## STEP 10: L-GLUTAMINE AND ZINC

- I don't take them since I don't have the **GSS**

## STEP 11: IMMUNOLIN/ENTERAGAM (CHAPTER 26)

- **EnteraGam**<sup>17</sup> – 5 grams daily
- **ImmunoLin**<sup>18</sup> is another option

## STEP 12: SELF-CARE

### **EXERCISE (most days)**

- 25 minutes of moderately intense exercise with stair climbing broken into two to four sessions
- One hundred air squats
- Walking the dog at least 30 minutes
- Resistance training and stretching most days – I'm a huge fan of Ellington Darden's 30:10:30 technique<sup>19</sup>
- Avoid extended sitting

### **OPTIMIZE WEIGHT & WAIST CIRCUMFERENCE**

- Height – 6'3" (used to be 6'4")
- Weight – 175 to 180 pounds (light frame)
- Waist – 33" (working on regaining high school 32" to 33")

## SLEEP

- **Magtein** and **AlphaWave L-theanine** – STEP 9
- Occasional DIPHENHYDRAMINE (product: **Benadryl**<sup>20</sup>)

## MANAGE STRESS

- Exercise deploying mindful meditation
- **Magtein** and **AlphaWave L-theanine** – STEP 9

**APOLLO WEARABLE**<sup>21</sup> – not required)

## SOCIALIZE

- Family
- Friends – particularly high school, college fraternity brothers (Delta Tau Delta), and as directed by Susan’s social agenda for us! She’s a very busy lady!

## YOUR SELF-CARE PLAN

OK, I showed you mine.

Now it’s your turn make yours!

OH, JUST ONE MORE THING ... (Chapter 27)

***Write it down!***

***And then ...***

IT’S GO TIMEE!

William B. Salt II, MD

ForYourGut.com

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Columbus, Ohio and Orlando, Florida

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# FREE READER UPDATES

ALLOW ME TO KEEP YOU INFORMED.

(Note: I'm repeating this information here at the end of the book in case you skipped or forgot this information presented at the beginning of the book.)

The content of this book is a rapidly moving target.

Ebook versions will be automatically updated. Print versions will also be updated, enabled by a technology "print on demand." Please register your email address on my website to be notified with updates and when new versions are published.

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## ILLUSTRATIONS

There are nearly 200 color figures in the book with explanatory text for each to enhance understanding.

They are necessarily in grayscale in the standard print version and ebook readers that don't display color. If you want to see the color figures, visit the book page on my website and I'll explain how to do this.

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