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— Dr. Michael Sorrell
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Medicine

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Author of *The Body Ecology Diet*

“Dr. Shekhar Challa’s book, *Probiotics For Dummies*, provides an easy-to-understand, practical framework for learning about probiotics. Focusing on overall wellness, he demystifies the digestive realm of microflora, micronutrients, supplements, and medications, giving readers a ‘go to’ resource to make informed health decisions.”

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Author of 25 books on nutrition, including *Tell Me What To Eat If I Have Acid Reflux* and *Tell Me What To Eat If I Have Irritable Bowel Syndrome*

Probiotics
FOR
DUMMIES®

**by Dr. Shekhar K. Challa, M.D.
Board-Certified Gastroenterologist**

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Dr. Challa also is the author of *Winning the Hepatitis C Battle*, which was a finalist for the Independent Book Publishers Association's Benjamin Franklin Awards, and *Spurn the Burn: Treat the Heat (Everything You Need to Know about Acid Reflux Disease)*. As a passionate advocate of education as a way to help people achieve the best quality of life, Dr. Challa has been interviewed extensively by national media, including *Seventeen* magazine, *Girl's Life*, and numerous radio and TV shows.

He has been a featured speaker for several pharmaceutical companies and has served on national and international boards, including those for West Central Osteoporosis-Proctor and Gamble, US Bank, AmSurg, and My Medical Records.com. He has been the principal investigator for several clinical trials for various pharmaceutical companies.

Dedication

To my dad, Somrajram Challa, who is going through a tough time right now with medical problems: It is from you that I learned the work ethic and dedication I bring to my career. Thank you for your loving guidance.

To my mother, Anantha Lakshmi: Thank you for the ability to cut to the heart of the matter that you bring to my life. I have never met anyone with more common sense than you have.

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Foreword

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A medical historian of the future looking back at medical progress may well highlight the discovery of antibiotics as the great medical breakthrough of the 20th century; when that same historian looks back at the 21st century he or she may well come to recognize it as the era when the bugs fought back! What I am referring to is the *microbiome revolution*: the very exciting and ever-increasing knowledge being accumulated on how certain bacteria are a normal and, indeed, essential component of the human body. Bacteria contribute to our growth, development, and health to such an extent that some have come to refer to the microbiome (the collection of bugs in our gut) as the “hidden” or “ignored” organ.

As medical science, aided by rapid advances in technology, comes to recognize the true size and diversity of this microbiome and appreciate how it participates actively in such essential bodily functions as immunity and metabolism, the possibility that approaches that change the microbiota may be useful in treating disease has emerged. Indeed, the concept of giving “good” bacteria to alleviate common complaints as well as prevent or treat illness is not a new one, but has been practiced by communities around the world for centuries.

A number of approaches can be taken to impacting the bacteria in the gut; the first, of course, is by using antibiotics. This occurs inadvertently every time we take an antibiotic by mouth to treat a chest or urinary infection, for example, when the very same antibiotic that zaps the bad bug also suppresses the good bacteria in the gut, albeit transiently. This is a blunderbuss strategy; much subtler is the approach that aims to selectively increase the numbers of certain good bacteria by either administering them directly (as a probiotic supplement) or attempting to promote their growth by giving specific foods (prebiotics) that achieve this.

While the science behind probiotics is now considerable, the consumer who goes into a store seeking help continues to face many challenges. When should I consider a probiotic? What one should I take? Does a given product contain what it claims? Does it really work? What is the best way to take it? When

attempting to answer these questions, the consumer is confronted by much hype — unsupported claims presented as sound evidence. Until regulatory processes are put in place which assist the consumer and the health care professional in choosing the right probiotic for a given problem, confusion will be inevitable. This is where this book by Dr. Challa — an eminent clinician and expert in gastrointestinal disorders and the field of probiotics — steps in by providing an accessible, critical, yet practical guide to the perplexing topic of probiotics.

In this book he provides a very helpful background to probiotics in general and then takes the reader on a journey through the many areas in medicine and health where probiotics may have a place, concluding with helpful hints on the use of probiotics in daily life. His discussion of each area of potential use of a probiotic is set clearly in the context of a specific clinical problem, the rationale for the use of a probiotic is presented, and the merits and shortcomings of probiotic therapy are discussed. What emerges is a balanced and eminently readable book that should be of value to all those who wish to learn more about this exciting topic.

Dr. Eamonn M. M. Quigley,
Professor of Medicine and Human Physiology,
Alimentary Pharmabiotic Centre,
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Introduction



Most people have experienced occasional digestive trouble — diarrhea, constipation, and so on. Between 15 million and 30 million Americans suffer from *irritable bowel syndrome* (see Chapter 2), and many millions more are affected by a range of other digestive disorders. For many years, such people either got by with no treatment at all or used prescription and over-the-counter medications that, too often, either didn't work or didn't work well enough.

Fortunately, researchers now understand much more about how your body's digestive system actually works. As it turns out, your intestines are populated by hundreds of different kinds of bacteria — some of which cause problems, but most of which are *good* bacteria, keeping the bad guys under control and performing vital functions for your immune system and overall health.

As this body of knowledge has grown, so have efforts to create products that help your body keep that critical balance of good bacteria alive and thriving. *Probiotics* are good bacteria, and they're showing up more and more frequently in foods and in dietary supplements.

About This Book

This book is intended to be a handy primer on how probiotics work, why they help keep you healthy, and how they can affect certain health problems. One chapter even covers the most recent findings on the role probiotics may play in preventing or treating diseases such as colon cancer and cardiovascular disease.

Although various societies throughout history have used probiotics in one form or another (more on this in Chapter 1), their use in the United States is relatively recent, and reliable, easy-to-understand information about probiotics can be hard to come by.

This book is designed to help fill the need for good information about probiotics and to answer basic questions about how they may benefit you.

In some cases, the research about probiotics is promising but incomplete. I explain the promise and the possibilities, but when those promises and possibilities aren't yet proven, I caution that more research is needed.

Conventions Used in This Book

For the sake of consistency and readability, I use the following conventions throughout the text:

- ✓ Technical terms appear in *italics*, with a plain-English definition or explanation nearby.
- ✓ Keywords in bulleted lists and the action part of numbered steps are in **bold**.

When this book was printed, some Web addresses may have been split into two lines of text. If that happened, rest assured that I haven't inserted any extra characters (such as hyphens) to indicate the break. So, when using one of these Web addresses, just type exactly what you see in this book as though the line break doesn't exist.

What You're Not to Read

Occasionally, you'll see sidebars — shaded boxes of text that go into detail on a particular topic. You don't have to read them if you're not interested; skipping them won't hamper your understanding the rest of the text.

You also can skip any information next to the Technical Stuff icon. I explain most technical information in simple language and reserve the Technical Stuff icon for details that are interesting but not crucial to understanding the topic.

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