Introduction

The conflict

I am not writing this book for the lean and healthy of the world, although I certainly believe they can benefit by reading it. I am writing it for those who fatten all too easily, who are drifting inexorably toward overweight, obesity, diabetes, and hypertension, or some combination of them, or who are already afflicted and are living at increased risk of heart disease, stroke, and, in fact, all chronic disease. And I'm writing it for their doctors.

This book is a work of journalism masquerading as a self-help book. It's about the ongoing conflict between the conventional thinking on the nature of a healthy diet and its failure to make us healthy, about the difference between how we have been taught to eat to prevent chronic disease and how we may have to eat to return ourselves to health. Should we be eating to reduce our risk of future disease, or should we be eating to achieve and maintain a healthy weight? Are these one and the same?

Since the 1950s the world of nutrition and chronic disease has been divided on these questions into two major factions. One is represented by the voices of authority, assuring us that they know what it means to eat healthy and that if we faithfully follow their advice, we will live longer and healthier lives. If we eat real food, perhaps mostly plants, and certainly in moderation, we will be maximizing our health. This advice goes along with the overwhelming consensus of opinion in the medical establishment that we get fat because we eat too much and exercise too little. Hence the means of prevention, treatment, or cure, whether provided by the pharmaceutical industry or by our own power of will, is to tame our appetites.

As I write this paragraph, the American Heart Association and the American College of Cardiology have just released their latest lifestyle guidelines. These health organizations recommend, as they have for decades now, that those who are fat or diabetic should restrict their calories, eat less (particularly less saturated fat), and perhaps take up regular exercise (or exercise more regularly) if they want to avoid premature death from heart disease. It all seems eminently reasonable—yet it clearly doesn't work, at least not on a population-wide basis. It likely hasn't worked for you if you're reading this book. This thinking, though, has been accepted as dogma for fifty years and is disseminated ubiquitously, even as the prevalence of obesity in the United States has increased by over 250 percent and diabetes by almost 700 percent (a number that I believe should frankly scare us all silly). So the question is, as it has always been, Is this thinking and advice simply wrong, or are we just not following it?

The other faction, the heretics, make their claims very often in the context of what the experts dismiss as fad diet books. These books offer up a very different proposition from the conventional thinking on healthy eating. While the authorities are telling us that if we eat as they propose, we will prevent or delay the eventual onset of chronic disease and live longer and healthier by doing so, these diet book doctors are claiming to be able to reverse chronic disease (including obesity) rather than prevent it. We should try their approach, these books imply, and see if it works: Does it help us achieve and maintain both health and a healthier weight? If it

does, we can reasonably assume that it will lead as well to a longer and healthier life, heresy be damned.

The authors of these books claim to have confidence that their approach works, but we don't have to accept their words on faith. (Some of their advice is contradictory, so clearly it can't all work.) But if we can take their advice and get healthier and leaner by doing so, then each of us can decide if the consensus of medical opinion is right *for us* and perhaps at all.
The authors of these books almost invariably started their careers as practicing physicians, and many still are. Almost invariably, they say they struggled with their own excess weight but freed themselves from the conventional thinking long enough to delve into the research literature and seemingly solve the problem. They had what the journalist and best-selling author Malcolm Gladwell called in a 1998 *New Yorker* article, in precisely this context, a "conversion" experience. They found a way to eat that made it easy to achieve a healthy weight and then to maintain it. Then they tried it on their patients, and it worked (or so they claimed), and they wrote books about it, and the books often became best sellers.

These books are commonly based on a single fundamental assumption, sometimes implicit, sometimes explicit: We get fat not because we eat too much but because we eat carbohydrate-rich foods and drink carbohydrate-rich beverages. The culprits, specifically, are sugars, grains, and starchy vegetables. For those who fatten easily, these carbohydrates are the reason they do. One powerful implication of these diet books is that obesity is caused *not* by eating too much but by a hormonal imbalance in the body that eating these carbohydrate-rich foods triggers. It's a very different way of thinking about why we accumulate excess fat. It demands a very different approach to prevention and treatment.

Many if not most of the popular best-selling diets of the past forty years—Atkins, keto, paleo, South Beach, Dukan, Protein Power, Sugar Busters, Whole30, Wheat Belly, and Grain Brain—are or at least include variations on this simple theme: Specific carbohydrate-rich foods create a hormonal milieu in the human body that works to trap calories as fat rather than burn them for fuel. At the very simplest level, if we want to avoid being fat or return to being relatively lean, we have to avoid these foods. They are quite literally fattening.

Physicians now commonly refer to this way of eating as low-carbohydrate, high-fat (LCHF). At its extreme, it excludes virtually all carbohydrates other than those in green leafy vegetables and the tiny proportion in meat and is technically known as ketogenic, hence "keto" for short. I'll typically refer to it as LCHF/ketogenic eating to capture both concepts. The term has the great disadvantage of failing in any way to be catchy; it trips off no tongues. But it does have the advantage of being precise and inclusive in its meaning.

When I began my journalistic investigation into the convergence of diet, obesity, and chronic disease twenty years ago, perhaps a few dozen physicians in the world were openly prescribing LCHF/ketogenic eating to their patients. Today this philosophy and dietary prescription have been embraced by thousands of physicians, if not a few tens of thousands, more every day, for very simple reasons.* They are working on the front lines of the obesity and diabetes epidemics; they have a professional stake in seeing obesity and diabetes addressed correctly and reversed, if at all possible, by healthy dietary approaches. They do not have the luxury to

treat their patients by offering them speculative, however well-accepted, hypotheses about the nature of a diet that might, according to statistical assessments, prevent heart attacks. Their patients are sick, and the goal of these physicians is to make them healthy.

Over the course of their careers, these doctors have seen their waiting rooms fill with patients who are ever more overweight, obese, and diabetic, as have doctors worldwide. Doctors told me in interviews that they went into medicine because they wanted to make people healthy and instead found themselves spending their days "managing disease," treating the symptoms of obesity and diabetes and the diseases associated with them ("comorbidities," in the medical jargon). They were becoming almost hopelessly discouraged. So they had a powerful incentive to shed their preconceptions about what *should* work, to renounce or at least question the dietary dogma of their professional societies and their peers, and look for truly effective alternative solutions.

Almost invariably, these physicians had a personal stake as well. This is a critical point, and I will return to it: To accept the possibility that the conventional thinking on diet and weight is misconceived and so fails your patients, it helps to have experienced that failure yourself. Some of these physicians had been vegetarians for decades. Some had been vegans. Many are athletes, even ultra-endurance athletes. They prided themselves on eating "healthy" and yet found they had become fatter, diabetic, or prediabetic despite doing everything "right." They were telling their patients to eat low-fat diets, mostly plants, not too much (control their portion sizes), and to exercise. They were following that advice themselves—and it wasn't working.

Their rate of success in getting obese patients to lose meaningful amounts of weight with this diet and exercise prescription—as Deborah Gordon, a family medicine physician in Ashland, Oregon, described it to me—was "close to zero." So these doctors did what we would hope any thoughtful person would do, and certainly our physicians, in these circumstances: They kept their minds open and went searching for a better approach. When they read about LCHF/ketogenic eating—now easy to do on the Internet as well as in books—they opted to self-experiment. When they discovered that this way of eating worked for them, that it lived up to its promise, they had their conversion experience. Afterward they suggested it cautiously to their patients. When it worked for them—and they learned from experience what did and did not—they became passionate. These physicians became the founding members of a grassroots revolution that is working to change how we think about obesity and diabetes in America and around the world, and therefore how we prevent and treat them.

Take Susan Wolver, for instance, an air force flight surgeon turned internal medicine practitioner in Richmond, Virginia, and an associate professor at the Virginia Commonwealth University School of Medicine. Richmond happens to be among the fattest cities in the United States; a 2012 Gallup survey ranked it second in prevalence of obesity, behind only Memphis. As Wolver described it to me, all she did, seemingly day in and day out, was "take care of chronic diseases associated with obesity—hypertension, heart disease, diabetes." Wolver diligently advised her patients to eat healthy, eat less, and exercise, but her advice had little noticeable effect. By 2013, in her then twenty-three years in medicine, only two of her patients had lost significant weight following that advice, and one had very quickly regained it.

Throughout those years, Wolver assumed, as doctors typically will, that her patients were not listening or were unwilling to make the necessary effort. “Then something happened,” she said. “I got to be middle-aged. I was following the advice I had given to all my patients, but every time I stepped on a scale, it was clear my advice no longer worked for me. I had an epiphany: ‘Maybe I’m wrong about my patients following my advice. Maybe my advice stinks.’ I started a personal journey to see what works.”

In 2012 Wolver began attending obesity and weight-loss sessions at medical conferences, hoping to learn anything plausible that she might try. At a day-long seminar hosted by the Obesity Society, she heard Eric Westman of Duke University Medical School present his clinical experience and research. Westman had done several of the earliest clinical trials comparing the kind of low-fat, portion-controlled, weight-loss diets advocated by the American Heart Association to the Atkins diet, an LCHF/ketogenic diet, restricted only in carbohydrates—in grains, in starchy vegetables like potatoes, and in sugars—and very rich in fat.

Westman reported that the Atkins diet allowed his patients to lose weight almost effortlessly and to become healthier in the process, just as Atkins had claimed. He said that it was confirmed not only by his patients’ experiences but also by his own clinical trials and a growing list of others that had demonstrated that it was indeed a healthy way to eat.

“[Westman’s] patients seemed a lot like mine,” Wolver told me, with the difference that Westman’s lost weight and kept it off while hers didn’t. In May 2013 she drove two and a half hours south to Durham, North Carolina, and spent two days at Westman’s clinic. She sat in on a day of follow-up visits and responded with “astonishment”: “I’d never seen anything like it in my life: eighteen people that day. Seventeen had lost significant weight and kept it off. That was sixteen more than I had ever seen.”

This is how unconventional or unorthodox practices spread through medicine. New drug therapies may become what physicians call “standard of care” when medical journals publish the latest clinical trial results, but the more mundane therapies (those, regrettably, that hold no promise of profiting the pharmaceutical or medical device industries or surgeons) spread initially by anecdote, observation, and clinical experience. One physician has a patient with a seemingly intractable medical condition and learns of another physician who may have a treatment that works. If it seems reasonably safe, she discusses the potential risks and benefits with her patient and gives it a try. If it works, she is likely to try it on others as well.

Two days after visiting Westman, Wolver was back in her Richmond clinic teaching her patients with obesity and diabetes to eat as Westman was teaching his. In the years since, she’s given this dietary advice to over three thousand patients. Not only do her patients lose significant weight, just as Westman’s do, but her diabetic patients get off their medications, often including insulin and blood pressure drugs. She said it’s easier now than it was in her early years to convince her patients to buy in because resistance to the LCHF/keto approach has slowly eroded. And success breeds success. Every patient who loses weight and is taken off diabetes and blood pressure medications is an advertisement to friends, neighbors, coworkers, and family that they can do the same. Now Wolver gets referrals from local physicians, including cardiologists who would have feared until recently that the diet she recommends would

increase risk of heart disease. Now they have compelling reason to believe it does the opposite. Over a third of her patients, Wolver said, are hospital employees, and they spread the word.

By prescribing to her patients what nutritional authorities would consider a fad diet, perhaps the most infamous of all fad diets, one rich in fat and saturated fat and restricted in all those carbohydrates that those authorities have insisted are heart-healthy diet foods, Wolver is making her patients healthy again. By prescribing this diet to her patients—an act that the Harvard nutritionist Jean Mayer equated in *The New York Times* in 1965 to "mass murder" and that the American Medical Association eight years later claimed to be based on "bizarre concepts of nutrition that should not be promoted to the public as if they were established scientific principles"—Wolver believes, as does Westman, that the benefits her patients are experiencing will translate to longer and healthier lives. So it spreads from physician to physician, and the unconventional slowly makes the transition to standard of care—because it works.

In the early 2000s, when I interviewed over six hundred clinicians, researchers, and public health authorities for my first book on nutrition science, *Good Calories, Bad Calories,* some of the most influential among them readily admitted to using the LCHF/ketogenic diet themselves. "It's a great way to lose weight," the renowned Stanford University endocrinologist Gerald Reaven said to me about the Atkins diet. "That's not the issue." But these physician-researchers would not prescribe it for their patients, thinking the risk of causing harm was too great. *That* was the issue. They would eat the fat-rich, ketogenic Atkins diet themselves until they lost their excess pounds; then they'd stop and eat "healthy." When they regained the weight, they would repeat the diet.**

One significant difference between the physician researchers I interviewed in the early 2000s and those in clinical practice that I interviewed for this book—more than one hundred through the summer and fall of 2017 (plus a dozen or so dietitians and nurse practitioners, a few chiropractors, health coaches, and a dentist)—is that the latter believe these diets are inherently healthy, perhaps the healthiest way for many if not most of us to eat. In that sense, they have come to think of this way of eating as therapeutic nutrition: Some of us will just have to abstain from eating carbohydrate-rich foods—specifically, sugars, starchy vegetables, and grains—if we want to be relatively lean and healthy and stay that way. Understanding that simple fact, they say, can make this way of eating eminently sustainable. They believe this partly because of their clinical experience, and partly because considerable research indeed now demonstrates that this way of eating is inherently healthy. Slowly and steadily, conventional thinking about the causes of heart disease and the dietary triggers of chronic disease is shifting.

Many physicians, like Wolver, can sound like zealots or evangelists when they talk about these diets. A phrase I heard repeatedly in my interviews for this book was that these doctors could not "unsee" what they had witnessed, both in themselves and in their patients. As more than one of these physicians told me, their discovery of a dietary means to prevent and treat obesity and diabetes—the disorders that overwhelm their practices—and one that was easy to follow, had made them excited again about practicing medicine.

Maybe evangelism is an appropriate response. A passionate doctor is not automatically a misguided one. Consider a story Wolver told me in July 2017. The previous February, she said, she received a phone call from a colleague who had just diagnosed diabetes in a twenty-four-year-old unmarried woman. This young woman's hemoglobin A1c—a measure of how well she could control her blood sugar and therefore the severity of her diabetes—was 10.1. Physicians consider levels above 6.5 to be diabetic. Over 10, according to American Diabetes Association guidelines, and the patient should be started promptly on insulin therapy.

"Do you think she'd ever get off insulin?" Wolver asked rhetorically. "Never. So my colleague said to me, 'I know you have a long waiting list, but can you see this patient? She's in my office, scared to death, crying.' I saw her the next morning. I explained to this young lady what she had to do, how she had to eat, and she started that day. I just saw her for her three-month follow-up. Her hemoglobin A1c was down to 6.1, no longer in the diabetes range. She had lost twenty-five pounds. When I told her she was no longer diabetic, she was crying. I called my colleague over, and she started crying. I was crying. I literally felt like I had cured cancer. This girl has her whole life in front of her, and it is not going to be spent on insulin, managing a chronic disease."

This was not a unique occurrence, a one-off, as skeptical critics refer to these experiences when they want to discredit them. In October 2017, more than one hundred Canadian physicians cosigned a letter to *HuffPost* publicly acknowledging that they personally follow LCHF/ketogenic regimens and that this is the eating pattern they now prescribe to their patients. "What we see in our clinics," these physicians wrote: "blood sugar values go down, blood pressure drops, chronic pain decreases or disappears, lipid profiles improve, inflammatory markers improve, energy increases, weight decreases, sleep is improved, IBS [irritable bowel syndrome] symptoms are lessened, etc. Medication is adjusted downward, or even eliminated, which reduces the side-effects for patients and the costs to society. The results we achieve with our patients are impressive and durable."

With the conventional dietary guidelines, they added, none of this happens: "Patients remain diabetic and still need medication, usually in increasing dosages over time. Don't we say that type 2 diabetes is a chronic and progressive disease? It doesn't have to be this way. It can actually be reversed or put into remission. Of the patients that we treat with a low-carb diet, most will be able to get off the majority or all of their medications."

These declarations, of course, come with critical caveats—as does Wolver's story and those of all the physicians and their conversion experiences. First, they are anecdotes, evidence only that these responses can happen when people abstain from carbohydrate-rich foods, not that they always or even almost always happen.

Second, they are incompatible with the conventional thinking on diet and health, which is why they are attacked as quackery. Not only do medical authorities, with the best of intentions, get appropriately nervous when mere MDs (let alone journalists like myself) start talking about reversing chronic diseases or putting these diseases into remission with unorthodox dietary approaches, but the way of eating that these physicians prescribe—one that allowed Wolver's young patient to lose twenty-five pounds in three months and put her diabetes into remission—

one that this book will also recommend, clashes conspicuously with our widely held beliefs about healthy eating.

The very simple assumption underlying the LCHF/ketogenic diet is that it's the carbohydrate-rich foods we eat that make us unhealthy: both fat and sick. These are relatively new additions to human diets, so it shouldn't be a surprise that removing them can improve our health. Grains, whether whole or not, and even beans and legumes—the staples of a twenty-first-century conventionally "healthy" diet prescription—are to be avoided if at all possible. While naturally lean people may be able to eat these foods and remain lean and healthy, the rest of us may not. Of fruit, only berries, avocados, and olives are acceptable. And no matter how fat we might be, this way of eating does not advise us to consciously eat less or control our portions or count our calories or attend to how much is too much (or to take up running or go to spin classes). It advises us to eat when we are hungry and then eat to satiety, with the expectation that eating to satiety will now be relatively easy to accomplish.

More radical still, this way of eating is particularly, exceedingly fat-rich and tends to consist mostly of animal products (although, as I'll discuss, it doesn't have to be). It allows, even encourages, red meat, butter, and processed meats like bacon, and therefore animal fats and saturated fat. It can include copious green leafy vegetables but is not "mostly plants," nor in any conventional way "balanced." It commits the cardinal dietary sin of essentially excluding an entire food group.

This dietary approach—LCHF/ketogenic eating—is effectively identical to what Robert Atkins began prescribing in the 1960s. It is "Atkins redux," as the low-fat diet proponent and longtime Atkins foil Dean Ornish calls it. Atkins's prescription, in fact, was little different from the diet prescribed by the Brooklyn physician Herman Taller, whose 1961 book *Calories Don't Count* sold two million copies*** and was described by a Harvard-trained nutritionist in the *Journal of the American Medical Association* as "a grave insult to the intelligent public." Taller learned of the diet from Alfred Pennington, who never wrote a book about it but used it to slim down obese executives at the DuPont Corporation in Delaware beginning in the late 1940s. Pennington published his results in medical journals, including the *New England Journal of Medicine,* and lectured about his work to a mostly positive reception at Harvard.

Pennington had learned about it from Blake Donaldson, a cardiologist in New York City who had worked in the 1920s with one of the founders of the American Heart Association and would prescribe it to his patients, almost twenty thousand of them, over the course of forty years. As a cardiologist, Donaldson may not have realized that he was rediscovering a nutritional approach to obesity that had been embraced by European medical authorities in the latter years of the nineteenth century, prompted by the publication of the first internationally best-selling diet book (technically a pamphlet), "Letter on Corpulence, Addressed to the Public," written by a London undertaker named William Banting, who reported that he lost fifty pounds by giving up starches, grains, and sugars. Banting, apparently unaware, was just repeating what the French gastronome Jean Anthelme Brillat-Savarin had written in 1825 in *The Physiology of Taste,* which would become perhaps *the* most famous book ever written about food and eating. After Brillat-Savarin concluded that grains and starches are fattening and that sugar makes it worse, his recommended diet for obesity was "more or less rigid abstinence" from those foods. This is the

very advice that remains controversial today, the foundational core of the keto fad, and the simple idea that this book will flesh out.

The name continues to keep changing and the approach shifts subtly from year to year and from diet book to diet book largely because as physicians embrace it and conclude that it works—or stumble upon this particular reality themselves, unaware of its history, or find new ways of refining the basic idea—they write yet new diet books, with their minor variations on the theme, either to spread the word as widely as they can or to cash in (depending on your level of cynicism).

Despite the long and rich pedigree of this way of eating, academic authorities and the orthodox still widely consider these LCHF/ketogenic variations, every last one of them, to border on quackery. In January 2018, just two months after the publication of the aforementioned *HuffPost* letter, the supposedly authoritative annual diet review published by *U.S. News & World Report* rated variations on these LCHF/ketogenic programs the least healthy imaginable—thirty-fifth through fortieth of the forty diets reviewed. (The publication has acted similarly in the past.) Only Eco-Atkins (a vegetable-, vegetable-oil, and fish-heavy version) and South Beach (similar) sneaked into the top twenty-five, and the paleo diet tied for thirty-second (alongside the raw food diet and just below the acid-alkaline diet). The 2019 rankings are more of the same.

To the physicians who now prescribe the LCHF/ketogenic way of eating to their patients, what their patients experience and their own eyewitness testimony, what they cannot *unsee,* are far more compelling than the fact that medical organizations and the kind of orthodox authorities enlisted by *U.S. News* to appraise diets still consider LCHF/ketogenic eating much more likely to cause long-term harm than any meaningful benefit.

For these physicians and their patients, the benefits are not only clear but also easy to quantify. Patients undeniably get healthier. The number of clinical trials supporting the benefits of these diets has risen to near one hundred, if not more, making it among the most rigorously tested dietary patterns in history. “This is not a fringe diet anymore. It’s becoming mainstream” is how Robert Oh, a sports medicine and family medicine physician who is also a U.S. Army colonel, described it to me. Oh worked in the Office of the Surgeon General of the Army on an initiative to improve the health and readiness of troops and is now chief of the Department of Family Medicine at Madigan Army Medical Center outside Tacoma, Washington. “The best thing for me as a practicing physician,” Oh said, “is that I can also share the stories of my patients with each other. I can say to one patient with type 2 diabetes, ‘Look, I’ve got other patients exactly like you, and their labs have improved, and some are no longer on any medications.’ And when other doctors see my patients, they’re going to wonder how they got so healthy and ask what they did. And now they’ll consider it for their patients. It’s out there and spreading. Even the dietitians and authorities who are just blindly opposed to it can’t stop it because it works.”

Every time the World Health Organization or the U.S. Department of Agriculture or the United Kingdom’s National Health Service or the American Heart Association proclaims in its dietary guidelines that a healthy diet must include fruits, beans, and grains (whole or not), that meats should be lean, fat should be avoided, and saturated fats should be replaced by

polyunsaturated vegetable oils, it directly conflicts with these clinical trials and, more important, what these physicians are seeing daily in their clinics and their lives. It makes the job of these physicians, as they now see it, harder, but it doesn't deter them. It makes it harder for all of us who are not naturally lean and healthy to get there,**** but it shouldn't deter us, either. From the perspective of these physicians, avoiding carbohydrates and replacing the calories with naturally occurring fats is indeed the therapeutic nutrition that their patients, and many of us, should be eating for life. As Paul Grewal, a New York City internal medicine specialist who says he has personally maintained a hundred-pound weight loss for eight years with LCHF/ketogenic eating, put it, "To be successfully reversing a disease and to be told not to do it or advise it to a patient is the height of absurdity."

Those of us engaged in this conflict, and particularly the physicians and dietitians on the front lines, believe that the advice we get from our public health, nutritional, and medical authorities is simply wrong, and that's why it fails, and that's why so many people remain fat and diabetic, often miserable and burdened with medical bills. We have reached this conclusion based on evidence that we find compelling. We believe that an injustice is being perpetrated that has to be righted. Until we get these ideas understood and accepted—and tested as well as science will allow—not enough people are going to get the advice and counsel necessary to make a meaningful and sustainable difference in their own health and to curb the obesity and diabetes epidemics that are at large.

My hope is that this book will serve both as a manifesto for this nutrition revolution (to use an overworked but still appropriate term*****) and as an instruction guide. The manifesto is necessary because meaningful change has to happen at a societal level as well as a personal one. That's why this book will discuss the mistakes made by the medical and nutritional authorities and the regrettable assumptions that we all came to embrace as a result. Ultimately we have to understand the simple chain of tragically bad science that led us into this situation. By doing so we can begin to fix what ails us.

I am presenting the instruction guide from multiple perspectives. First, I'm synthesizing all that I've learned in twenty years as an investigative journalist reporting on and questioning the conventional wisdom on diet and chronic disease. (In the midst of unprecedented epidemics of obesity and diabetes, and the complete failure of our nutritional authorities and public health institutions and organizations to curb them, shouldn't that wisdom indeed be questioned?) I was fortunate when I began this investigation to be able to shadow clinical researchers like the Harvard University Medical School physician David Ludwig, who treated children with obesity at Boston Children's Hospital with what he calls a modified carbohydrate diet, and Eric Westman, who prescribed LCHF/ketogenic eating to his adult patients with obesity at his clinic in Durham, the same practice Sue Wolver would visit a decade later. These physician researchers and these experiences reminded me that what "most experts believe" in medicine is not always true, particularly when it comes to the treatment of obesity and the prevention of chronic disease. I was also fortunate that an MIT economist suggested to me that if I was writing about fat and weight, my research process had to include experimenting with the Atkins diet, upon which he had lost forty pounds; the father of one of his colleagues, he told me, had lost two hundred. I followed his advice, and the experience has informed (or biased, depending on your perspective) all that I've done since.

The advice and opinions are also informed by the physicians and dietitians I interviewed specifically for this book; they are listed in the references section and credited wherever appropriate in the text, footnotes, or endnotes. Their experience and observations inform everything I say. Evelyne Bourdua-Roy, a leader of this movement in Canada with a medical practice in the Montreal suburbs, summed up their thinking for me with a single line that she says she repeats to her overweight, obese, diabetic, and hypertensive patients. “I can give you pills,” she says, “or I can teach you how to eat.”

I also could not help but be influenced by the now thousands of people who have reached out to me, in the years since I first wrote about this subject in 2002 for The New York Times Magazine, to relate their experiences with this way of eating and thinking. These people had struggled their whole life with obesity and either won out over it or were still engaged in the struggle.

Finally, this book, despite its purpose as an instruction guide, includes no recipes or meal plans. I believe that learning how to think about how to eat, learning to understand what makes us fat and diabetic, means implicitly learning what to cook, how to order in a restaurant, and how to shop at the supermarket. Since my expertise does not in any way include cooking, please search out recipes and the necessary culinary guidance, which are now freely available on the Web and particularly at such invaluable sources as Dietdoctor.com, Diabetes.co.uk, and Ditchthecarbs.com. These sources will link you to others and to a world of cookbooks that will do a much better job of conveying what to cook than I ever could. My goal is to help each of us shed a century of tragic preconceptions about the nature of a healthy diet, to learn to ignore the bad advice we have been given, and to replace it with a way of thinking about diets, our weight, and our health that works. After that, the eating and the cooking should be easy.

* In Canada alone, a Facebook group for women physicians on LCHF/ketogenic eating had over 3,800 members as of September 2019.

**As I'll discuss, some authorities argued that the Atkins diet and those similar should never be recommended because they are too difficult to maintain. Jean-Pierre Flatt, a University of Massachusetts biochemist whose thermodynamic hypothesis of why we get fat led a generation of researchers to advocate calorie-restricted, low-fat diets for obesity, told me several times that "Atkins outdoes all others for weight loss" but it's not suitable for weight maintenance because "people tend to slip and let carbs back in."

*** It was ghostwritten by the legendary sportswriter Roger Kahn, whose 1972 book *The Boys of Summer* is considered one of the best sports books ever written.

**** I include myself in this category, as the language suggests, because as a child I was what was then called "chubby," and my maximum weight as an adult was 240 pounds. Since I'm six foot two, that meant I had a body mass index (BMI) of 32, so I would technically have been considered obese, like everyone with a BMI over 30. I have also dieted, effectively, every day of my adult life. As I write this, I weigh approximately 210 pounds, which is, for me, a healthy weight.

*****For those who know their nutrition history, Atkins said much the same thing fifty years ago, which is why he put the word *revolution* in the title of his book, *Dr. Atkins' Diet Revolution*. I believe it was an appropriate response then, although foolhardy for a single physician like Atkins and perhaps ultimately counterproductive.