

Praise for *Defeating Dementia*

“I had always thought that there was little one could do to prevent or slow the symptoms of Alzheimer’s. However, in this amazing book, *Defeating Dementia*, Dr. Richard Furman explains in an easy to understand and detailed way that there are actually things you can be doing right now to decrease your odds of developing Alzheimer’s dementia. This book can change the way you live. It can give you a new hope and practical steps to deal with—and even help prevent—Alzheimer’s.”

Franklin Graham, president and CEO
of the Billy Graham Evangelistic Association
and founder of Samaritan’s Purse, from the foreword

“While many books have been written about individuals with Alzheimer’s, none has so seamlessly connected the disease biology, the patient experience, and the preventative science as Dr. Furman does so skillfully. Dr. Furman’s work will serve as the definitive guide on preventative measures to decrease one’s chances of developing Alzheimer’s dementia.”

Senator Bill Frist, nationally recognized heart and lung
transplant surgeon, former US Senate majority leader,
and chairman of the executive council
of Cressey and Company, from the foreword

“Dr. Furman has created a unique book for the public—one that synthesizes decades of research on the prevention and early treatment of dementia into understandable chunks and practical advice. Pairing the science with personal story provides immediacy, underscoring that this advice is not just a good idea, it’s crucial and matters now.”

Dr. Richard Ackermann, director, Hospice & Palliative
Medicine Fellowship, Mercer University School of Medicine;
Hospice physician of Mrs. Dell

Praise for *Your Cholesterol Matters*

“A wealth of knowledge for everyone interested in improving their health. Excellent guidelines with clear understanding.”

Tim Edmisten, MD, FACS, past president,
North Carolina American College of Surgeons

Praise for *Prescription for Life*

“Dr. Furman lays out a thorough review of the medical literature, written in layman’s terms in such a way that is easily understood. Read it. Apply it. If you are like the majority of Americans, you will become 7–12 years younger physiologically than you presently are chronologically.”

Bill Frist, nationally recognized heart and lung transplant surgeon, former US Senate majority leader, and chairman of the executive council of Cressey and Company

“While many respond negatively to the thought of exercising, dieting, and changing their lifestyle, Dr. Furman has managed to take what is threatening and make it thrilling. When you finish this read, you will actually be excited about the possibility of a longer, healthier life.”

Dr. David Jeremiah, from the foreword

WINNING YOUR BLOOD SUGAR BATTLE

**How to Prevent and
Control Type 2 Diabetes**

RICHARD FURMAN, MD, FACS



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To my sweet wife, Harriet.

*There are many virtuous and capable women in the world,
but you surpass them all!*

PROVERBS 31:29 (NLT)

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Introduction

The woman looked distraught as she approached me, and I could detect a tear forming at the edge of each eye. I waited for her to speak.

She slipped a tissue out of her pocket and lightly dabbed her eyes. “I just saw my doctor, and he told me I have diabetes. Type 2.”

I looked at her without showing emotion. She was a nurse, and I didn’t think being told she had diabetes was enough to make her cry. But then she broke down and let the tears flow.

“The bad part,” she said, “the part I don’t understand, is that he said being told I have diabetes is just like being told I’ve had my first heart attack.”

Now I understood why she was so emotional. Being told she had diabetes was bad enough. Learning it was the equivalent of having a heart attack was almost more than she could take.

“I’m not sure where to begin doing something about it,” she said. “I’m a nurse, but I’ve never really studied diabetes. I’ve seen a lot of the results of heart attacks, though.”

She had no idea what relationship diabetes had to the health of her heart, but I knew what she was up against. I also knew she could make lifestyle changes to reduce the medication she would have to take, or even to get her off medication completely.

The complications from diabetes are the seventh leading cause of death in America, yet this book is about hope. Combating diabetes takes much more than medicine, and with lifestyle changes, you can not only treat diabetes; you can prevent it.

Let's take this journey together.

PART 1



UNDERSTANDING DIABETES

1. The Diabetes Problem

The 2017 National Diabetes Statistics Report states that 30.3 million adults in the United States have been diagnosed with diabetes. That's over 12 percent of all adults, and most of them were no doubt surprised to learn they had it.

Approximately 84 million American adults have what's called prediabetes, which means their blood sugar is above the normal range but not high enough to be medically diagnosed as diabetes. Yet 90 percent of them don't know they have it.

Either way, one out of three adults has something going on in their body that can lead to an extremely serious disease.

Both prediabetes and diabetes place you at a greater risk of having heart attacks and strokes. The information about prediabetes in this book applies to diabetes because the ongoing process in your body is the same with both. Advancing from being prediabetic to diabetic is the same process as progressing further with diabetes. So study the reports concerning prediabetes as intensely as you study the ones

that cover diabetes. It's all the same disease, just in different degrees.

The more you know from a medical standpoint, the easier it will be for you to change your lifestyle. Once you realize what certain foods lead to, you'll want to change your eating habits to avoid them. Once you know the statistics concerning the effectiveness of exercise in defeating diabetes, you'll want to get off that couch. And when you see the reports concerning excess weight, you'll want to change what you eat now so you can lose that excess weight by eating foods that fill you up, yet have the fewest calories.

This book reviews the best medical research available on diabetes. As you read it, you'll realize that if you don't attack the issues with your blood sugar, you'll physiologically grow older than your chronological age. Not only will your years be difficult as you age, but you'll shorten your life span. The more you know medically, the more motivation you'll have to change your focus from treating only your blood sugar numbers to beating the problems that go hand in hand with being diabetic.

Types of Diabetes

The three types of diabetes are gestational, type 1, and type 2.

Gestational diabetes develops in pregnant women who have never had diabetes before but have developed an elevated blood glucose level during pregnancy. It affects up to 9 percent of pregnant women. It usually resolves after childbirth, but it increases the risk of developing type 2 diabetes after pregnancy. Such patients are screened and followed.

Type 1 is often hereditary, unpreventable, and shows up many times in children and young adults. Only about 5 percent of all diabetics have type 1. In type 1 the immune system attacks the islet cells in the pancreas that produce insulin. Once those cells are destroyed, the pancreas doesn't make insulin. The individual with a type 1 diagnosis will need to be given insulin.

Type 2 diabetics have the islet cells in their pancreas, but cells that receive glucose build up so much resistance to the insulin that the pancreas is called on to produce an extra amount to try to get the glucose out of the bloodstream and into the resistant cells. I picture this process as a key that has trouble fitting into a stubborn lock. After a while, the islet cells can't produce enough insulin to overcome the faulty, swollen locks in the doors of the receiver body cells to get the glucose out of the blood and into the cells. When the process first begins, where the body cells are building up a resistance against the insulin, there may be no symptoms. That's why the individual doesn't realize they're in the process of becoming diabetic.

Type 2 diabetes frequently results from being overweight and sedentary and eating improperly. The question is, Where do you begin the battle? As I indicated before, whether you're prediabetic or fully diabetic, you can definitely have hope for the prevention or reversal of the disease.

There is a marked difference between treating and curing diabetes. Most people told they have diabetes immediately begin thinking about what medicine they're going to have to take the rest of their lives. Instead they should be thinking about lifestyle changes that might reverse the diagnosis or at least reduce the medication they will have to take otherwise. Diabetes is curable, but not with medication.

The only possibility for real cure comes through eating properly, exercising, and reaching your ideal weight. This book focuses on the details of developing the proper lifestyle to fight diabetes with all your might.

How Your Body Processes Sugar

Everyone knows if you have diabetes you have a problem with how your body handles sugar. How does that process work? The nutrient that energizes the cells in our bodies is glucose. Most of our foods are broken down into glucose, which is transported through the blood. Both fat and protein will eventually be broken down into glucose. Glucose is the driving force for our energy. Our cells need glucose for energy, but the door to each cell doesn't remain open for glucose to simply float into that cell whenever it's needed.

I like to think of the process as if there were a small lock on the door of each cell and a key is necessary to unlock that door to allow the glucose to enter. Our body has a way of keeping track of how much glucose is floating around in the blood, and when it increases, a sensor goes off in our pancreas, which begins to secrete insulin. Think of insulin as that key working its way into that lock on the door of a cell to unlock it and let some glucose inside.

Most people think diabetes is caused by too much sugar in the blood, which forces the pancreas to produce more insulin than it normally should. That's half right. I'm reminded of a sign I saw in front of a little country church. It read, "Remember: a half-truth is still a whole lie." It's true that diabetes means you have too much glucose in your blood, which then requires your body to produce more than the normal

amount of insulin to try to get the glucose into your cells for nutrition. But that's only half the truth.

The other side of the equation is the *why* question. Why does your body need more than the normal amount of insulin to get the sugar into the cells? If X amount of glucose is in the blood, then the switch in your body tells the pancreas to produce X amount of insulin, which is the exact amount it takes to get the X amount of glucose into the cells. But with diabetes, sugar can't enter the cells as easily as it should. That leaves excess sugar in the bloodstream, and that extra amount signals the pancreas to produce even more insulin. The initial problem is not extra glucose, but that the glucose is having difficulty getting into the cells. Something is causing that keyhole to swell, which prevents the insulin key from working properly.

As the process advances from prediabetes to full-blown diabetes, the pancreas can't keep up with the amount of insulin the body is telling it to produce, and medication must be given to control the excess glucose.

Understanding Your Blood Sugar Levels

A blood test checking your blood sugar level is important, because you and your doctor need to know some basic numbers to evaluate your condition. A normal fasting glucose is below 100mg per deciliter. Prediabetes is from 100 to 125mg; diabetes is 126 and above. Fasting glucose tests are done after a fast of eight hours. An oral glucose tolerance test is when you're given a particular sweetened drink and your glucose is tested two hours later. A diagnosis of diabetes is made if your results are 200 mg/dl or higher.

The hemoglobin A1c test measures average glucose levels over a two- to three-month period. The A1c measures what percentage of your hemoglobin—a protein in your red blood cells that carries oxygen—is coated with sugar. The worse your glucose control is, the more sugar is coated on the hemoglobin. Diabetes is diagnosed at an A1c of 6.5 percent or greater. Someone who has just been diagnosed as diabetic will likely realize they had prediabetes long before they had diabetes. As I mentioned before, most people who develop type 2 diabetes have had what is called “prediabetes,” where the glucose level is above normal but not to the diabetic diagnostic number.

If someone realizes they’re prediabetic, they can begin lifestyle changes that most likely will prevent their reaching a diabetic diagnosis. The problem is *prediabetes has no clear symptoms*, so most prediabetics have no idea something bad is going on in their body.

The information you’re about to read applies to both the prediabetic and the diabetic, because the disease is a progression from being able to normally control your blood sugar all the way to extreme associated problems.