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Prediabetes

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- Model a healthy lifestyle for your children

Alan L. Rubin, MD

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by Alan L. Rubin, MD



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About the Author

Alan L. Rubin, M.D., is one of the nation's foremost experts on diabetes. He is a professional member of the American Diabetes Association and the Endocrine Society and has been in private practice specializing in diabetes and thyroid disease for over 30 years. Dr. Rubin was Assistant Clinical Professor of Medicine at University of California Medical Center in San Francisco for 20 years. He has spoken about diabetes to professional medical audiences and non-medical audiences around the world. He has been a consultant to many pharmaceutical companies and companies that make diabetes products.

Dr. Rubin was one of the first specialists in his field to recognize the significance of patient self-testing of blood glucose, the major advance in diabetes care since the advent of insulin. As a result, he has been on numerous radio and television programs, talking about the cause, the prevention, and the treatment of diabetes and its complications.

Since publishing *Diabetes For Dummies*, Dr. Rubin has had four other bestselling *For Dummies* books — *Diabetes Cookbook For Dummies*, *Thyroid For Dummies*, *High Blood Pressure For Dummies*, and *Type 1 Diabetes For Dummies* — all published by Wiley Publishing. These four books cover the medical problems of 100 million Americans.

Dedication

This book is dedicated to my new granddaughter, Rachel Natania Ross, who was born almost exactly when the book was completed. It is my fervent hope that she will never need the information in it, but if so, that it contains all she needs to know to live a long, healthy, active life.

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Introduction

We're going to have some fun together. "What," you say, "is funny about a discussion of a problem like prediabetes?" On the surface, maybe nothing. But a spoonful of humor makes the medicine go down. If you ask women what they want in a man, a majority will say "a sense of humor" (among other things). I believe that's what you want in a book as well. I believe you will find what I have to tell you much more palatable if I add a dash of fun. If it's too dry, you won't be able to swallow it. So prepare to smile.

Why Do We Need This Book?

The simple answer is that my wife wants to redo the bathroom. But, as you can imagine, the answer is much more complex. The prefix *pre* means "before," as in *prefix*, "before the word." *Prediabetes* is that time when you aren't quite normal but you don't quite have diabetes. I define it clearly in Chapter 1. Prediabetes is not usually associated with all the bad complications of diabetes, which I discuss in Chapters 12, 13, and 14, but it may be associated with some heart problems, which I discuss in Chapter 13.

And prediabetes is not only the stage before diabetes. It may also be the stage before high blood pressure (*prehypertension*) and the stage before high cholesterol (*precholesterol*: Oh, sorry, I got carried away — there is no such term). All the abnormalities that lead to prediabetes (that can go on to diabetes) are also to blame for the development of prehypertension (that can go on to high blood pressure) and mildly elevated cholesterol (that can go on to hypercholesterolemia).

So if I help you to reverse prediabetes, I am also helping you to reverse the other two conditions. You are basically getting three books for the price of one. What a deal!

And you *can* reverse prediabetes. If there is one thing that I want to make clear, you are not doomed to develop diabetes just because you have prediabetes. You can return to your normal state of perfection. But you have to read what I have written, and you have to follow my recommendations. If you reverse prediabetes, you will probably reverse prehypertension and mildly elevated cholesterol as well. Chapters 15 through 20 provide everything you need to know to do this.

About This Book

This book is an excellent resource for what you need to know about prediabetes — and a lot about diabetes as well. (Everything you need to know about diabetes can be found in an excellent book called *Diabetes For Dummies*, written by an author well-known to me and published by Wiley.)

You don't have to read this book from start to finish (but it wouldn't hurt). You can pick up the book and start reading anywhere you want. If you want to know what prediabetes is, start with Chapter 1. If you want to know what factors lead to prediabetes, Part II provides the answers. Getting a diagnosis is taken up in Part III, while the potential complications should you develop diabetes are discussed in Part IV. Part V tells you how to avoid or reverse prediabetes.

So if you are some kind of genius and already know what prediabetes is, how to diagnose it, and that you have it, go ahead and skip to Part V. But be forewarned! I will ask you to do things that may be a lot harder than tenth-grade math. Unlike tenth-grade math, however, what I ask you to do can save and prolong your life. Just avoid getting hit by a car.

Conventions Used in This Book

The sugar in your blood is called *glucose*, and too-high glucose leads to many of the complications of diabetes. But the white sugar you eat is not glucose; it's sucrose. And many other sugars exist, like fructose, maltose, and galactose. So I don't use just the word *sugar* in this book; I call the particular sugar by its proper name.

When I mention a level of blood sugar (oops, glucose), it will be shown in units called *milligrams per deciliter* (mg/dl). I don't mean to confuse you, but the rest of the world uses the International System of units called, in this case, *millimoles per liter* (mmol/L). You can convert mg/dl to mmol/L as you cross the border of the United States into Canada simply by dividing the mg/dl by 18. For example, a blood glucose of 100 mg/dl is 5.5 mmol/L.

Two major types of diabetes exist: *type 1* diabetes mellitus and *type 2* diabetes mellitus. I refer to them as *type 1* and *type 2* diabetes in this book.

I discuss calories frequently in this book because how many of them you eat affects your weight, which in turn affects your susceptibility to prediabetes and diabetes. When I talk about a specific number of calories that you consume, I use the proper term, which is *kilocalorie*. A *calorie* is actually a much smaller unit of energy than a kilocalorie. Food manufacturers always use the abbreviated *calorie*, which is confusing and not technically correct.

Finally, in Chapter 16, I include a handful of recipes to try. If you're a vegetarian, look for the tomato next to the recipe name that indicates the recipe does not contain meat or fish.

What You Don't Have to Read

You don't have to read anything in this book if you don't want to, but that would be a waste of my time and your money. Instead, if you really don't like complicated scientific explanations, skip the material in the sidebars that are shaded in grey. You will still understand everything else, but you may not be able to answer a trivia question someday. The sidebars are there for the people who demand to know why.

Foolish Assumptions

I assume that your mind is a blank when it comes to prediabetes and diabetes. Therefore, you won't suddenly come up against a term that you have never seen before without finding an immediate definition of that term. On the other hand, if you already know something about the subject, you can expect to find much greater detail. Throughout the book, the most important points are clearly marked using tools such as icons (which I explain in a moment).

How This Book Is Organized

This book has six parts, and you don't have to start at Part I. Each part is self-contained. In fact, each chapter is self-contained, so if you see a chapter title that really excites you like "The Testing Spectrum: Having the Essential Tests and Interpreting Results," feel free to jump right in there. Here is a brief discussion of what you can find in each part of this book.

Part I: Confronting the Prediabetes Epidemic

This introductory part gives you a foundation of understanding as to what prediabetes is all about. I start with a discussion of how prediabetes originates. From there, I move on to talk about when you should suspect that you have developed prediabetes. What are the elements of your family history, your personal history, and your current lifestyle that suggest this diagnosis?

Moving right along, I trace the factors that convert prediabetes to diabetes. Then I offer a general discussion about stopping this conversion before it happens.

Part II: Food and Other Factors: Battling an Unhealthy Lifestyle

What you learn in these chapters should make it clear to you that prediabetes, as well as type 2 diabetes, is promoted by an unhealthy lifestyle, which means both conditions can be reversed by adopting a healthy lifestyle.

The first element of your lifestyle to consider is the food you eat. Some foods are good for you, and others aren't. You constantly make choices, and I want to help you make the right ones. From your own kitchen to the homes of your friends to the restaurants you frequent, you need to be aware of what to choose.

Next you want to deal with your weight. I am not interested in turning you into a fashion model, just getting your weight to the level where it does not hurt your health. Of course, should you decide to turn into a fashion model, I wouldn't mind a signed photograph.

The next aspect of your lifestyle that we must deal with is your exercise program. What exercise program, you say? If you don't exercise, that has got to change. You want to feel all those good chemicals that come from your brain when you exercise. It's a natural, inexpensive, and very healthful high.

Finally, you want to learn how to deal with stress so it doesn't damage your health, and you want to eliminate bad habits such as any interaction with tobacco of any kind, as well as excessive drinking. I help you to do those things to the best of my ability, but you have to carry them out (so they don't carry you out).

Part III: Getting a Diagnosis

First I want to help you recognize what is going wrong. Diabetes, and even more so prediabetes, is like a stealth bomber. You may not see it coming before a lot of damage is done.

Many tests can be valuable both to make the diagnosis of prediabetes and to see how far along you are. I explain these tests in detail and tell you when to get them and how to interpret them. You may be able to teach your doctor a thing or two before you finish this part.

Special issues apply to children and the elderly when it comes to diagnosing prediabetes. The final chapter in this part discusses these issues. We are witnessing an epidemic of type 2 diabetes in children, which means there is an even greater epidemic of prediabetes in children. Is that excess weight just baby fat that will disappear when your child has a growth spurt? Or is it necessary to do something right now to help your child get healthy? You find out here.

Part IV: The Dangers of Moving toward Diabetes

Diabetes, untreated, is not a benign condition. People with diabetes are the largest component of blind people and people with kidney failure in the United States. This part clarifies the complications, both major and minor, that are associated with uncontrolled diabetes.

First there are the short-term complications that can come and go in a few days or even hours, such as low blood glucose (*hypoglycemia*) and very high blood glucose (*hyperglycemia*). These conditions have a very definite effect on your quality of life and need to be prevented.

Next are the long-term complications that take ten or more years of diabetes to develop but can be devastating. Blindness, kidney failure, nerve disease, and heart disease are the things to fear in this regard. But you are never going to have any of these complications because you are going to reverse your prediabetes so it never gets to diabetes!

A special category of long-term complications are sexual complications and the complications of pregnancy. These situations warrant their own chapter. (It's not X-rated, so feel free to read it even when the kids are around.)

Part V: Avoiding or Reversing Prediabetes

Up to now you have been learning. Now you will be doing, with my help. First, in Chapter 15, we go to the supermarket together and make good choices. Then we cook together and enjoy the healthful and delicious food we make. In Chapter 16, I provide you with a bunch of recipes that you can enjoy — recipes that feature inexpensive ingredients so anyone can make them.

Next I take up exercise. You may find some surprises in Chapter 17, but you have to read it to find them out. I am not giving you any clues here.

Can medications help to reverse prediabetes? You find out in Chapter 18, and you also learn whether any vitamins or supplements may make a difference.

Surgery for weight loss may seem like a drastic solution, but it may not be as drastic as you think. When all else fails, this option is a reasonable and almost guaranteed answer. You find out how surgery may help, its pros and cons, and what to expect if you have weight loss surgery in Chapter 19.

To put all your new knowledge together, I provide Chapter 20, which features a complete plan for a three-month health makeover. Sometimes you need structure in order to succeed. This chapter tells you what to eat, what exercise to do, and everything else you need to know.

Part VI: The Part of Tens

No book *For Dummies* is complete without this part. You can read ten myths about prediabetes, ten staples to keep in your kitchen, and ten things to teach your child with prediabetes.

Icons Used in This Book



The icons alert you to information you must know, information you should know, and information you may find interesting but can live without.

I use this icon when I relate a story from my personal experience or from the experience of one of my patients.



This icon points out when you should see your doctor (for example, if your blood glucose level is too high or you need a particular test done).



When you see this icon, it means the information is essential and you should be aware of it.



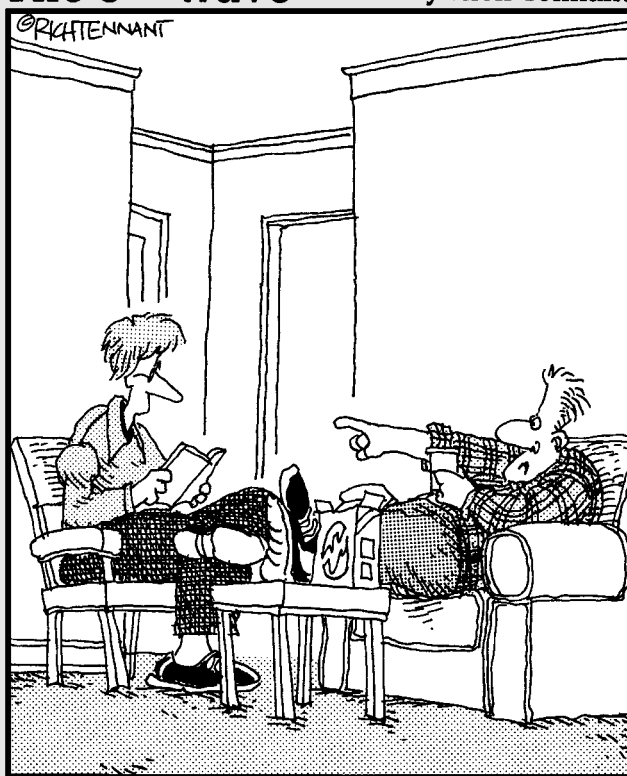
This icon marks important information that can save you time and energy.

Part I

Confronting the Prediabetes Epidemic

The 5th Wave

By Rich Tennant



"C'mon, Darryl! Someone with prediabetes shouldn't be lying around all day. Whereas someone with no life, like myself, has a very good reason."

In this part . . .

Prediabetes is a relatively new concept. In this part I explain its meaning and who is affected. I tell you how to recognize that you or a loved one may have prediabetes. I discuss the transition from prediabetes to diabetes. And I open the discussion of how to stop prediabetes from becoming diabetes and how to return your metabolism to its normal state.