

Introduction

If you're like most people, you struggle to control your weight. You may not realize that you're probably attempting to control your blood sugar as well.

In fact, your silent blood-sugar problems are a major reason why you're overweight.

This news may surprise and even shock you, but being overweight and having blood-sugar problems tend to go hand in hand. The reason is that up-and-down blood-sugar swings throughout the day increase your hunger jags, snacking, and overeating. When you eat too much and pack on the pounds, you set the stage for developing prediabetes, obesity, and full-blown diabetes.

That's just the beginning. Once you start down the path toward prediabetes and overweight, you face an increased risk of suffering from many other painful, debilitating, and life-threatening health problems. It's not a pretty picture.

The sad fact is that both prediabetes and overweight are out-of-control modern epidemics. Two-thirds of North Americans are now overweight, and almost as many people have some early signs of prediabetes. Although overweight and prediabetes don't always overlap, they do much of the time.

If you happen to be thin, don't count your blessings just yet. That's because one-fourth of thin people are also prediabetic.

What's the cause? The dual afflictions of prediabetes and overweight result from slamming your body too many times with unhealthy foods. The foods you've eaten and thought were safe have created your health problems.

Are we trying to scare you? Yes, we want to scare you into saving your life.

As bad as all this might sound, you can do plenty to change the course of your health. Prediabetes may be the prelude to developing diabetes mellitus, but you can reverse it with careful, conscientious eating habits. Even if you have been diagnosed with diabetes, you can still reduce its impact and the severity of its symptoms.

Are You Prediabetic and Don't Know It?

When doctors and health experts talk about the health problems associated with prediabetes, diabetes, and overweight, people often have trouble imagining the horrible consequences; for example, diabetes can result in blindness, nerve damage, kidney failure, and amputation. So let's take a different approach and consider how you look and feel today. Some of the early symptoms of prediabetes are so common that many people assume they're normal. These signs of prediabetes fall into four groupings.

1. Mind, Mood, and Energy Clues

Do you

- Feel tired after eating?
- Feel tired or not have much energy in general?
- Have difficulty concentrating after eating?
- Experience fuzzy thinking a lot of the time?
- Have bad moods when you don't eat on time?

2. Physical Clues

Do you

- Have love handles?

- Have a potbelly, even a small one?
- Have a forty-inch or larger waist (men)?
- Have a thirty-five-inch or larger waist (women)?
- Experience frequent heartburn or acid reflux or take meds for symptom control?
- Have trouble maintaining an erection without medication (men only)?
- Engage in little or no physical activity on most days?
- Have facial hair, plus difficulty in conceiving (women only)?
- Need to urinate frequently?
- Feel that your mouth is often dry?

3. Medical Clues

Do you

- Have elevated fasting glucose (above 90 mg/dl)?
- Have elevated fasting insulin (above 10 mcIU/ml)?
- Have high total cholesterol or LDL cholesterol?
- Have high triglyceride levels?
- Have high C-reactive protein (CRP) levels?
- Take a drug to reduce your blood-sugar levels?
- Know whether you were a low-birth-weight baby (less than six pounds)?
- Know whether you were a high-birth-weight baby (more than ten pounds)?
- Remember whether you grew up exposed to secondhand smoke?

4. Eating Clues

Do you

- Skip breakfast or have only coffee and something sweet?
- Tend to pig out while eating?
- Often feel as if you can't stop eating?
- Snack frequently, such as while watching television?
- Eat out of boredom?

- Have food cravings, especially for sweet or carb-rich foods?
- Eat to get more energy?
- Have sugary soft drinks most days?
- Eat fast foods (e.g., McDonald's) at least once a week?
- Drink beer or hard liquor (spirits) at least once a week?

If you see yourself in any of these examples, it's time to change your habits before you develop more serious health problems.

Are You in Denial about Your Weight?

Being overweight is the number-one risk factor for developing prediabetes and diabetes. You may feel smug thinking that your weight is normal, but chances are you're wrong.

Denial is a huge part of the growing problem of prediabetes and overweight. Most people think they look better than they do, assume they weigh less than they actually do, and believe that love handles or a pot-belly aren't a big deal.

In one survey, nine out of ten Americans thought that most other people were overweight, but only about half of them acknowledged that they themselves had weight problems. Another study found that a majority of people didn't think being overweight was a serious issue except for extreme obesity, such as when someone weighed more than four hundred pounds.

Denial takes other forms, too. Wearing large-size clothes, such as baggy jeans, and sweatshirts, covers up embarrassing, overweight bodies. You can buy mirrors that make you look thinner, and clothing stores routinely use these mirrors to flatter their customers. Other people squeeze their butts into small sizes just to say that they fit, although the clothes practically burst at the seams. In 2006, Hewlett-Packard introduced a digital camera with three settings to make people look thinner than they really are. "You'll trim down to a new you, instantly," said one advertisement.

People keep deceiving themselves, and they rationalize each extra helping of food, their nonstop snacking, their tight-fitting clothes, and how their bellies ache after they pig out. The more people snack and

overeater, the more food they want, and the worse their blood sugar and weight become.

The Numbers Add Up to a Huge, Growing Health-Care Crisis

Maybe you need to hear a few alarming statistics to be convinced. The following numbers sent a chill down our spines, and they should be just as scary for you.

- *Overweight.* Two out of every three American adults are now overweight. One of every two overweight Americans is heavy enough (more than thirty pounds over his or her ideal weight) to be considered obese. If you're obese, your risk of developing diabetes is more than eighty times greater than that for someone of normal weight. Men fare worse than women—four out of five American men are overweight or obese. That means only one American man in five is thin today. If these trends continue, according to an article in the *Annals of Internal Medicine*, nine out of ten men and seven of every ten women will become overweight or obese.
- *Diabetes.* The percentage of Americans with diabetes has doubled since the mid-1970s and jumped by more than 30 percent during the 1990s. People then in their thirties—the first full-fledged fast-food generation—experienced a 70 percent increase in diabetes during the 1990s. Twenty-one million American adults now have full-blown diabetes, and researchers predict that the prevalence of diabetes will grow to 40 million Americans in the next twenty years.
- *Prediabetes.* The estimated number of people with prediabetes currently ranges from 40 to 100 million, depending on the study you happen to cite. One study predicted that half of all Americans would be prediabetic in just a few years. Being overweight, prediabetic, or diabetic increases your risk of dying of any cause at a younger age.

These statistics are even more disturbing when you consider that diabetes used to be a relatively rare disease, affecting mostly overweight elderly people. But as individuals become overweight at younger ages, they are more likely to develop diabetes earlier in life.

The Growth of Generation XXL

Researchers and news reports frequently describe the alarming growth of overweight, obesity, and diabetes in children. When we were kids in the 1950s and 1960s, overweight children were uncommon. Today, overweight children are quickly becoming the norm, with about one in every three American children either overweight or obese.

Being overweight or obese in childhood increases a person's risk of developing allergies, asthma, high blood pressure, heart disease, and fatty liver. In fact, fatty liver, in which fat deposits on the liver impair its function and blood-sugar regulation, has become the most common physical abnormality in children and adolescents.

Researchers have projected that one of every three people born since the year 2000 will eventually develop diabetes. Already, an estimated forty thousand American adolescents have type 2 diabetes; a generation ago this disease that was virtually unheard of in children. The latest statistics indicate that almost 3 million adolescents have prediabetes, which sharply increases their risk of developing heart disease. Because being overweight and prediabetic accelerate the aging process, these children probably won't live as long as their parents do.

What accounts for this frightening increase in prediabetes and diabetes in children and teenagers? They have grown up eating large quantities of junk foods, such as fast foods and microwave convenience foods. People who dine at fast-food restaurants two or more times a week are far more likely to gain weight and develop prediabetes, compared with those who rarely eat fast foods.

On a typical day, about one-third of U.S. children eat at fast-food restaurants. Fast-food restaurants form clusters around schools, and, unfortunately, school cafeterias and vending machines aren't much better, nutritionally. In perhaps the greatest irony of all, fast-food restaurants are common in children's hospitals and other medical centers with extensive pediatric programs. In a survey of two hundred such hospitals, fifty-nine had fast-food restaurants, such as McDonald's, located on site.

Global Problems

Americans now have the dubious honor of being the fattest people in the world; however, the citizens of most other countries are quickly catching up. Worldwide, overweight and obese people now outnumber the undernourished and starving. The World Health Organization has estimated that more than 1.7 billion adults are overweight or obese, compared with 600 million who are undernourished.

In England, 39 percent of the population tip the scales as overweight, with 21 percent obese. The numbers are rising, and projections suggest that one-third of British men will be obese by 2010. In France, regardless of what you've heard about French women not getting fat, weight problems are common. Forty-two percent of French citizens are overweight or obese, and the percent goes up to 51 percent in some parts of the country.

Since the mid-1980s, the incidence of obesity has tripled in developing nations. As people gain weight, their risk of developing prediabetes and diabetes shoots up because these conditions result from the same dietary patterns. In every case, the dramatic increase in overweight and diabetes follows the adoption of Western dietary habits, such as overeating cheap foods that are loaded with calories from sugars, sugarlike carbs, and trans fats. (Sugarlike carbohydrates mean refined carbs, usually grains, which are digested almost as quickly as sugars, leading to rapid jumps in blood-sugar and insulin levels.)

It may sound funny, but in Australia officials have recommended a full-scale effort to strengthen toilet seats to accommodate growing numbers of overweight people. Back in the United States, it's become increasingly difficult to take meaningful medical X-rays because too much body fat obscures the images. More than 120,000 U.S. citizens annually now undergo stomach stapling, gastric bypass, or other surgeries to lose weight—and, as a result, they risk developing multiple vitamin and mineral deficiencies.

The worldwide obesity epidemic drives the diabetes epidemic. In 2006, an estimated 246 million people worldwide had diabetes, a phenomenal increase from only 30 million just twenty years ago. That number is expected to climb to 420 million in less than twenty years. We

believe that two to three times this many people already have prediabetes, creating the stepping-stone to a catastrophic health disaster.

If You Have Been Diagnosed

If you have already been diagnosed with prediabetes, diabetes, or obesity, you may have felt, at least at times, helpless and trapped in a body you can't do much about. You may believe that life dealt you a bad hand or may wonder why this has happened to you.

These are normal feelings, and they're similar to how people feel after being diagnosed with cancer or advanced heart disease. You may also be frustrated because you know how difficult it is to change your eating habits, to lose weight, and to get your blood sugar under control. Worse, sometimes the side effects of medications can leave you feeling even sicker.

It's not uncommon to experience a sense of defeat when you receive a serious medical diagnosis. Depressed and not knowing where to turn, many people with prediabetes or diabetes simply give up. Others react with defiance, with the attitude "No one is going to tell me how to eat!" But these responses do not realistically deal with the long-term consequences of ignoring blood-sugar problems.

In our experience, many people have been let down by the health-care system. That's because the diagnosis of prediabetes often falls through the cracks. It's all too common for people to receive a diagnosis, only to be given little, if any, meaningful nutritional advice, and the advice that is dispensed is, unfortunately, often antiquated and ignores the best research.

You Can Reverse Prediabetes

The good news is that you can reverse your health problems, improve your blood sugar, lose weight, and feel more energized than you have in years.

The program we describe in *Stop Prediabetes Now* focuses on eating habits, nutritional supplements, and light physical activity. We clearly explain exactly what to do to straighten out your eating habits. Taking this approach is two to three times more effective than any medical

treatment in preventing the progression of prediabetes and diabetes. The research and the experience of other doctors clearly back us up.

We're not going to ask you to "go on a diet." That's because most people soon go off their diets and return to the habits that made them sick in the first place. Nor will we promise that you'll look like a runway model or a hunk with six-pack abs. That's simply unrealistic.

Instead, we ask you to work with us to develop a new lifelong style of eating for better health. When you adopt new and better eating habits, you will likely see benefits in how you feel within a day or two, usually with impressive changes by the end of the first week, followed by many additional improvements after weeks and months. Instead of complaining about side effects, people happily tell us about side benefits—unexpected improvements in their nagging health problems.

You may think that it will be hard to make the dietary changes you need to restore your health. After all, you really love to eat, and you love the foods that are bad for you. Yet continuing to eat the way you have been guarantees that your prediabetes will turn into diabetes, most likely within the next several years. Likewise, if you improve your eating habits for a while but then return to the way you used to eat, you will jump back on the fast track toward diabetes.

There is simply no better treatment for prediabetes and being overweight than cultivating better eating habits and making other lifestyle changes. Consider just two studies that clearly show this to be true. In 2006, researchers reported in the *American Journal of Clinical Nutrition* that a combination of improved eating habits and light physical activity eliminated symptoms of prediabetes in two-thirds of the study's participants. In just six months, the participants lost significant amounts of weight, and their blood sugar, blood fats, and blood pressure decreased. Another study, published in the *New England Journal of Medicine*, found that eating healthier foods and going for regular walks were twice as effective as medications in preventing diabetes.

We believe you'll find our recommendations easier to follow than you might imagine, with meal plans consisting of tasty and satisfying foods. It may surprise you to learn that we're speaking from personal experience. That's right—we, too, had signs of prediabetes until we changed our eating habits.

JACK'S STORY

Ten years ago, I had a potbelly that seemed to grow another inch with each passing year. I felt tired all the time. And then a simple blood test told me what I didn't want to hear: I was prediabetic.

Today, I'm trim, my blood-sugar level is normal, and I feel absolutely great. Most people assume that I'm ten years younger than I actually am. I turned my life around without taking drugs or following fad diets. Granted, I didn't accomplish all this overnight, but if I can make these changes, so can you.

For years I had taken various vitamin supplements, but I paid little attention to what I was eating. By the mid-1990s, I was in denial of having a cluster of prediabetic symptoms (insulin resistance, belly fat, increasing blood pressure, and elevated cholesterol and triglycerides). My intraocular eye pressure, a risk factor for glaucoma, was also elevated at 21 and 22 mgHg.

In 1997, I went to the Center for the Improvement of Human Functioning International, where Hugh Riordan, M.D., oversaw the most comprehensive medical and nutritional workup I had ever experienced. At the time, I had a thirty-eight-inch waist and, at 170 pounds, was about twenty pounds overweight, with a body mass index of 27.

My fasting blood sugar was 111 mg/dl, which is prediabetic, and my cholesterol and triglycerides were also high. My body's levels of chromium, zinc, and magnesium, the minerals involved in managing blood sugar, were low. A dietary analysis found that I was eating too many refined, sugarlike carbohydrates, including pasta and fruit juices.

I knew what all of the test numbers meant. I was in my mid-forties and a disaster waiting to happen. Worse, I was embarrassed. After all, I earn my living as a health writer. If I couldn't keep myself healthy, what right did I have to give others advice?

When I got home, I increased my intake of alpha-lipoic acid, an antioxidant known for improving glucose tolerance. But it took me two years to figure out what to do about my eating habits. In 1999, I began writing a book titled *Syndrome X*, which

was essentially about prediabetes, yet I was still in denial about having the early stages of Syndrome X, a form of prediabetes.

At that time, my personal life and relationships were undergoing big changes, and, for some inexplicable reason, I lost my taste for pasta, which had been one of my favorite foods. I started to eat more salads and baked chicken. Over the next three months, I lost twenty pounds without trying, and my body mass index decreased to 23.5, which is within the normal range. When I had my blood sugar checked a few months later, I discovered that it had decreased 24 points to 87 mg/dl. It was a significant change—without much effort.

Over the next couple of years, I made a point of cutting back even more on refined sugarlike carbs, such as pasta, pizza, bread, tortillas, pitas, cereals, muffins, and bagels. My eating habits emphasized fresh fish, chicken, a lot of vegetables, and small amounts of brown rice or yams. Follow-up tests at the Center for the Improvement of Human Functioning International indicated modest improvements in my mineral levels, but my cholesterol and triglycerides were still high, at 265 mg/dl and 174, respectively.

In 2003, blood tests showed significant improvements. My fasting blood sugar was down to 84 mg/dl, and my HbA_{1c} (a snapshot of average blood-sugar levels over a six-week period) was a respectable 5.2 percent. By this time, I had become interested in fasting insulin, and mine was good at 8.4 mcIU/ml. (I suspect that my insulin levels had previously been much higher.) My intraocular eye pressure had decreased and was now 15 mmHg in both eyes—normal!

In 2003, I began bicycling three mornings a week. Up to that point, I had been pretty much a couch potato except for an occasional long walk or hike. Another battery of tests in 2005 indicated still more improvements, mostly because of increased physical activity.

My fasting blood sugar was now down a couple of more points to 82 mg/dl—perfect normal. My HbA_{1c} was stable at 5.2 percent, and my fasting insulin had decreased to 4.9 mcIU/ml,

which was superb. In addition, my cholesterol was down to 203 mg/dl and my triglycerides had declined to 78 mg/dl. Dr. Ron (as patients refer to Dr. Hunninghake) and I were talking about my medical chart and the many improvements since my first visit in 1997. “Jack, you have absolutely no signs of insulin resistance or prediabetes,” he said. “You’re in incredibly good health.”

In my latest round of tests, in April 2007, my numbers continued to improve. My blood sugar and insulin remained low, and my HbA_{1c} had finally decreased from 5.2 percent to 4.9 percent (the equivalent of a 77 mg/dl blood-sugar level). My iron levels were a quarter of what they were ten years before; this is important because high iron levels are a risk factor for diabetes and heart disease. My cholesterol level was down to 185 mg/dl. A separate eye exam found that my intraocular pressure was just 10 in both eyes. All of these improvements showed my health to be normal, although I must remain vigilant because of my risk of redeveloping prediabetes.

DR. RON'S STORY

Ten years ago, I met Jack for the first time when he visited the Center for the Improvement of Human Functioning International, the nonprofit nutritional medicine center where I work in Wichita, Kansas. As one of the center's physicians, I often focused more on the health of my patients than on my own. After lunch, I would usually “brown out”—I had difficulty concentrating and wanted to take a nap. I did my best to hide my tiredness from patients.

Jack and I began a remarkable collaboration as friends, as patient and physician, and now as coauthors. His insights into blood-sugar problems intrigued me and prompted me to further explore my own risk for prediabetes and that of my patients. I started to check my own blood-sugar and insulin levels and paid close attention to how I felt after eating.

In the process, I realized that I was carbohydrate sensitive—that is, my body tended to overreact when I ate too many carbs

or sugars. I discovered that I felt much better eating healthy proteins and high-fiber vegetables, which work together to stabilize blood-sugar levels. Following this approach, I now remain mentally sharp and physically energized after lunch.

Why We Wrote This Book

There's no shortage of weight-loss books—one sign of the enormity of the problem and the lack of genuine solutions. Likewise, there are also many books on dealing with prediabetes and diabetes.

We've looked at these books and, quite frankly, we found most of them lacking. Some of the books did a great job of explaining the problem but didn't offer any solutions. Others recommended diets that were high in refined carbohydrates (breads, pastas, muffins, bagels), which make both prediabetes and weight problems worse, not better.

Some authors gave vague advice and not enough practical information. Others wrote in such excruciating detail that their plans were nearly impossible to follow. For example, just when people got the hang of counting calories or carbs, a slew of new books asked them to start tracking the glycemic index of foods. Most people don't need more numbers to calculate and another hoop to jump through!

How *Stop Prediabetes Now* Is Different

When we strip away all the research and studies, the clinical experiences and case histories, we are always left with one fundamental, inescapable fact: what we eat provides the biochemical building blocks for our entire bodies. Eating mostly nutritious foods creates a strong foundation and frame, leading to good health and resistance to disease. Eating poor-quality junk foods, however, is comparable to building a house with a shoddy foundation and frame. The key to recovering from prediabetes is using better building materials for the body—swapping healthy foods for the unhealthy ones.

In the first chapter of *Stop Prediabetes Now*, we explain how the intertwined problems of overweight and prediabetes have gotten out of

hand. There are quizzes to help you assess your risk of developing prediabetes or weight problems and a description of the most important medical tests for detecting prediabetes.

In the second and third chapters, we write about food addictions—why people just can't stop eating, and we tell you why some types of calories are worse than others in causing weight gain. We explain how food companies tempt people with practically irresistible foods and then accept no responsibility for contributing to prediabetes and overweight. Certain types of foods actually promote hunger, leading to increased food consumption, obesity, and prediabetes.

In the rest of the book, we coach you on how to prevent and reverse prediabetes and lose weight. To jump-start our recommendations, we list some of the foods that actually curb appetite. When you eat less, both your weight and your blood sugar will improve. We advise you on how to be a smarter shopper—what foods to avoid and which ones you can safely eat. We take a similar approach to ordering in restaurants so that you aren't sabotaged when eating out. We also explain some of the basics of preparing healthy, simple, and quick meals at home.

We recommend scientifically supported nutritional supplements that can also help to reduce your appetite and improve your blood-sugar and insulin levels. We describe ways you can increase your physical activity without having to suffer, feel embarrassed, or become a "gym rat." We provide tips to reduce stress, improve your sleep, and mellow out mood problems caused by blood-sugar swings.

Make a Choice for Health

Recently, we had dinner with a psychologist who happened to be having a particularly difficult day. She had begun her morning with coffee and cereal, had skipped lunch, and was crashing with low blood sugar and fatigue by the time we met. Before the food arrived, she drank a beer and munched on corn chips. Inevitably, we started to talk about nutrition, and Jack commented on how fast-food restaurants serve nutritionally poor-quality foods.

Barbara snapped at him and said that people have to take responsibility for their actions and what they eat, completely missing the

irony of her own situation. Jack pointed out that nutrition is not taught in most schools, and many people don't understand the nutritional differences between a fast-food lunch and a healthier meal. Only when people realize that some foods are healthier than others do they know that they have choices.

We're all blessed with the ability to make choices. By reading this book, you are choosing to have healthy blood-sugar levels and weight. We're proud of you for making that decision.

What We Ask of You

People often go to doctors or other health-care providers much the same way that they go to car mechanics. They bring in their bodies and say the equivalent of "It's not running right. Fix it." They absolve themselves of any personal responsibility for what's wrong and then go home and only half-heartedly follow the doctor's advice. We call this "poor compliance."

At the Center for the Improvement of Human Functioning International, Dr. Ron encourages patients to become "co-learners" who get actively involved in identifying the causes of and the solutions to their health problems. They become passionate about regaining and maintaining good health. Over and over again, Dr. Ron and other health-care professionals at the center have seen the dramatic shift that occurs when a patient becomes a co-learner—a whole new world of empowerment opens up!

As people gain an understanding of how food affects their health, they become more motivated to stay on a healthy eating plan. This understanding can be general, such as knowing that sugar and sugarlike carbs make a person sick, or it can be a little more detailed in terms of nutritional biochemistry.

We would like you to become a co-learner with us as well. We will offer plenty of advice, but, in the end, you alone will make the final decision to control the course of your health.

Like anything else that you study for the first time, there's a learning curve. As you adopt the new habits detailed in *Stop Prediabetes Now*, they will become second nature. Your health will improve and you'll have a wonderful sense of accomplishment.

