



# DIABESITY

**Why You Are Sick and Fat,  
and What to Do About It**

BY MARK HYMAN, MD



One of every two of you have a deadly disease that's making you fat, sick, and will eventually kill you—and 90 percent of you don't even know you have it. What's worse is that your doctors are not trained to find it, and most don't even look for it.

This problem will cost us \$3.5 trillion over the next ten years. It is bankrupting our economy. In 30 years, 100 percent of our federal budget will be needed to pay for Medicare and Medicaid, leaving nothing for education, defense, agriculture, roads, or even social security.

So what is this deadly disease?

It's diabetes—the number one cause of obesity, heart disease, cancer, dementia and, of course, type 2 diabetes.

You might hear many terms used to describe one basic phenomenon—a new epidemic of disordered biology and disease. It is the continuum of abnormal biology that ranges from mild insulin resistance to full-blown diabetes. We call it by many names:

- » Insulin resistance
- » Prediabetes
- » Metabolic syndrome
- » Obesity
- » Syndrome X
- » Adult-onset diabetes
- » Type 2 diabetes

In truth, these are all one problem with varying degrees of severity. The diagnosis and treatment of the underlying causes that drive all these conditions are actually the same. That is why I use a more comprehensive term to describe them—diabetes.

Diabetes describes a continuum of diseases from optimal blood sugar imbalance to insulin sensitivity to full-blown diabetes. This biological imbalance is our modern plague. It affects one in two Americans and is the leading cause of most chronic diseases in this country, including cancer.

Despite this fact, there are no national recommendations from the government or key organizations to advise screening and treatment of the condition, and most doctors don't know how to properly diagnose it. The result is that 90 percent of the people who suffer from diabetes are left undiagnosed and untreated.

So how do you know if you have it? If you answer yes to any of these questions, you may already have it:

- » Do you have a family history of diabetes, heart disease, or obesity?
- » Are you of non-white ancestry (African, Asian, Native American, Pacific Islander, Hispanic, Indian, Middle Eastern)?
- » Are you overweight (BMI or body mass index over 25)?
- » Do you have extra belly fat? Is your waist circumference greater than 35 inches for women or greater than 40 inches for men?
- » Do you have sugar and refined carbohydrate cravings?
- » Do you have trouble losing weight on a low fat diet?
- » Has your doctor told you your blood sugar is a little high (greater than 100mg/dl) or have you actually been diagnosed with insulin resistance, pre-diabetes, or diabetes?
- » Do you have high levels of triglycerides (over 100 mg/dl) or low HDL (good) cholesterol (< 50 mg/dl)?
- » Do you have heart disease?
- » Do you have high blood pressure?
- » Are you inactive (less than 30 minutes of exercise 4 times a week)?
- » Have you had gestational diabetes or polycystic ovarian syndrome?
- » Do you suffer from infertility, low sex drive, or sexual dysfunction?

The instances of diabetes are increasing at an astonishing rate. When I started practicing medicine 20 years ago, not a single state in the nation had an obesity rate over 20 percent. Today, not a single state in the nation has an obesity rate under 20 percent. The prevalence of type 2 diabetes has tripled since the 1980s. There are now 27 million diabetics in the country and 336 million diabetics around the world.

The question is, "Why?" Why are we facing a diabetes pandemic? Why are our current treatment approaches failing so miserably? And why is conventional medicine floundering when it comes to diagnosing the biggest health threat of our time?

### Conventional Medicine Misunderstands the Fundamental Laws of Biology

Modern industrial medicine treats disease with medication or surgery—that's what it is designed to do. And when it comes to emergency interventions, it is still the best medicine in the world. When someone comes into the emergency room with a severed leg, conventional medicine treats the problem with incredible efficacy.

But when it comes to chronic illness like diabetes, this ap-

proach simply doesn't work. Here's why: Most medicine today is based on clear-cut, on-or-off, yes-or-no diagnoses that often miss the underlying causes and more subtle manifestations of illness. Most conventional doctors are taught that you either have a disease, or you don't; you have diabetes, or you don't. There are no gray areas.

Practicing medicine this way is extremely misguided because it misses one of the most fundamental laws of physiology, biology, and disease: The continuum concept. There is a continuum from optimal health to hidden imbalance to serious dysfunction to disease. Anywhere along the continuum, we can intervene and reverse the process. The sooner we address the issue, the better.

When it comes to diabetes, most doctors just follow blood sugar, which actually rises very late in the disease process. If your blood sugar is between 90 to 110 mg/dl, you don't have diabetes. If it's over 126 mg/dl, you do. But these distinctions are completely arbitrary and they do nothing to help treat impending problems.

For example, I remember one patient, Daren, who came to see me with mildly elevated blood sugar. I asked Daren if he had seen his doctor about this. He said he had. I then asked, "What did your doctor say?" Daren's doctor had told him, "We are going to wait and watch until your blood sugar is more elevated, and then we are going to treat you with medication for diabetes."

This attitude is absurd and harmful in the face of what we know about the problems that occur even in the absence of full-blown diabetes. Science now shows us that many people with prediabetes never get diabetes, but they are at severe risk just the same. Prediabetes actually isn't pre-anything, it's a serious health condition and needs to be treated as early as possible.

More to the point, this approach completely ignores more subtle clues from symptoms and signs of disease, which may highlight underlying metabolic imbalances (especially when complemented by further testing). These imbalances may be remedied by the appropriate treatment—treatment that is not focused on some disease, but instead works to remove those things that alter or damage our functioning, and provides those things that enhance, optimize, and normalize our functioning by balancing the system rather than treating the symptom. Doctors must treat the system, not the symptom; the patient, not the disease.

Consider the man in the emergency room with the severed leg, again. For that person, identifying what severed the leg isn't likely to make the difference between life and death. The symptom—the severed leg—must be treated if he is going to survive.

But that paradigm simply doesn't hold true for health conditions like diabetes. This mechanistic model can be applied in some health crises, but it doesn't work when it comes to chronic disease.

### Navigating the Terrain of Disease: Identifying the Causes

To effectively treat diabetes we must shift our focus away from the symptoms or risk factors of the disease and be-

gin taking a hard look at the causes. All of our attention is on treatments that lower blood sugar (diabetes drugs and insulin), lower high blood pressure (anti-hypertensive drugs), improve cholesterol (statins), and thin the blood (aspirin). But we never ever ask the most important questions. Why is your blood sugar, blood pressure, or blood cholesterol too high and why is your blood too sticky and likely to clot? Put another way: What are the root causes of diabetes?

Answering these questions must be the focus of our diagnosis and treatment of the disease if we are going to solve this global epidemic. The good news is that the answer is shockingly simple.

### The Real Causes of Diabetes

The entire spectrum of diabetes including all of its complications—diabetes, elevated blood sugar, blood pressure, and cholesterol—are simply downstream symptoms that result from problems with diet, lifestyle, and environmental toxins interacting with our unique genetic susceptibilities. Those are the real causes of diabetes.

And the reason these dietary and lifestyle factors lead to diabetes is because they create a condition known as insulin resistance. Contrary to what most people think, type 2 diabetes is a disease of too much, not too little, insulin. Insulin is the real driver of diabetes.

When your diet is full of empty calories and an abundance of quickly absorbed sugars, liquid calories, and carbohydrates (like bread, pasta, rice, and potatoes), your cells slowly become resistant to the effects of insulin; they need more and more of it to keep your blood sugar even. Thus you develop insulin resistance. A high insulin level is the first sign of a problem. The higher your insulin levels are, the worse your insulin resistance. Your body starts to age and deteriorate. In fact, insulin resistance is the single most important phenomenon that leads to rapid and premature aging and all its resultant diseases.

As your insulin levels increase, it leads to an appetite that is out of control, increasing weight gain around the belly, more inflammation and oxidative stress, and myriad downstream effects including high blood pressure; high cholesterol; low HDL; high triglycerides; thickening of the blood; and increased risk of cancer, Alzheimer's, and depression. These all result from insulin resistance and too much insulin. Elevated blood sugar is not the source of the problem.

And because insulin resistance (and diabetes) is a direct outcome of diet and lifestyle, the condition is 100-percent reversible in the vast majority of cases. Most people just need to eliminate the things that are sending their biology out of balance and include what's needed to help the body rebalance itself. For most the interventions required are extremely simple and extraordinarily effective.

### 8 Steps to Reversing Diabetes

In my new book, *The Blood Sugar Solution* (Little, Brown; 2012), I explore all of the social, economic, biological, and medical underpinnings of this health epidemic and outline a compre-



**“By learning the tests that matter and following these eight principles, you can take control of your own health and stop the progression of diabetes.”**

hensive eight-week plan for overcoming diabetes in all its forms. Here is a condensed version of the steps outlined in the book:

**1. GET THE RIGHT TESTS.** Most doctors focus on fasting blood sugar. This is actually a poor indicator of diabetes. The best test to tease out the condition is an insulin response test where insulin levels are measured fasting and then one and two hours after a glucose drink. Demand this test from your doctor.

**2. GET SMART ABOUT NUTRITION.** Despite the media hype and the seeming confusion amongst doctors, the basics of nutrition are extremely simple. Eliminate sugar and processed carbohydrates, include whole real foods like lean protein (chicken or fish), veggies, nuts, seeds, beans, and whole grains.

**3. GET THE RIGHT SUPPLEMENTS.** There has recently been a frenzy of negative reports about supplements. Most of them are unfounded. Supplements are an essential part of treating diabetes. A good multivitamin, vitamin D, fish oil, and special blood sugar balancing nutrients like alpha lipoic acid, chromium polynicotinate, biotin, cinnamon, green tea catechins, and PGX fiber should also be included.

**4. GET RELAXED.** Stress is a major unrecognized contributor to insulin resistance and blood sugar imbalance. Push your pause button every day with deep breathing, visualization, yoga, and other relaxation techniques.

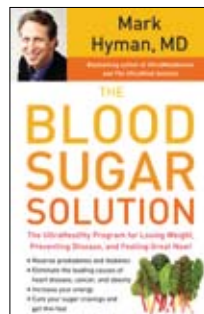
**5. GET MOVING.** Aside from changing your diet, exercise is probably the single best medication for diabetes. Walk for at least 30 minutes every day. For some, 30-60 minutes of more vigorous aerobic exercise 4-6 times a week may be necessary.

**6. GET CLEAN AND GREEN.** Environmental toxins also contribute to diabetes. Filter your water, look for green cleaning products, and avoid plastics when you can.

**7. GET PERSONAL.** While the steps above will address 80 percent of the problems with diabetes, some may need to take additional steps to optimize key areas of their biology. Remember, the medicine of the future is personal medicine. Seek out your own biological imbalances and look for ways to address them.

**8. GET CONNECTED.** Research is beginning to show that we get better more effectively when we get together. Invite your friends, families, and neighbors to change their diets and lifestyle along with you. Together we can all take back our health.

Even the most severe cases of diabetes respond to this regimen. By learning the tests that matter and following these eight principles, you can take control of your own health and stop the progression of diabetes. [MS](#)



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