

## Chapter 1

# Riding the Blood Sugar Roller Coaster Isn't Any Fun

### *In This Chapter*

- ▶ Figuring out what hypoglycemia is
- ▶ Linking hypoglycemia and diabetes
- ▶ Identifying symptoms of hypoglycemia
- ▶ Looking at who's prone to blood sugar imbalance
- ▶ Taking the road to radiant health

Over the years, researchers have coined different names for the condition that people suffer from when they believe that they have hypoglycemia, including functional hypoglycemia, relative hypoglycemia, disinsulinism, hypoglycemic fatigue, and insulinogenic hypoglycemia. Don't get too hung up on the names, though. Your attention should be on regaining your health, not worrying about what your constellation of symptoms should be called.

No matter what you or your doctor calls your low blood sugar, this chapter is a great starting point. This chapter gives you the low-down on hypoglycemia, who's prone to having it, and what you can do to make this roller coaster ride not so rough.

## *Defining Hypoglycemia*

Defining hypoglycemia is easy. It's low (*hypo*) blood sugar (*glycemia*). Modern medicine, or allopathic medicine, which is Western medicine as it's practiced in developed countries, recognizes two major categories of hypoglycemia — organic and fasting, which both generally have clear-cut causes — as legitimate. Other types of hypoglycemia, which fall under the category of relative and reactive hypoglycemia, aren't usually recognized by mainstream medicine. It's still a controversial subject, although some studies indicate that sensitive people can suffer from hypoglycemic-like symptoms

even when their blood sugar doesn't drop to a level that's medically defined as hypoglycemia. (See Chapter 5 on how blood sugar is measured.)

The diagnosis of *idiopathic reactive hypoglycemia*, or *reactive hypoglycemia* for short, isn't universally accepted by allopathic doctors. This is the type of hypoglycemia that people are referring to when they complain of being hypoglycemic. Reactive hypoglycemia is also this book's focus. In the rest of this book, unless otherwise stated, we're talking about reactive hypoglycemia.

But before you get into the rest of the book, take a look at the following sections to discover more about the different types of hypoglycemia and see where your symptoms might fall.

## Organic

With *organic* hypoglycemia, your blood sugar level when you've been fasting is invariably low. (The *fasting level* is the amount of sugar in your blood after *fasting* — not eating anything — for 10 to 12 hours.) The symptoms are usually continuous.

This type of hypoglycemia is very rare and may be caused by glandular defects or tumors. If you have organic hypoglycemia, it warrants further investigation to determine whether you have an enlarged pancreas, tumors of the pancreas, or other causes that are unrelated to what you do or don't eat.

## Relative

*Relative* hypoglycemia is a condition where your blood sugar declines from an elevated level to a low level quite rapidly. The group of people most often misdiagnosed as normal suffer from relative hypoglycemia. For example, you're said to have relative hypoglycemia if

- ✓ Your blood sugar falls 20 milligrams (mg) or more below your fasting level within six hours after eating, and you experience symptoms.
- ✓ Your blood sugar falls 50 mg or more within one hour after eating, and you experience symptoms.
- ✓ During the test that checks your blood sugar level, your blood sugar increases by 20 mg or less after ingesting the glucose that you're given to drink for the test, and then falls to at least 20 mg below your fasting level. (Chapter 5 describes the test you can take to check your blood sugar level.)

## Reactive

*Reactive* hypoglycemia refers to how your body reacts after you eat. How high or low does the blood sugar go? With this type of hypoglycemia, symptoms fluctuate according to the food you eat, the time of day when you eat, and so on. In reactive hypoglycemia, the level of sugar in your blood when you've been fasting may be normal or even a little above what's considered normal. Your body then overreacts to the glucose in the food you eat by producing too much insulin, which causes the fall in blood sugar. (That's why it's called *reactive*.) Even if the blood sugar doesn't fall below what's considered the normal range, a person may experience symptoms of hypoglycemia if the fall is fast enough.

Many health practitioners don't differentiate between reactive hypoglycemia and relative hypoglycemia. They lump the two together and call it *functional hypoglycemia*. If you hear this term, it refers to hypoglycemia that typically occurs because of an imbalance in the body chemistry, probably due to an overactive pancreas producing too much insulin.

Fasting hypoglycemia is sometimes classified as being part of functional hypoglycemia. It can occur when you haven't eaten for a while. How long that is depends on the individual, but it's generally several hours after a meal.

If your doctor uses the term *idiopathic postprandial reactive hypoglycemia* or *idiopathic reactive hypoglycemia*, he's talking about reactive hypoglycemia. *Idiopathic* is just a fancy word that doctors use to say, "We haven't got a clue what causes it." (Now you know how to profess ignorance and still sound smart!) *Postprandial* means "after a meal." *Reactive* relates to how your body responds to the food you eat. Some researchers have proposed the term *idiopathic postprandial syndrome* because many people who have the signs of reactive hypoglycemia don't necessarily have low blood sugar.

If you suffer from reactive hypoglycemia, your body generally reacts negatively to sugar and simple starches, because it can't handle the excess sugar load. You usually start feeling the effect about 2 to 4 hours after eating "bad" foods.

## Like a Greased Pig: Easy to Define, Tough to Pin Down

Because hypoglycemia is so easy to define, you'd think that determining who has low blood sugar would be a simple matter. All you

should have to do is measure the blood sugar and *voilà!* — you have incontrovertible proof that someone has hypoglycemia.

Alas, it's not that cut and dried. Experts disagree on what constitutes a hypoglycemic condition. Today's standard medical practice is to consider hypoglycemic levels of blood sugar lower than 45 mg per deciliter of blood. The benchmark used to be higher, but it has shifted downward over the years, and doctors still disagree with one another in terms of finding and diagnosing the condition. For instance, some health practitioners argue *no* range of blood sugar is definitive in determining hypoglycemia; they believe instead that the speed with which the blood sugar drops is more important than how low it goes. (Chapter 5 gives you more detailed information about diagnoses and measurements.)

And that's not the only controversy surrounding hypoglycemia. These bits add to the trouble:

- ✔ Symptoms are nonspecific. (You can read more in Chapter 3.)
- ✔ Symptoms don't always correlate with blood glucose (sugar) concentrations measured during an oral glucose test. (More on this test in Chapter 5.) The rate at which the blood sugar drops is just as important, but doctors often ignore this rate.
- ✔ Glucose levels are rarely measured when people develop symptoms spontaneously (not easy to manage unless someone follows them around with a syringe).
- ✔ Hypoglycemia is a misnomer. Rather than low blood sugar, it's more a matter of the body being unable to effectively absorb certain carbohydrates. Different people react differently to ingested sugars and carbohydrates, with some having a higher tolerance level than others. Thus, the condition may be better described as *carbohydrate intolerance* or *glucose instability syndrome*.
- ✔ Many symptoms of hypoglycemia are caused not by the drop in blood sugar, but by the resulting glandular imbalances. For example, to counter the emergency created by the blood sugar falling too low or too rapidly, the body dumps adrenaline (epinephrine).

In the 1970s, after several books popularized hypoglycemia, many people jumped on the hypoglycemia bandwagon, and it became an over-diagnosed condition — a fad disease that most respectable healthcare practitioners strived to steer clear of. So it's understandable that many doctors are skeptical. It's also unfortunate, because they're unable to help patients who ask "If I'm so healthy, why do I feel so bad?"

Although diagnosing hypoglycemia is difficult, you can still work closely with your doctor to figure out what's causing your symptoms. This section helps you (and your doctor) get a firmer grasp on your symptoms in order to make the correct diagnosis.

## *Identifying key symptoms*

The symptoms of hypoglycemia aren't fatal, but they can seriously detract from the quality of life. The immediate physical symptoms of low blood sugar are

- ✓ Mental confusion (brain fog)
- ✓ Inability to think rationally
- ✓ Weakness
- ✓ Shakiness

These symptoms can be alleviated by eating. The more debilitating symptoms of chronic hypoglycemia, however, are longer lasting and not immediately relieved by eating. Chapter 3 talks more about symptoms and syndromes that are often associated with hypoglycemia. We also discuss the various causes of low blood sugar in people of different age groups.

The link between food and symptoms is undeniable. Face food facts! This book can help you do that by offering alternatives to the foods you currently eat. Flip to Chapter 6 for info on the foods you can and can't safely eat as a hypoglycemic. If you have a partner and/or children, flip to Chapter 13 for help on setting up a diet lifestyle with your family.

## *Arriving at a diagnosis*

Some people may have low blood sugar levels without hypoglycemic symptoms, while others may have symptoms of hypoglycemia, even severe ones, even though their blood sugar is within normal range. Therefore, measuring blood sugar is an unreliable way to diagnose hypoglycemia. Doctors too often ignore the rate at which the blood sugar drops, failing to recognize that some patients develop symptoms when the blood sugar falls quickly.

For these and other reasons, hypoglycemia is often dismissed as imaginary. Despite the protests of some medical organizations, many nutritionally oriented physicians, naturopaths, and other alternative practitioners assert that hypoglycemia is a real clinical entity. Instead of over-relying on glucose tests, which are often

## Hit the Web for more resources

In this book we provide tons of helpful info so you can counter your hypoglycemia and not be tied down by its symptoms. However, we have only 288 pages to provide you with just the basic information. If you want more in-depth info and to keep up-to-date on what's happening in the fight against hypoglycemia and related ailments, then check out the following Web sites:

- ✓ **American Diabetes Association ([www.diabetes.org](http://www.diabetes.org)):** This Web site provides information on diabetes, guidelines for healthy living, recipes, an e-newsletter, and an online store.
- ✓ **CDC Diabetes Public Health Resource ([www.cdc.gov/diabetes](http://www.cdc.gov/diabetes)):** Here, you can find a wide assortment of information and resources on diabetes. The Web site also has links to other good sources of information.
- ✓ **eMedicineHealth.com ([www.emedicinehealth.com/low\\_blood\\_sugar\\_hypoglycemia/article\\_em.htm](http://www.emedicinehealth.com/low_blood_sugar_hypoglycemia/article_em.htm)):** This consumer health information site provides comprehensive info for first aid and emergency situations for injuries and minor medical conditions. It also provides health, medical, lifestyle, and wellness information on a variety of topics, including hypoglycemia. Physicians wrote more than 5,500 pages of content for patients and consumers.
- ✓ **Health Connection Radio ([www.healthconnectionradio.com](http://www.healthconnectionradio.com)):** This station (WKAT 1360 AM) in South Florida has been providing information on health, wellness, and nutrition since 1996. Topics include hypoglycemia, diabetes, and alcoholism. Download the programs, hosted by Jay Foster (the director of Body Chemistry Associates and a certified clinical nutritionist), from the Web site.
- ✓ **Hypoglycemia Health Association of Australia ([www.hypoglycemia.asn.au](http://www.hypoglycemia.asn.au)):** This nonprofit charitable organization provides information to its members on hypoglycemia and other nutritional disorders. It offers numerous articles, useful links to other sites, and recipes for hypoglycemics for free. The association mails newsletters, covering lectures on hypoglycemia and other related subjects, to members. Membership is \$20 per year.
- ✓ **Hypoglycemia Homepage Holland ([hypoglykemie.nl](http://hypoglykemie.nl)):** This Web site offers general information about hypoglycemia, as well as health tips, a newsgroup, and lists of other helpful resources.
- ✓ **Voice America: Health & Wellness ([health.voiceamerica.com](http://health.voiceamerica.com)):** This Internet Talk Radio was the first to air live, online radio broadcasts. Since 1998, the station has been offering shows about a wide range of health issues discussed by physicians, alternative healthcare practitioners, writers, and others who are active in the health field. Audiences can listen to any of the station's network programs at any time through on-demand audio streaming or podcasting links. Guests featured are professionals from various walks of life, all related to health and wellness.

inaccurate, these health professionals diagnose their patients through symptoms, and successfully treat the disorder by changing their patients' diets. You can read more about these medical practitioners in Chapter 4.



The best way to diagnose the disorder is through a combination of various lab tests (which we discuss in detail in Chapter 5) and an assessment of symptoms (which we discuss in Chapter 3). In addition, you can try eliminating foods from your diet to see whether symptoms clear up. As we explain in Chapter 3, food allergies can, at times, cause hypoglycemia. The food journal we talk about in Chapter 6 can also help you determine which foods may affect you.



You should see a doctor before you do anything, especially if it's been several years since your last physical checkup.

## *Knowing Who's Prone*

Hypoglycemia can strike anyone at any age. Unlike diabetes, not enough studies have been performed to create an accurate profile. Nevertheless, because reactive hypoglycemia can be an early sign of diabetes, it's reasonable to believe that hypoglycemics and diabetics share a genetic predisposition for metabolic disorders and similar risks for environmental triggers.



Research suggests that the following people are hypoglycemia's likeliest victims:

- ✓ Women suffering from premenstrual syndrome (PMS).
- ✓ People suffering from severe stress.
- ✓ People who are overweight (although some are underweight due to their faulty carbohydrate metabolism).
- ✓ Alcoholics. Some researchers have concluded that alcoholism is actually an unrecognized problem with body chemistry, and that all alcoholics are, in fact, hypoglycemics.

This section discusses why hypoglycemia affects certain people and briefly examines the relationship between hypoglycemia and diabetes.

## *Prevailing problem: The pudge!*

The sugar and refined carbohydrate-laden diet that the majority of people in developed countries eat has led to a host of health problems, and hypoglycemia is one of them.



Although most medical and health organizations recommend that no more than 10 percent of total caloric intake be derived from the refined sugars added to foods, the fact is that most people in developed countries eat far more than that (possibly three times that amount), and despite recommendations, the ideal amount is zero. And what's even more alarming is that some lesser-developed Asian countries are getting a sweet tooth that rivals the richer nations! Statistics show that the consumption of sugar worldwide is increasing by 1 to 2 percent every year. Small wonder so many people have a pudge of a problem.

## ***Like a couple of hooligans: Linking hypoglycemia and diabetes***

You probably know someone who has diabetes. But you may not know that hypoglycemia and diabetes are linked. Blood sugar imbalance underlies both disorders. In the case of hypoglycemics, experts theorize that over a prolonged period of time, too much insulin (from eating sugar and simple starches) followed by a blood sugar drop results in cells losing their sensitivity to insulin. Thus, although hypoglycemia may seem to be the opposite of diabetes, it's, in fact, considered to be a pre-diabetic condition.

Both diabetics and hypoglycemics should treat their condition through dietary means. The recommended diet for diabetes and hypoglycemia is, in fact, quite similar — although low blood sugar sufferers are often advised to reduce their carbohydrate intake, at least during the early part of treatment. Chapter 3 gives more information about diabetes and hypoglycemia and how they're related. Chapter 6 gives the scoop about using your diet to your health's advantage.

## ***Heading Toward Better Health***

A paradigm shift has been taking place in recent years in most Western countries, as more people are searching for alternative practices for attaining good health — something that crisis-driven Western medicine is unable to offer. The new paradigm holds a high regard for the nutritional basis of disease. The new paradigm, with its holistic, body-mind approach to health and healing, can more fully address hypoglycemia's spectrum of problems. A *holistic* approach looks at the patient's entire lifestyle, in addition to diet, for clues to what's causing the illness.





Think of this as a journey toward greater health — a journey of transformation to a new approach to living and a greater sense of well-being. In this book, we show you how the transition into a healthy life can be smooth and not as painful as you may suspect.

The following list shows where you may be starting. If you follow the physical and food advice given in this book, you can come out on the other side looking and feeling a whole lot better.



- ✓ **Not eating right — right now:** You should be eating six small meals, or three small meals and three light snacks, per day, although you may eat more frequently if you need to when you first embark on the program. This diet is very similar to a diabetic diet and doesn't include sweets or sugars.

If you want healthy recipes, the Internet is a great source. Plenty of good diabetes cookbooks exist as well, including the *Diabetic Cookbook For Dummies*, by Alan L. Rubin, MD, Alison G. Acerra, RD, and Chef Denise Sharf (Wiley). You can safely follow any recipes created for diabetics as long as you refrain from using artificial sweeteners.

People are often surprisingly uninformed regarding diets and facts about hypoglycemia. Chapter 15 sets the record straight on commonly held misperceptions.

- ✓ **Overweight:** For various reasons, low blood sugar can lead to weight gain. One reason is that you may be giving in to an increased desire for sweets; Chapter 8 can help get you motivated to get moving. In addition, overeating sweets and starches overstimulates insulin production, and too much insulin causes excess storage of fat.
- ✓ **Underweight:** You may have been gorging yourself on sugars and starches in a futile attempt to gain weight. (And evoking jealousy among your friends in the process.) If so, addressing your underlying metabolism disorder can help you put on the pounds that you want and need.
- ✓ **Combating depression and mood disorders:** When Abraham Lincoln said, "People are as happy as they make up their minds to be," little knowledge existed about the basics of depression. (Ironically, evidence suggests that Lincoln himself was a generally depressed person, who never did fully "make up his mind" to be happy. Could he have suffered from hypoglycemia? Or an associated condition?) Chapter 10 talks more about depression.
- ✓ **Lacking a solid support structure:** When you have a condition that undermines your effectiveness in daily life and chips

away at your confidence and self-esteem, you need a bridge. The support structure that you create for yourself is this bridge. (See? It's all up to you: Not only are you responsible for food and exercise, but finding support is all about you, too.)

A support person or group can help guide you through, especially when you're just beginning your recovery program. Chapter 12 tells you how to get the support you need. In addition, we give you plenty of online resources that can help you.



Every individual is so different that predicting a time frame of recovery is difficult, but in general, you should start to see a noticeable improvement in your health in about three months. Having an occasional bad food day won't negate your progress — but don't kid yourself. Going off your food plan for several days, not to mention weeks, will definitely impede your progress.