



# Diabetes

## In This Issue:

- ▶ Manage Diabetes with Small Changes
- ▶ The Role of Your Diabetes Educator
- ▶ Prediabetes: A Call to Action
- ▶ Insulin and Diabetes: Your Questions Answered

## Manage Diabetes with Small Changes

**One man learns simple ways to keep diabetes under control by substituting water for soda and hitting the gym more often.**

“If you’re not living on the edge, you’re taking up too much space,” was the motto Jeff Peterson liked to live by. “I always ate what I wanted, drank what I wanted and never went to the doctor,” says the 53-year-old energy consultant and father of four. “I guess you could say I was a typical man.”

But he found himself suffering from fatigue, constant thirst and a sense that “something wasn’t working at 100 percent.” So, six years ago, Peterson made an appointment for his first physical in decades. “When my doctor came back with the blood work and told me I had type 2 diabetes, you could have heard a pin drop in that room,” he says. “It was a shock.”

Last year, almost 2 million Americans learned they had diabetes. Diabetes is a set of distinct diseases, with the most common forms being type 1, type 2 and gestational diabetes. Each type takes its own path, but they all share a root problem: a breakdown of the body’s ability to convert the glucose that we get from food into the energy that we need to thrive.

“I think it’s normal to try to deny it at first, like I did,” Peterson says of his diagnosis. “But at some point, you’re going to have a wake-up call.” His came last year, when he happened to see an American Diabetes Association (ADA) display showing the staggering 40 teaspoons of sugar found in some super-sized soft drinks. “That was when I realized that if I didn’t start making some changes, my diabetes was only going



### Video Spotlight:

[Managing Diabetes](#)

[Treating Diabetic Hypertension](#)

### Website Spotlight:

[www.UHCDiabetes.com](http://www.UHCDiabetes.com)

Access practical tools and resources, including goal and tip sheets, a risk quiz, blogs, and videos to help prevent and manage diabetes and obesity.

to get worse,” which could leave him at increased risk of heart disease, blindness and other complications.

Now, Peterson joins his wife at the gym a few times a week, swaps a few of the sodas he used to drink every day for water and takes his blood sugar readings regularly.

“They’re just small changes, but they do make a big difference,” he says. “The numbers are coming down the way they should.” He also joined his local

ADA chapter and serves on its board, was captain of “Team Red” for the Walk to Stop Diabetes and now gives support to other people newly diagnosed with the disease.

Looking back on his six-year diabetes journey, Peterson says he wishes he’d known two things sooner: “I wish I would have known how serious diabetes can be, but also how simple it can be to keep it under control.”

## The Role of Your Diabetes Educator

**From choosing the best glucose meter for you to planning meals, your diabetes educator can help you manage many aspects of your diabetes.**

Finding out you have diabetes can be overwhelming. Blood sugar checks, taking insulin and/or other medication and diet changes can all be confusing. Luckily, you don’t have to go at it alone. Diabetes educators can help you make sense of your diagnosis, and get you on track to good blood sugar control.

### What is a diabetes educator?

Diabetes educators are trained, often certified, health professionals who help you with day-to-day methods for managing your diabetes. They give you the skills you need to live a healthy lifestyle and keep blood sugar under control.

Your diabetes educator may also be a nurse or a registered dietician. It’s possible that he or she can help you with even more aspects of your diabetes care.

### Focus on behavior change

The American Association of Diabetes Educators (AADE) uses a framework of seven self-care behaviors to effectively change behavior that may improve diabetes control. The goal of your diabetes educator is to help you learn self-management skills that will lead to good glucose control. Diabetes educators teach you how to:



- 1. Have good nutrition.** What, when and how much you eat affects your blood sugar levels. Children and teens need to eat well to grow. Adults need to maintain a healthy weight to reduce their risk of complications. Your diabetes educator teaches you how to:
  - Make healthy meal and snack choices
  - Keep portion sizes in check
  - Read a nutrition label
  - Prepare nutritious meals
- 2. Be physically active.** Being active helps keep blood sugar under control, aids weight loss and improves blood pressure and cholesterol levels. This lowers your risk for medical problems. Diabetes educators will teach you how to overcome exercise obstacles, such as lack of motivation or time. You’ll also work together to create a workout program that suits your needs.

**3. Know your numbers.** Blood sugar checks at the frequency recommended by your doctor are a must for people with diabetes. Many people will need to do these checks daily, others multiple times daily and others will need to do them on a less frequent basis. You may also need to check your blood sugar if you think it's going too high or too low. Knowing your blood sugar levels helps you and your doctor see if your treatment plan is working. Other numbers are important, too. You may need to take your blood pressure, check your urine for ketones and weigh yourself regularly.

Diabetes educators will help you:

- Choose a glucose meter and give tips for using it
- Know when to test your blood sugar, blood pressure, check for ketones or weigh yourself
- Know what your readings mean
- Keep track of your results

**4. Take your insulin and medication.** Your diabetes educator will give you tips on taking insulin and teach you how medicine affects your body, including possible side effects.

**5. Solve problems.** Things are going to happen that take a toll on blood sugar control. You may get sick, feel stressed, not eat enough or exercise too hard. Your diabetes educator will teach you how to prevent and treat these reactions so you're ready to deal with them when they occur.

**6. Cope with your illness.** Your diabetes educator is there to offer support. He or she will help you cope with your worries, fears and guide you in making decisions about your care.

**7. Reduce your risk of complications.** People who have diabetes are at risk for heart disease, stroke, kidney damage and blindness. Your diabetes educator will teach you about the link between diabetes and other diseases. He or she will also give you tips to reduce your risks.

## Types of diabetes educators

There are two types of certification for diabetes educators:

- Certified Diabetes Educators (CDEs) are certified by the National Certification Board for Diabetes Educators
- Board Certified in Advanced Diabetes Management (BC-ADM) certification is offered jointly by the American Association of Diabetes Educators and the American Nurses Credentialing Center

CDEs and BC-ADMs both:

- Are trained health professionals
- Have extensive experience with diabetes
- Take continuing education courses to stay up-to-date with the diabetes field

## Is a diabetes educator for me?

A diabetes educator is a great resource for people with diabetes. If you are newly diagnosed or have trouble controlling your blood sugar, a diabetes educator can help you take charge of your disease.

Your doctor can refer you to a diabetes educator in your area. You may meet one-on-one with an educator or in a group setting. The cost of seeing a diabetes educator may be covered by your health insurance. Check with your insurance company to find out.



# Prediabetes: A Call to Action

**If you've been told you have prediabetes, it's time to take control of your condition and prevent or delay type 2 diabetes.**

If your doctor has said you have prediabetes, you may not be too concerned. But don't take it lightly. Although prediabetes is not yet diabetes, it is a warning sign that type 2 diabetes may lie ahead. It means your body may not be using or making insulin properly.

Prediabetes can be a slippery slope to diabetes. An estimated 26 million people in the U.S. have diabetes. Another 79 million have prediabetes. Each year, some of these people will progress to full-blown diabetes. And many of them won't even realize it.

But, diabetes can often be prevented. Learn the steps you can take to protect your health.

### Preventing diabetes

Prediabetes doesn't have to become diabetes. Research has found that diabetes can be prevented or delayed with lifestyle changes. In fact, some people can get their blood sugar levels back to normal range.

To prevent or delay diabetes:

- **Lose some weight.** Losing just 5 to 7 percent of your weight can make a big difference in your blood sugar. For a 200-pound person, that's a weight loss of only 10 to 14 pounds.
- **Boost your physical activity.** Moderate exercise, like walking 30 minutes a day, five days a week, can lower your blood sugar and also help you lose weight.

Just making these two changes can cut your risk of getting diabetes by more than half. These lifestyle changes can also help lower your blood pressure and cholesterol. Talk to your doctor about how to start exercising and making healthy food choices that can help you lose weight.



### What is prediabetes?

Prediabetes means your blood sugar level is higher than normal but not yet high enough to be called diabetes. And it tends to get worse over time. If you have prediabetes, there is a good chance that you will get diabetes within the next 10 years unless you take steps to prevent it.

Your body's cells need glucose (sugar) for energy. But the cells can't use glucose unless they also have insulin, a hormone made by the pancreas. Having prediabetes means your body isn't making enough insulin and/or has trouble using the insulin it produces. This causes sugar to build up in your blood.

Even before your blood sugar rises high enough to be diabetes, it may cause lasting damage to your blood vessels and increase your risk of heart disease and other harmful conditions.

### How will I know I have prediabetes?

You probably won't know you have prediabetes unless you get tested. Prediabetes usually doesn't cause any symptoms. You can have diabetes without knowing it because many symptoms can come on so gradually that you may not notice them.

A blood test can show if your blood sugar, or plasma glucose, is above normal. Your doctor can use any of these three tests to check for prediabetes:

- **Fasting plasma glucose.** For this test, your blood is tested first thing in the morning after an eight-hour fast. A result of 100 to 125 mg/dL may mean you have prediabetes.
- **Oral glucose tolerance.** For this test, your blood is tested first thing in the morning after fasting and again two hours after you drink a sugary drink. A result of 140 to 199 mg/dL may mean you have prediabetes.
- **Hemoglobin A1C (HbA1C) test.** This is a simple blood test. You will not need to change your diet. An A1C level of 5.7 to 6.4 percent may signal prediabetes.

## Who should be tested for prediabetes?

The American Diabetes Association says anyone age 45 and older should be tested.

If you're younger than 45 and overweight, your doctor may want you to be tested if you have any other risk factors for diabetes, such as:

- Lack of exercise
- High blood pressure
- High triglycerides and/or low HDL (good) cholesterol
- A history of heart disease
- A parent or sibling with diabetes
- A history of gestational diabetes, or having given birth to a baby who weighed more than nine pounds
- Polycystic ovary syndrome or PCOS
- Belonging to a high-risk ethnic group, including African American, Native American, Hispanic/Latino, Asian American or Pacific Islander

## Insulin and Diabetes: Your Questions Answered

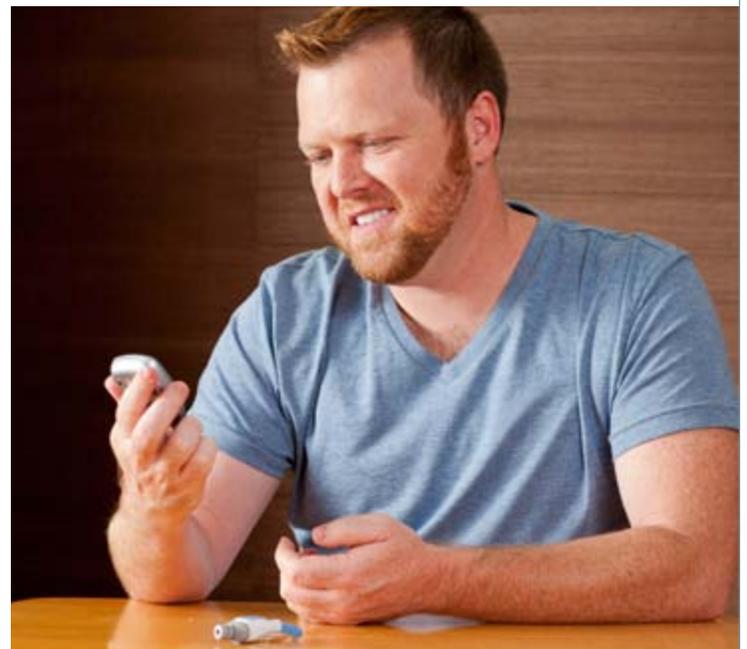
**People with diabetes often have to take insulin shots. Here are the answers to some common questions about insulin.**

People with diabetes often have to take insulin shots. If you or someone in your family has been diagnosed with diabetes, you may have a lot of questions about insulin. Here are some answers.

### What is insulin, and why is it important?

Insulin is a hormone that helps your body use sugar. It is made by the pancreas, a large organ that lies behind your stomach.

When you eat, your digestive system breaks the food down into simpler forms that the body can use. Most food is broken down into a form of sugar called glucose. Glucose travels through the body



in the blood. Insulin helps glucose move from the bloodstream into the cells, where it can be used for energy, growth and repair.

### What does insulin have to do with diabetes?

In healthy people, the pancreas releases the right amount of insulin to move glucose into the cells. But people with diabetes have a problem:

# Diabetes

- People with type 1 diabetes don't make insulin.
- People with type 2 diabetes either don't make enough insulin or their bodies don't use it properly, which is called insulin resistance.

Without the proper amount of insulin, glucose builds up in the blood and passes out of the body in the urine. This means the body loses its main source of energy. High blood sugar also damages the blood vessels and nerves throughout the body, which can lead to serious problems.

Taking insulin shots helps correct the balance between blood sugar and insulin in the body. All people with type 1 diabetes need to take insulin. Some people with type 2 diabetes take insulin.

## Can insulin be taken as a pill instead of a shot?

No. At this time, insulin is available only as an injection. If insulin was swallowed, it would be destroyed by the digestive system. It needs to be injected into the fat under the skin.

Most people who need insulin use syringes to give themselves shots. Some people use insulin pens, pumps or jet injectors. Experts keep looking for easier ways to take insulin.

## Is all insulin the same?

No. There are four different types. The types are based on how quickly they work (onset) and how long they work (duration).

- **Rapid-acting insulin** starts to work five minutes after it's injected and keeps working for two to four hours.
- **Short-acting insulin** starts to work within 30 minutes and keeps working for three to six hours.
- **Intermediate-acting insulin** starts to work within two to four hours and keeps working for 12 to 18 hours.
- **Long-acting basal insulin** starts to work within one hour and keeps working for 20 to 26 hours.

There are more than 20 different insulin products. Many people use an insulin product that combines either a rapid- or short-acting insulin with an intermediate-acting one. This is often the best way to keep blood sugar at an even level.

## Does insulin cause side effects?

Insulin can cause:

- Low blood sugar
- Weight gain

Taking too much insulin can cause blood sugar to drop too low. This can be dangerous. That's why it's important to always check blood sugar before taking an insulin shot.

