# What is Diabetes?

Diabetes is a chronic (long-lasting) disease that affects how your body turns food into energy. Most of the food you eat is broken down into sugar (also called glucose) and released into your bloodstream. Your pancreas makes a hormone called insulin, which acts like a key to let the blood sugar into your body's cells for use as energy. If you have diabetes, your body either doesn't make enough insulin or can't use the insulin it makes as well as it should. When there isn't enough insulin or cells stop responding to insulin, too much blood sugar stays in your bloodstream, which over time can cause serious health problems, such as heart disease, vision loss and kidney disease.

In the last 20 years, the number of adults diagnosed with diabetes has more than tripled as the American population has aged and has struggled with weight. It is the seventh leading cause of death in the U.S.

There isn't a cure yet for diabetes, but healthy lifestyle habits, taking medicine as needed, getting diabetes self-management education and keeping appointments with your healthcare team can greatly reduce its impact on your life.

#### **Types of Diabetes**

**Prediabetes** is a serious health condition where blood sugar levels are higher than normal, but not high enough yet to be diagnosed as diabetes. Prediabetes increases your risk for type 2 diabetes, heart disease and stroke. In the U.S., more than 1 in 3 adults have prediabetes, and 90% of them don't know they have it. You can prevent or reverse prediabetes with simple, proven lifestyle changes, such as losing weight, eating healthier and getting regular physical activity.



You are at risk for prediabetes if you:

- Are overweight
- Are 45 years of age or older
- Have a parent, brother or sister with type 2 diabetes
- · Are physically active less than three times a week
- Have ever had gestational diabetes (diabetes during pregnancy) or given birth to a baby who weighed more than nine pounds
- Are African American, Hispanic/Latino American, American Indian or Alaska Native (some Pacific Islanders and Asian Americans are also at higher risk)

Type 1 diabetes is caused by an autoimmune reaction (the body attacks itself by mistake) that stops your body from making insulin. About 5% of the people who have diabetes have type 1. Symptoms of type 1 diabetes often develop quickly. It's usually diagnosed in children, teens and young adults. There is a greater risk of developing diabetes if you have a family history of the condition. In the United States, Caucasians are more likely to develop type 1 diabetes than African Americans and Hispanic/Latino Americans.

Currently, no one knows how to prevent type 1 diabetes. If you have type 1 diabetes, you'll need to take insulin every day to survive.



With **Type 2 diabetes**, your body doesn't use insulin well and is unable to keep blood sugar at normal levels. Most people with diabetes—9 in 10—have type 2 diabetes. It develops over many years and is usually diagnosed in adults (though increasingly in children, teens and young adults). You may not notice any symptoms, so it's important to get your blood sugar tested if you're at risk. Type 2 diabetes can be prevented or delayed with healthy lifestyle changes, such as losing weight, healthy eating and getting regular physical activity.

You're at risk for developing type 2 diabetes if you:

- · Have prediabetes
- · Are overweight
- Are 45 years of age or older
- Have a parent, brother or sister with type 2 diabetes
- Are physically active less than three times a week
- Have ever had gestational diabetes (diabetes during pregnancy) or given birth to a baby who weighed more than nine pounds
- Are African American, Hispanic/Latino American, American Indian or Alaska Native (some Pacific Islanders and Asian Americans are also at higher risk)

Gestational diabetes develops in pregnant women who have never had diabetes. If you have gestational diabetes, your baby could be at higher risk for health complications. Gestational diabetes usually goes away after your baby is born, but increases your risk for type 2 diabetes later in life. Your baby is more likely to have issues with weight as a child or teen, and more likely to develop type 2 diabetes later in life too.



These articles are not a substitute for medical advice and are not intended to treat or cure any disease. Advances in medicine may cause this information to become outdated, invalid or subject to debate. Professional opinions and interpretations of scientific literature may vary. Consult your healthcare professional before making changes to your diet, exercise or medication regimen.

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# **Managing Your Diabetes**



### Monitor your blood sugar.

Blood glucose monitoring is a critical part of every diabetes management plan. Regular self-monitoring can provide important information on how daily management plans are working to control blood glucose levels. Ask your doctor how often you should test and what your target numbers should be. Benefits of regular self-monitoring include:

- Achieving a better understanding of diabetes and how to improve glucose control
- Recognizing patterns in blood glucose levels and understanding the cause for changes
- Preventing the occurrence of high and low blood glucose levels



### Take your medicine as prescribed.

It sounds simple but missing a dose or two can really hurt you in the long run. Those with diabetes are at higher risk for debilitating, costly conditions like heart attack, stroke, nerve damage, kidney problems and blindness. Taking your medication as prescribed can help protect you from some of the long-term complications of diabetes.



## Find out if a statin is right for you.

If you have diabetes, you are at increased risk for heart disease and stroke, and taking a cholesterol medication called a statin can help lower your risk. As a diabetic, it's important to talk about statin therapy with your healthcare provider right away to see if it's the right choice for you.





## Get regular check-ups.

Most people with diabetes should get their cholesterol checked at least once a year. Testing hemoglobin A1C levels is also important for managing your diabetes and may be appropriate twice a year or more to stay in your best health. Ask your doctor about target numbers for both tests.



### Communicate with your doctor.

It's important to talk to your doctor before changing the way you take your medication. Let your doctor know right away if you have side effects or reactions. Tell them if you have been ill or are taking any other medications, even if they are over the counter.



#### Keep track.

Keep a personal medication record to help track your usage. Download a medication tracker here: elixir.info/medtracker.





#### Eat healthy foods and follow a meal plan.

Eating healthy is just as important to managing your diabetes as taking your medications. You can make simple changes that make a big impact, including:

- Eating smaller portions. Learn what a serving size is for different foods and how many servings you need in a meal.
- Eating less fat. Choose fewer high-fat foods and use less fat for cooking, limiting those high in saturated fats or trans fat, such as fried foods, fatty cuts of meats, and sweets.
- Drinking fewer beverages that are high in sugar, such as fruit-flavored drinks, sodas, and tea or coffee sweetened with sugar.
- Focusing on getting more fiber by eating more whole-grain foods, and a variety of fruits and vegetables.
- · Eating fewer foods that are high in salt, such as canned and packaged soups and vegetables and processed meats.



## **Exercise and stay active.**

Physical activity can help you control your blood glucose, weight and blood pressure, as well as raise your "good" cholesterol and lower your "bad" cholesterol. It can also help prevent heart and blood flow problems, reducing your risk of heart disease and nerve damage, which are often problems for people with diabetes.

Experts recommend moderate-intensity physical activity for at least 30 minutes five or more days of the week, such as walking briskly, mowing the lawn, dancing, swimming or bicycling.

If you are not accustomed to physical activity, you may want to start with a little exercise and add a few extra minutes as you get stronger. Do some physical activity every day. It's better to walk 10 or 20 minutes each day than one hour once a week. Do physical activities you really like. The more fun you have, the more likely you will do it each day.

While exercise is very important for people with diabetes to stay healthy, there are a few things to watch out for.

- Drink plenty of fluids during physical activity since your blood glucose can be affected by dehydration.
- To help prevent hypoglycemia, check your blood glucose before you exercise. If it's below 100, have a small snack.
- Do not exercise if your blood glucose is above 300, or your fasting blood glucose is above 250 and you have ketones in your urine.
- If you take insulin, ask your healthcare provider if there is a preferable time of day for you to exercise, or whether you should change your dosage before physical activity.
- Diabetes-related nerve damage can make it hard to tell if you've injured your feet during exercise. Wear cotton socks and athletic shoes that fit well and are comfortable. After you exercise, check your feet for blisters, irritation, cuts or other injuries.
- Talk to your healthcare provider about a safe exercise plan. If you have high blood pressure, eye or foot problems, you may need to avoid some kinds of exercise.

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# **Low Blood Sugar**

Low blood sugar, also called hypoglycemia, means that your blood sugar is below normal levels. Why is that a problem? Blood sugar fuels your body's cells, and if those cells don't get the fuel they need, your body may not function properly. Symptoms of hypoglycemia range from feeling dizzy and confused to more extreme symptoms, such as passing out or fainting. This condition is primarily a problem for people with diabetes, but with the right prevention methods, it's a problem that can easily be managed.

#### **Causes of Low Blood Sugar**

Many people with diabetes are on insulin or other medications to help manage their blood sugar levels, but these medications can also cause low blood sugar. Here are some situations that may cause your levels to dip:

- · Taking too much insulin
- Skipping a meal or eating later or less than normal (but still taking the same amount of medication or insulin)
- Engaging in excess physical activity without eating enough beforehand
- Drinking too much alcohol or drinking on an empty stomach

#### **Warning Signs of Low Blood Sugar**

Symptoms vary from person to person and can become more severe if not treated. Common early symptoms include:

- · Shakiness, nervousness or anxiety
- · Sweating, chills and clamminess
- · Irritability or impatience
- · Confusion or dizziness
- · Rapid/fast heartbeat
- · Hunger and nausea
- · Weakness or feeling tired





#### **How to Treat Low Blood Sugar**

Symptoms can come on quickly, which means it's important to know how to be prepared. According to the American Diabetes Association (ADA), the only way to know for sure that you are experiencing low blood sugar is to check your glucose levels.

Usually, low blood sugar means you have a reading below seventy milligrams per deciliter (mg/dL). If you can't check your glucose and you're experiencing symptoms, you should still treat yourself right away because if it drops too low, you could experience severe symptoms.

Treatment steps include:



Eat or drink something with fifteen grams of carbohydrate. Options include four glucose tablets, ½ cup of fruit juice or regular (non-diet) soda, or hard candies (refer to their packaging to determine the appropriate quantity).



Don't eat something with high amounts of fat or fiber because it may slow absorption of glucose into your bloodstream.



After eating or drinking, wait about fifteen minutes, then check your blood sugar. If it's still below seventy mg/dL, then eat another fifteen grams of carbohydrates.



Repeat treatment steps until your blood sugar is in its normal range.

If you're still not feeling well and your glucose levels do not return to normal, you should have someone drive you to the emergency department or call 911. Do not drive when you're experiencing hypoglycemia.

If you have severe symptoms, such as seizures, convulsions or unconsciousness, someone else will need to treat you with glucagon, a hormone that stimulates the release of glucose into your bloodstream when your blood glucose levels are too low. Emergency glucagon kits are available by prescription.

#### **How to Prevent Low Blood Sugar**

The best way to manage low blood sugar is to prevent it from happening. Here are some preventative steps you can take:

- · Monitor your blood sugar frequently.
- Educate friends and family about your signs of low blood sugar and teach them how to help you.
- Carry glucose tablets or other healthy snacks with you at all times. Keep them along with your other essential supplies in an on-the-go diabetes kit.
- Talk to your doctor about ways to reduce your risk for low blood sugar.
- Eat regular meals and snacks to keep your blood glucose levels consistent.
- Staying on top of your diabetes symptoms can be easy if you have the right information and supplies.

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