

# What is Diabetes?

Understanding more about *why* and *how* can help you really succeed with your treatment.



If you or someone you know has diabetes, you're not alone. Millions of people have diabetes. Diabetes cannot yet be cured. But it can be managed.

## The most common types of diabetes are type 1 and type 2

### Type 1

In **type 1 diabetes**, the body makes little or no insulin, due to an immune system response that destroys insulin-producing cells. So people with type 1 diabetes must take insulin every day. Type 1 diabetes usually occurs in children and young adults, but it can also appear in older adults.

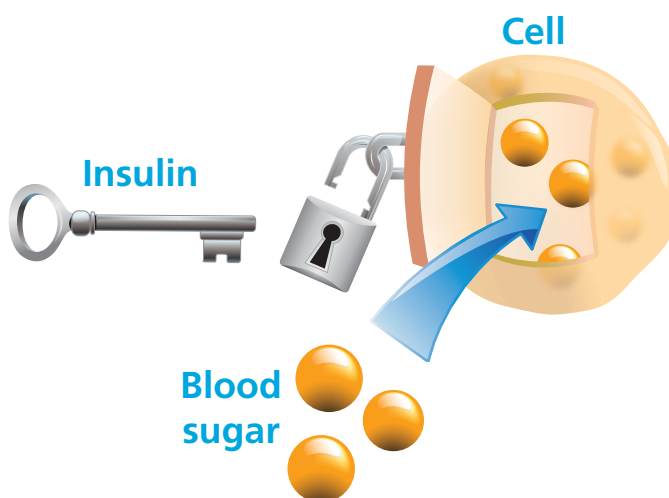
### Type 2

In **type 2 diabetes**, your body does not respond to and use insulin as well as it should. Or it may not make enough insulin. Most people with diabetes have type 2. Some risk factors for this kind of diabetes include older age, having overweight or obesity, family history, and having certain ethnic backgrounds.

## Understanding diabetes

Diabetes is a condition in which the body doesn't make or use insulin correctly.

- When you eat, some of your food is broken down into glucose (a type of sugar). Glucose travels in your blood to all your body's cells. Your cells need glucose for energy
- The pancreas, an organ near your stomach, contains beta cells that release a hormone called insulin
- Insulin helps move the glucose from your blood into your cells. Insulin is like a key that unlocks the doors of your cells so that glucose can get in and be used as a source of energy. Without insulin, extra glucose can't get into the cells and it stays in the blood



## In people with diabetes:

- Your pancreas makes little or no insulin, or
- Your body does not respond to and use insulin in the way that it should. This is called insulin resistance



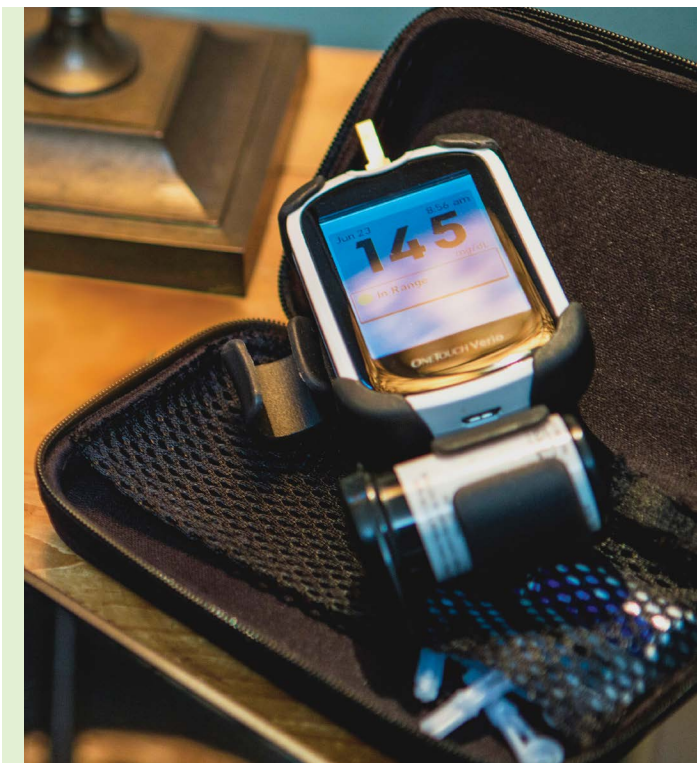
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## Checking your blood glucose (blood sugar)

Checking your blood glucose—or blood sugar—yourself can be an important part of a diabetes care plan. Checking often will tell you:

- If your insulin or other diabetes medicine is working
- How physical activity, the foods you eat, and stress affect your blood glucose

You'll usually feel better and have more energy when your blood glucose stays at or near your goal. Managing your blood glucose can also reduce your risk of developing problems from diabetes.



## Knowing your A1C

The A1C test measures your estimated average blood glucose level over approximately 3 months. It's like a "memory" of your blood glucose levels. It shows how well you're controlling your levels over time.

Two other blood glucose measurements contribute to your A1C:

- FPG is your fasting plasma glucose. This is your blood glucose number when you have been fasting (not eating) for at least 8 hours
- PPG is your postprandial plasma glucose. This is your after-meal blood glucose level, which you check about 1 to 2 hours after you start eating. It measures the blood glucose spikes that happen after you eat

Both your FPG and your PPG should be at their target goals in order for your A1C to be at goal.

Here is how A1C relates to the estimated average blood glucose level:

| A1C levels | Average blood glucose (blood sugar) |
|------------|-------------------------------------|
| 5%         | 97 mg/dL                            |
| 6%         | 126 mg/dL                           |
| 7%         | 154 mg/dL                           |
| 8%         | 183 mg/dL                           |
| 9%         | 212 mg/dL                           |
| 10%        | 240 mg/dL                           |
| 11%        | 269 mg/dL                           |
| 12%        | 298 mg/dL                           |

Adapted from the American Diabetes Association. Standards of care in diabetes—2024. *Diabetes Care*. 2024;47(suppl 1):S1-S314.



## It is recommended that you get an A1C test:

- At least 2 times a year if your blood glucose levels are at your goal
- 4 times a year if you're not meeting your goals or if your treatment has changed

According to the American Diabetes Association, lowering your A1C to below 7% may reduce your risk of some diabetes-related problems, like problems with your nerves, eyes, and kidneys. Your health care provider will tell you what your personal A1C goal should be.

Talk with your diabetes care team about your A1C goal and write it here: \_\_\_\_\_

## When to check your blood glucose

You and your diabetes care team will decide when and how often you should check your blood glucose. Here are some times when you may want to check:

- At bedtime and when you wake up, to see if your blood glucose is staying under control while you're asleep
- Before meals or large snacks, to know what your blood glucose is before you eat
- 1 to 2 hours after starting a meal, to see how the food you eat affects your blood glucose
- Before and within minutes after physical activity, to see how being active affects your blood glucose
- Anytime you think your blood glucose might be low

Depending on the medicine you're taking, your health care professional may want you to check your blood glucose more or less often. Talk with him or her about how often and when you should be checking.

## How to check your blood glucose and keep track of your numbers

Many different kinds of blood glucose meters are available today. Your diabetes care team can help you choose a meter and show you how to use it.

It's important to write down your blood glucose levels so that you can keep track of what makes them go up or down. Some meters also keep a log of your past blood glucose levels. You can also ask your diabetes care team for a copy of the **NovoCare®** booklet **Staying on track**. Or go to [www.NovoCare.com](http://www.NovoCare.com) for an online tracker.



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## Managing type 2 diabetes

As part of your diabetes care plan, your care team may ask you to take different diabetes medicines such as pills or other non-insulin medicines.

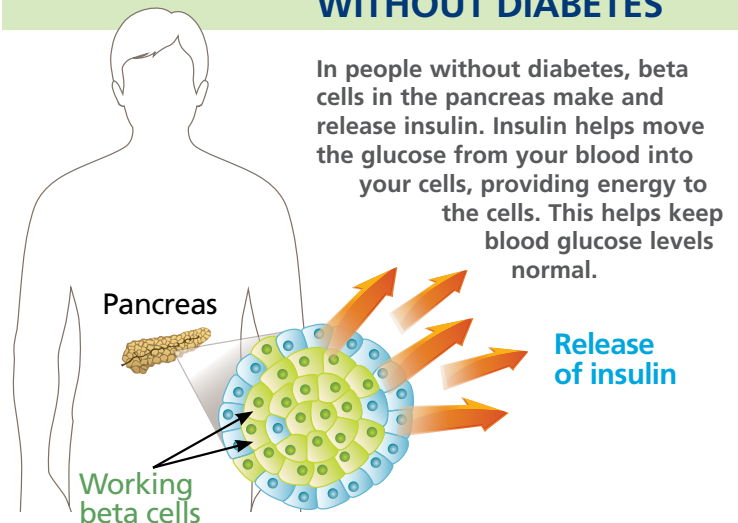
Your diabetes care team will help you develop a diabetes care plan that is right for you. In addition to taking medicine, you should aim for a balanced and healthy eating plan, making physical activity part of your daily routine, getting to and staying at your target weight, and tracking your blood glucose levels.

It is now clear that type 2 diabetes will continue to change over time:

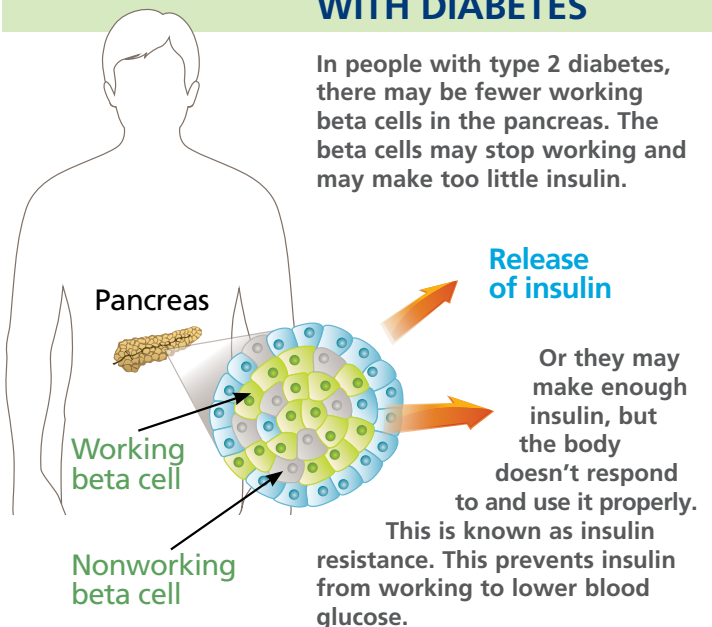
- The beta cells may stop working
- As the number or function of beta cells goes down, the pancreas may make less insulin
- The beta cells might make insulin, but the body doesn't respond to and use it properly. The beta cells may then help by making extra insulin. But as time goes on, the pancreas can't make enough insulin
- As your diabetes changes, your treatment may also need to change over time

To avoid problems related to diabetes, it is important to keep your blood glucose levels as close to your goal as possible. You can learn more at [www.NovoCare.com](http://www.NovoCare.com). Or ask your diabetes care team for more information. And talk with them about which diabetes treatment is right for you.

### WITHOUT DIABETES



### WITH DIABETES



Visit [www.NovoCare.com](http://www.NovoCare.com) for additional resources and helpful information! Point your smartphone camera at the QR code for quick access to the website on your phone.



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