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Wolters Kluwer

Patient education: Preventing type 2 diabetes (The Basics)

[Written by the doctors and editors at UpToDate](#)

Can type 2 diabetes be prevented?

Yes! Studies show that people who are at risk can prevent type 2 diabetes by:

- Losing weight (if they are overweight)
- Being active
- Improving the way they eat
- Taking certain medicines (most often one called [metformin](#))

There's some evidence that quitting smoking also lowers the risk of developing type 2 diabetes, but scientists need to do more studies to be sure. Even so, there are plenty of good reasons to quit. Quitting smoking lowers your risk of stroke, heart disease, and lots of other problems.

What increases my risk for type 2 diabetes?

There are a few factors that can increase your risk of diabetes, including:

- Being overweight or obese, especially if you carry your extra weight in your belly (as opposed to in your hips, thighs, and butt)
- Not doing enough physical activity
- Smoking
- Having a family history of diabetes
- Having diabetes during pregnancy, called "gestational diabetes" (if you are a woman)

Plus, Asian, Latino, or black people are more likely to get diabetes than white people.

Are there tests that can find people who are at risk?

Yes. There are 3 different tests that can help doctors tell whether a person might develop type 2 diabetes. All 3 tests measure blood sugar in different ways. "Blood glucose" is another name for blood sugar.

Even though these tests can help predict diabetes, they are not appropriate for everyone. Your doctor or nurse will decide if 1 of these tests is right for you. Often, people who get tested are overweight and have another risk factor for diabetes. Examples of risk factors include having a history of diabetes during pregnancy or a family history of diabetes.

If a blood test shows that a person's blood sugar is higher than normal but not high enough to be called diabetes, doctors call it "pre-diabetes." People with pre-diabetes are at high risk of developing diabetes.

- **Fasting glucose test** – This test measures your blood sugar when you have not had anything to eat or drink (except water) for 8 hours. People with pre-diabetes have a fasting glucose between 100 and 125 ([table 1](#)).
- **Glucose tolerance test** – For this test you do not eat or drink anything for 8 to 12 hours. But then, as part of the test, you have a sugary drink. Two hours later, a doctor or nurse takes a blood sample to see how high your blood sugar got. People with prediabetes have glucose tolerance results between 140 and 199 ([table 1](#)).
- **Hemoglobin A1C test (also called HbA1C or A1C)** – For this test it does not matter whether you eat beforehand. It is a blood test that shows what your average blood sugar level has been for the past 2 to 3 months. People with pre-diabetes have A1C levels between 5.7 and 6.4.

What should I do if I have pre-diabetes?

If you have pre-diabetes, make lifestyle changes to reduce the chance that you will get full-blown diabetes. Here's what you should do:

- **Lose weight** – Losing 5 to 10 percent of your body weight can lower your risk a lot. If you weigh 200 pounds, that means you should lose 10 to 20 pounds. If you weigh 150 pounds, that means you should lose 7 to 15 pounds.
- **Eat right** – Choose a diet rich in fruits, vegetables, and low-fat dairy products, but low in meats, sweets, and refined grains. Stay away from sweet drinks, like soda and juice.

- **Be active for 30 minutes a day** – You don't have to go to the gym or break a sweat to get a benefit. Walking, gardening, and dancing are all activities that can help.
- **Quit smoking** – If you smoke, ask your doctor or nurse for advice on how to quit. People are much more likely to succeed if they have help and get medicines to help them quit.

Take your medicines

If your doctor or nurse prescribed any medicines, take them every day, as directed. That goes for medicines to prevent diabetes, and for ones to lower blood pressure or cholesterol. People with pre-diabetes have a higher-than-average risk of heart attacks, strokes, and other problems, so those medicines are important.

More on this topic

[Patient education: Hemoglobin A1C tests \(The Basics\)](#)

[Patient education: Type 2 diabetes \(The Basics\)](#)

[Patient education: The ABCs of diabetes \(The Basics\)](#)

[Patient education: Treatment for type 2 diabetes \(The Basics\)](#)

[Patient education: Weight loss treatments \(The Basics\)](#)

[Patient education: Diet and health \(The Basics\)](#)

[Patient education: Exercise \(The Basics\)](#)

[Patient education: Quitting smoking \(The Basics\)](#)

[Patient education: Health risks of obesity \(The Basics\)](#)

[Patient education: Type 2 diabetes and diet \(Beyond the Basics\)](#)

[Patient education: Type 2 diabetes: Overview \(Beyond the Basics\)](#)

[Patient education: Type 2 diabetes: Treatment \(Beyond the Basics\)](#)

[Patient education: Type 2 diabetes: Alcohol, exercise, and medical care \(Beyond the Basics\)](#)

All topics are updated as new evidence becomes available and our [peer review process](#) is complete.

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GRAPHICS

Diabetes screening tests

	Glucose level
Fasting glucose	
Normal	70 to 99
Pre-diabetes	100 to 125
Diabetes	126 or higher on at least 2 tests
Glucose tolerance	
Normal	Below 140
Pre-diabetes	140 to 199
Diabetes	200 or higher on at least 2 tests
	A1C percent
A1C	
Normal	Below 5.7
Pre-diabetes	5.7 to 6.4
Diabetes	6.5 or higher on at least 2 tests

Pre-diabetes is a term doctor or nurses use as a warning. People with pre-diabetes do not yet have diabetes, but they are at increased risk of getting it.

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