

Patient information from BMJ

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Pre-diabetes

If you have pre-diabetes it means that your blood sugar level is too high, but not high enough to be classed as diabetes.

Pre-diabetes can easily develop into type 2 diabetes. But if you make changes to your lifestyle it can usually be avoided.

What is pre-diabetes?

Pre-diabetes is a useful term for doctors when talking with people who are at risk of getting type 2 diabetes.

Type 2 diabetes is a serious long-term condition. People with type 2 diabetes have very high levels of glucose (sugar) in their blood. This can cause:

- damage to the small blood vessels in the eyes, kidneys, and feet. This can lead to sight problems, kidney disease, and foot amputations
- damage to large blood vessels. This can lead to problems such as heart attacks and strokes. Having type 2 diabetes greatly increases your chances of dying from heart disease.

If you have pre-diabetes your blood sugar level is higher than it should be, but it's not high enough to be classed as diabetes.

While this is good news in one way, it's also a warning: you could be on the way to having diabetes, and it's a good idea to act now to prevent it.

And it can be done. Research suggests that type 2 diabetes can be prevented in more than 80 in 100 people.

Blood sugar is not the only way of predicting someone's chance of getting type 2 diabetes. Other things that make diabetes more likely include:

- being very overweight (obese)
- eating a diet that's high in starchy or sugary foods and low in fresh fruits and vegetables
- being older

Pre-diabetes

- having close family members with diabetes, and
- being inactive.

What are the symptoms?

Pre-diabetes doesn't usually have any symptoms. But, rarely, raised blood sugar can cause patches of darkened skin in the armpits and neck, and around joints, such as the knees, knuckles, and elbows.

What treatments work?

If you have raised blood sugar, the main things that can help you avoid diabetes are:

- changing your lifestyle, and
- taking prescription medicines that lower your blood sugar.

Changing your lifestyle

If we're honest, most of us know that we aren't always active enough and don't eat as healthily as we should. For many people, this doesn't cause obvious problems.

But if you have blood sugar at pre-diabetes levels, an unhealthy lifestyle could lead to serious health problems.

The main lifestyle changes that can prevent diabetes are:

- changing your diet
- being more active, and
- losing weight if you are overweight. The first two changes should help you achieve this one.

Being overweight is a major cause of type 2 diabetes. The good news is that most people don't have to lose a lot of weight to reduce their chances of getting diabetes. Losing between one twentieth and one tenth of your body weight can make a big difference.

To lose this amount of weight you will probably need to:

- eat a bit less
- make some changes to what you eat and drink, and
- be more active.

It might help to make a plan. For example, you might want to talk to your doctor or practice nurse about what you need to do, and how to stick to it.

But it can be hard. Most people struggle to make healthy choices all the time. The important thing is to do your best.

If your blood sugar is too high, the changes you will probably need to make to your diet include:

Pre-diabetes

- avoiding starchy foods, such as potatoes, white rice, white bread, and white pasta. If you find it hard to cut back on these foods, try eating brown rice and wholemeal bread and pasta instead
- avoiding foods that contain refined sugar, such as sweets, biscuits, and cakes
- avoiding sugary drinks. You might also need to cut down on alcoholic drinks
- eating more fresh fruits and vegetables, and
- avoiding processed foods.

Being active is important in preventing diabetes for two reasons:

- it lowers your blood sugar, and
- it helps you to lose weight.

Most people find that it's easier to stay active when they do a type of exercise that they enjoy. So if, for example, going to the gym isn't for you, there are plenty of other ways to exercise, including walking, cycling, swimming, jogging, and playing sports.

If you haven't been very active for a long time, or if you are older, it's a good idea to start slowly. It might help to talk to your doctor about what type of exercise would suit you best.

But if you're younger and don't have any health problems that stop you from exercising, you will need to gradually build up the amount you exercise to the point where it will make a real difference. This might mean going for long walks or doing an activity that works up a sweat, several times a week.

Medications

The medications that can help with pre-diabetes are some of the same ones that are used to treat diabetes itself. They work by reducing the amount of sugar in your blood.

If you have raised blood sugar that could lead to diabetes, your doctor might suggest that you take medication to help. But he or she is more likely to suggest that making changes to your lifestyle is more important.

This is because research suggests that, while medications can help reduce blood sugar, losing weight and other changes to your lifestyle are better protection against diabetes.

Monitoring your blood sugar

Your doctor will probably also suggest that you have your blood sugar checked regularly. You might hear this called an HbA1c test.

You might be able to use a kit at home to check your blood sugar with a finger-prick test. Your doctor can explain the options and how they work.

What will happen?

It's not possible to say what will happen to you as an individual. But we know that, in most people with raised blood sugar classed as pre-diabetes, type 2 diabetes itself can be prevented.

Pre-diabetes

Preventing diabetes means preventing the complications that can cause serious health problems and death.

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