

Do You Have Pre-diabetes?

Find out if you do and how you can prevent this silent killer. **BY AZLINDA SAID**

OUR EXPERTS



Dr Daniel Wai, consultant from Parkway East Hospital's Diabetes, Endocrine and Endovascular Centre



Dr Derek Koh, head of the Lifestyle Centre at Thomson Medical

What Is Pre-diabetes?

This is when your blood sugar level is higher than normal, but not high enough to indicate diabetes. "Being pre-diabetic means that your body is showing signs of not handling the sugar load very well. It's the grey zone before you develop full-fledged diabetes," says Dr Derek Koh, head of the Lifestyle Centre at Thomson Medical.

Normally, our bodies break down carbohydrates from the food we eat and convert it into glucose, a type of sugar used by the body as a main source of energy. That's why our blood sugar levels usually rise after a meal. The pancreas produces insulin to help the glucose enter our cells and be burnt as energy. Excess sugar is stored as fat in fat cells, liver cells and muscles.

An oral glucose tolerance test can confirm pre-diabetes. Patients fast for eight hours before downing 100mg of sugared water. Two hours later, they'll take a blood sugar test.

"Normally, your blood sugar level will go up after taking that drink, but it will go down to 140 and below within two hours. If your body can't bring it down to 140 and below, you have pre-diabetes. If your blood sugar level shoots up to 200 and above, you're diabetic," explains Dr Koh.

A National Health Survey in 2010 showed that 4.4 per cent of adult Singaporeans have pre-diabetes. Dr Koh says about a third of pre-diabetics who don't do anything to correct their condition become diabetics within five years.

The risk for pre-diabetes hikes with age and hits 22.6 per cent of people between 60 and 69 years old, says Dr Daniel Wai, a consultant from Parkway East Hospital's Diabetes Endocrine and Endovascular Centre. "Pre-diabetics have a 40 per cent chance of developing heart disease,

How to Avoid Pre-diabetes:

- 1 Avoid refined carbohydrates like white bread. Go for wholemeal bread and brown rice instead.
- 2 Cut down on soft drinks.
- 3 Exercise five times a week for 30min each time. Be more active by taking the stairs more often and walking if the distance is not too far.
- 4 Get your full eight hours of sleep.
- 5 Avoid snacking late at night.



stroke and other complications related to diabetes, like diabetic eye disease, diabetic nerve problems and kidney problems," he cautions.

What Causes Pre-diabetes?

Family history, for one, along with obesity and a sedentary lifestyle, says Dr Wai. "Since pre-diabetes has no physical symptoms, many people realise that they have the condition only too late, when it has already developed into full-fledged diabetes," he points out.

Regular medical check-ups are the only way to determine if you are pre-diabetic, and this is especially important if you are obese and have a family history of the disease. "If you have fatty liver or high levels of triglycerides, you may be prone to pre-diabetes as well," adds Dr Koh.

Pre-diabetes usually affects adults and could lead to type two diabetes - this is when the body produces insulin but it is not enough or the

body develops insulin resistance, a condition when the body does not use the hormone properly.

"If you're pre-diabetic and your condition isn't corrected over the years, your pancreas will eventually run out of insulin and you may require insulin jabs," Dr Koh warns.

Women who suffered from gestational diabetes during pregnancy are also at risk of pre-diabetes in the future. "Excessive weight gain during pregnancy may elevate blood sugar levels, which usually return to normal post-pregnancy. But you'll be more prone to pre-diabetes and diabetes in future," says Dr Koh.

Managing the Condition

Losing weight is key. Many pre-diabetics don't become diabetic if they manage their condition well.

Dr Koh explains why: "Weight loss will make all your cells more sensitive to the insulin being produced and allow your pancreas to do its job. If a diabetic, who weighed over 100kg but has shed 20 per cent of his body weight, can get rid of his diabetic status through the huge weight loss, the same goes for a pre-diabetic. So this condition can be controlled, for sure."

Pre-diabetics may be prescribed medication and supplements like chromium and vitamin D to lower their blood sugar and reduce weight, says Dr Koh.

But ultimately, a lifestyle change is the best way to stave off the condition, as medication is never a permanent fix, stresses Dr Wai. "Once patients stop taking the medicine, the pre-diabetics will come back. So live a healthier life now."

Dr Koh agrees: "Let's say your parents were overweight and had diabetes. You'll have the genetic tendency to turn out like them too. But if you control your weight very well and stick to a healthy diet, you can probably avoid the same fate." **SH**