

Pre-diabetes

know your chances, reduce your risk

One in 10 Australians has pre-diabetes – but he or she doesn't know it. Happily, this condition is often reversible. Here's what you need to know to reduce your risk.

Many people are totally unaware that they've developed pre-diabetes, a condition that raises the risk of cardiovascular disease, which can lead to heart attack or stroke.

Even more troubling, if these people don't seek treatment, they're likely to develop type 2 diabetes in five to 10 years.

It's essential to take steps to reduce your pre-diabetes risk, because this condition is reversible – but diabetes is not.

Q What is pre-diabetes?

Like diabetes, pre-diabetes occurs when the body's response to insulin is impaired, a condition called insulin resistance. Levels of blood glucose are higher than normal in pre-diabetes, and this indicates that the body is failing to properly process glucose into energy. Despite this fault, these readings aren't yet high enough for a diagnosis of type 2 diabetes.

Approximately 2.45 million Australians are already walking around with pre-diabetes.

In addition, 1.16 million Australians are living with diabetes. At this rate, experts anticipate that 2.65 million of us will be suffering from fully developed diabetes within the next five years.

Q How do I know if I have it?

Here's the problem: Pre-diabetes doesn't usually display obvious symptoms, making it difficult for people to realise they already have it. Still, several warning signs can indicate whether you should have a blood test for this precursor to full-blown diabetes.

The risk factors for pre-diabetes are the same as those for type 2 diabetes. (See box opposite to check your risk.) If you have any of these factors, you should see your doctor for regular tests.

The oral glucose-tolerance test (OGTT) involves your providing a blood sample before sipping a sweet drink containing 75g of glucose, then providing a second sample two hours later. The test results reveal whether you have

normal glucose tolerance, pre-diabetes or diabetes.

If you receive a diagnosis of pre-diabetes, you should repeat this test every one to two years to check the condition hasn't developed into diabetes.

Lifestyle changes are twice as effective as medication at reducing your diabetes risk.

Q Can I reduce my pre-diabetes risk?

Of course, you can't change your actual genes, but there is some good news: If a blood test discloses that you do have pre-diabetes, adjusting your lifestyle can go a long way towards preventing or delaying the onset of type 2 diabetes.

In 2011, two large studies from the US and Finland showed that people with pre-diabetes who make healthy lifestyle changes can lower their diabetes risk by an impressive 58 per cent. What's more, the US study showed that lifestyle changes were twice as effective as medication. Just as important, if you don't have the condition, but are at risk, then the same lifestyle tweaks are likely to reduce your risk of developing pre-diabetes in the first place. >



Are you at risk of pre-diabetes?

If you agree with one or more of the following statements, you have a higher risk of developing pre-diabetes. If so, it's important to discuss your concerns with your doctor.

I have a family history of type 2 diabetes

I have high blood pressure

I have high triglycerides as well as low levels of high-density lipoprotein (HDL), or 'good' cholesterol

I have heart disease or have suffered a heart attack

I am overweight, particularly around the middle

I am over 55

I am of Chinese, Indian or Pacific Islander heritage

I am of Aboriginal or Torres Strait Islander descent

I have polycystic-ovary syndrome (PCOS)

I had diabetes during pregnancy or gave birth to a baby weighing more than 4.5kg

I don't exercise regularly or do much physical activity throughout the day



Dr Kate Marsh, PhD, is an Advanced Accredited Practising Dietitian and Credentialed Diabetes Educator who's living with type 1 diabetes.

Lower your diabetes risk



Change the way you eat

Move more

Regular physical activity can significantly slash your diabetes risk.

When a research team at the Harvard School of Public Health conducted a meta-analysis of 10 studies, they found that people who regularly exercised at a moderate intensity had a 31 per cent reduction in their risk of type 2 diabetes, compared with those who were sedentary. And people who walked briskly for at least 2.5 hours every week had a 30 per cent lower chance of developing diabetes than did those who hardly walked at all. Interestingly, these findings were not only similar for both men and women, but also independent of subjects' weight.

Sit less often

Finding ways to get off the couch and out of your chair can also help.

Australian studies link watching television and being sedentary with an increased risk of high blood-glucose levels. However, two recent studies have found that interrupting prolonged periods of sitting (even for a minute or two every 20 to 30 minutes) can improve insulin

sensitivity and glucose tolerance. This goes to show that although too much sitting is bad for our health, making small changes can make a big difference!

Whittle your waistline

Carrying excess weight, particularly around the middle, can see diabetes risk skyrocket.

Women who have a waist measurement of more than 80cm, and men whose middles measure more than 94cm, are at much higher risk. The good news? Losing just 5 to 10 per cent of your weight – with the help of healthy lifestyle changes – can cut your risk of developing diabetes by up to 60 per cent.

Quit smoking

We all know that smoking can heighten the risks of heart disease and cancer.

But most people don't realise that smoking can also elevate your diabetes risk. Studies show that smokers are more insulin resistant and have a higher risk of developing type 2 diabetes. A study that compared more than 4000 male smokers with

men who'd never smoked showed that those who were puffing up to 20 cigarettes a day had doubled their diabetes risk, and that those who lit up 20 cigarettes or more a day had 2.4 times the risk.

Get a good night's sleep

Several studies show that insufficient sleep worsens insulin resistance and that both sleep quantity and quality affect diabetes risk.

In 2010, a meta-analysis of 10 separate studies established that sleeping for fewer than five to six hours a night raises the risk of diabetes by 28 per cent. Surprisingly, the same analysis also showed that sleeping for more than eight to nine hours a night ramps up the risk by almost 50 per cent. Researchers concluded that difficulties in getting to sleep and difficulties in maintaining sleep resulted in a 57 per cent and 84 per cent rise in diabetes risk, respectively.

Maintain a healthy body weight

Eating a balanced diet plays an important role in reducing your risk, as do the types of food you're eating.

Fight weight gain by eating a diet that's low in kilojoules and total fat, specifically saturated fat. Matching the amount of food you eat with the amount of energy you expend is key to maintaining a healthy weight.

(See the recommended daily intakes on p96. And for low-fat, low-kilojoule recipes, see 'Low Fat Feasts' and 'Low Cost Lunches' on p44 and p58, respectively.)

TIP Fill up on vegetables, salad and high-fibre wholegrains, and limit energy-dense foods and drinks, such as cakes, biscuits, chips, lollies and soft drinks.

Eat like you live in the Mediterranean

Recent findings show you can reduce your diabetes risk

by up to 52 per cent if you eat a diet high in vegetables, oily fish (such as tuna and salmon), grains, nuts and olive oil, and

low in red meat, dairy foods, and sugary cakes and sweets.

TIP Eat 150g of oily fish two to three times a week for its omega-3 fats, which protect your heart.

Limit your intake of red meat

Choose lean cuts and trim the visible white fat.

Avoid processed meats, such as bacon, salami and sausages, which are high in salt and saturated

fat. Experts link these kinds of foods with a higher diabetes risk. **TIP** Introduce meat-free Monday and replace red meat with plant proteins, including chickpeas, lentils, beans and tofu.

Base your meals around leafy greens and vegies so they make up at least half of your plate. And vary the colours of your vegies to gain all of their different health benefits.

TIP Pop a new vegetable into your shopping trolley each week, then add it to stir-fries and curries.

Snack on nuts

Eat 30g of nuts every day.

Large studies show that women who eat roughly this amount of

Follow a Mediterranean-style diet, and you'll lower your risk of diabetes by up to 52 per cent



nuts five or more times a week enjoy a 27 per cent lower risk of diabetes, compared with women who rarely eat nuts.

TIP Measure out handful-size serves into small zip-lock bags for an easy-to-grab snack when you're on the run. [hfg](#)

Take this test!

You can check your diabetes risk online with interactive diabetes-assessment tool AUSDRISK. Simply answer 10 questions based on the statements on p33, and you'll be able to calculate your risk of developing type 2 diabetes within the next five years. Go to health.gov.au/internet/main/publishing.nsf/Content/diabetesRiskAssessmentTool