



Compared to Caucasians, Asians develop borderline diabetes at an earlier age and a lower BMI, says Dr Goh Su Yen.

Turning back the clock on prediabetes

Losing weight and adopting healthy lifestyle habits can stop borderline diabetes from progressing to the full disease. *By Natalie Young*

DIABETES IN ITS INITIAL STAGES can be easily reversed. When blood sugar levels are elevated, but are not high enough to be classed as diabetes, losing weight and adopting a more active lifestyle can often stop borderline type 2 diabetes or prediabetes from advancing to the full disease.

Once type 2 diabetes is diagnosed, however, the disease can only be managed and not reversed. Type 2 diabetes is often tied to obesity and poor lifestyle habits.

“Lifestyle interventions such as increasing physical activity and modifying eating habits have been shown to reduce the progression from prediabetes to diabetes by about 35 to 50 per cent over a decade,” said Dr Goh Su-Yen,

Senior Consultant and Head, Department of Endocrinology, Singapore General Hospital (SGH).

“(Making these changes) is the most effective, and cheapest, way of reversing pre-diabetes,” she said.

In borderline diabetes, the insulin-producing cells in the pancreas struggle to make enough insulin to reduce the levels of sugar in the blood.

People with excess weight around the waist are most susceptible to developing both prediabetes and diabetes. When fat levels build up in the abdomen – around organs like the liver and pancreas – these cells turn “blind” to rising blood sugar levels. Paying attention to weight and body fat distribution is important.

Asians are prone to storing fat as they do not process excess dietary fat well. They also tend to have higher levels of body fat than Caucasians of the same weight. “We have found that Asians develop prediabetes at an earlier age and a lower BMI (body mass index, the standard measure of healthy body weight) than Caucasians,” said Dr Goh.

Trying to reverse prediabetes does not require drastic weight loss. Losing just 5-10 per cent of one’s body weight and maintaining a BMI within the healthy range (less than 23 kg/m²) can significantly reduce the risk of it progressing to diabetes.

One in three people with borderline diabetes are able to reverse the condition.

Prediabetes comes on without warning

Feeling tired, thirsty or urinating more than usual? These are signs that your blood sugar levels may be higher than normal. But few people with borderline diabetes will have these warning signals.

There are, however, other indications. People who are overweight, middle-aged, lead a sedentary lifestyle, have high blood pressure, LDL cholesterol or triglyceride levels, and a family history of diabetes, are more likely to develop the condition.

Prediabetes is diagnosed if the blood sugar level registers between 7.8 mmol/L and 11.0 mmol/L by the gold standard oral glucose tolerance test. The test involves taking a blood sample after overnight fasting, and a second sample two hours after consuming a sweet glucose drink.

Diabetes is diagnosed if the reading is more than 11.1 mmol/L. Normal blood glucose level is under 7.8 mmol/L.

People diagnosed with prediabetes should get their blood glucose level measured every six to 12 months. Those who have normal blood sugar levels but who have a family history of type 2 diabetes should undergo diabetes screening after the age of 40.

Another third avoid developing diabetes by remaining prediabetic. With these lifestyle changes, only a third of prediabetics go on to develop diabetes.

The key is to start slow and set achievable targets. Half an hour of exercise a day, five days a week, and making healthier meal choices can be beneficial.

Having the support of family and friends can also make sticking to these changes easier. Care and support are also available, if needed, at primary health care and specialist centres. For those needing greater support, there are specialist centres offering comprehensive lifestyle modification programmes targeting the reversal of prediabetes, said Dr Goh.

1 in 5

people in Singapore have prediabetes or diabetes*

1 in 2

heart attack cases also have diabetes**

2 in 3

new kidney failure cases are due to diabetes**

2 in 5

stroke cases also have diabetes**

Complications from diabetes lead to
1,500
amputations a year***