

FEATURE



BY SHERALYN TAY

ON A SUGAR LOW

It's the disease that despite the connotations of its name is not quite as sweet. Diabetes is in fact considered an 'epidemic' in many parts of the world and if not well managed, leads to debilitating conditions such as blindness, nerve damage and renal failure. LifeWise brings you the low down on diabetes – and how to manage and even pre-empt the condition.

Derived from the Greek word diabetes (to pass through) and the Latin word mellitus (sweet as honey), Diabetes Mellitus, commonly known as diabetes, is a condition in which the body cannot process sugar or glucose efficiently and turn it into energy, causing the sugars to build up in the bloodstream.

If the disease is due to the body's inability to produce insulin this condition is called Type 1 diabetes and typically affects those under 35-years-old. People with Type 1 diabetes require daily insulin injections to help the body use and store glucose.

A more common form of the disease is Type 2 diabetes, where the pancreas still produces some insulin but that is not enough to overcome the body's resistance to insulin action. The risk of type 2 diabetes increases with age and obesity and with certain ethnic groups. In fact, being obese increases the risk of diabetes by about seven times.

According to Dr Winston Kon, a Consultant at the Department of Endocrinology at Tan Tock Seng Hospital (TTSH), Type 2 diabetes affects about 8.9 per cent of adult men and 7.6 per cent of adult women in Singapore. ❖

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Within the body, extended periods of high sugar levels in the blood affect the blood vessels in the body, particularly the delicate vessels in the eyes, nerves, kidneys and heart – causing life-threatening and debilitating conditions. In Singapore, the disease is the eighth most common cause of death. Diabetes-related disease such as diabetic retinopathy is the leading cause of blindness in Singapore. Diabetes-related gangrene is also responsible for an average of two limb amputations a day here. According to Dr Ng Tsun Gun, Consultant, Renal Medicine Unit, Department of General Medicine at TTSH, more than half the patients with end-stage renal failure requiring dialysis developed the condition due to diabetes.

The rates of diabetes in Singapore have risen over the years. In 1984, health statistics put the incidence of diabetes at 4.7 per cent. In 1992, this had almost doubled to 8.6 per cent and to 9 per cent in 1998. But heightened awareness of the disease has brought numbers down somewhat, Dr Kon noted as the incidence of diabetes dropped to 8.2 per cent in 2004. “This is very encouraging news; the improvement may have reflected increased awareness of the disease in the community.” Health promotion measures aimed at preventing disease onset through lifestyle changes, notably in diet and physical activity, may have also taken some effect, he added, “Notably, there has been a rising proportion of adults aged 18 to 69 years who exercised regularly, as this increased significantly from 16.8 per cent in 1998 to 24.9 per cent in 2004.”



SIGNS OF DIABETES

FREQUENT URINATION AND THIRST

The lack or inability to produce insulin causes excess glucose in the blood, overwhelming the kidneys and causing them to draw extra water out of the blood to dilute the glucose. This keeps your bladder full and causes dehydration.

WEAKNESS AND FATIGUE

The body derives its fuel from glucose. But insulin resistance means your body can no longer process the glucose in the blood, causing the cells to become energy starved.

TINGLING OR NUMBNESS

Persistently high glucose in the blood damages the nerves, causing neuropathy. Some classic signs are tingling in the hands, legs or feet.

OTHER SIGNS

Excess glucose in the body can also cause blurred vision, dry itchy skin, frequent infections or frequent cuts and bruises that take a long time to heal.

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TACKLING THE DIABETES SCOURGE

The most fundamental of diabetes management is a healthy lifestyle. As a chronic disease with no current cure, the risk of diabetes-related diseases can be mediated by simple adjustments to diet and activity levels. While advancements in medications in the last 15 years means patients have more choices in the types of medications, lifestyle efforts can go a longer way to maintain wellness. “It is very much a matter of attitude and discipline and to comply with dietary adjustments and treatment,” said Dr Kon. For example, keeping lower carbohydrate intake can improve sugar levels in the blood. “Hawker centres tend to serve large carbohydrate portions, especially for rice,” Dr Kon related, “but many patients report improved diabetes control just by moderating their carbohydrate intake.”

In fact, good sugar control through dietary adjustments and medications may even reduce or do away with the need for insulin. The dietician has a crucial role to play in this. Losing as little as 5 to 10 per cent of weight can also significantly reduce blood sugar – meaning that small steps towards a healthy weight can in fact have a great impact on diabetes outcome.

It also helps that this weight loss can also reduce cholesterol levels, blood pressure and the pressure placed on the joints such as the back, hips and knees. “In a significant proportion of patients with long-standing diabetes, insulin will ultimately be necessary,” said Dr Kon, but nevertheless, patients with diabetes mellitus can live healthy, active and rewarding lives.

The other bit of good news concerning diabetes is that it can be prevented. Keeping to a healthy Body Mass Index (BMI) and monitoring one’s blood sugar level can be key ways to stave off the disease. For example, the stage known as pre-diabetes – the condition whereby one’s blood sugar level is higher than normal, but does not meet the level where diabetes – can be reversed with healthy lifestyle changes. A weight reduction of 5 to 7 per cent in those who are obese may prevent the progression of pre-diabetes into diabetes.

“One can delay or prevent the onset of diabetes by adopting lifestyle changes in diet, do regular exercise and lose weight,” said Dr Kon. Early diagnosis and treatment also makes diabetes easier to treat. “This helps to prevent development of long-term complications such as retinal, nerve and kidney disease. If treated early, in the long run, it may prevent heart disease as well.” +