

Lifestyle/ Health & Wellness

World Diabetes Day 2021: trillion-dollar-a-year disease whose most common form is preventable if you exercise, eat a healthy diet and avoid weight gain

One in 10 adults has diabetes, mostly Type 2 that's preventable if you eat a healthy diet, exercise, watch your weight and be alert to pre-diabetes symptoms

Diabetes occurs when the body produces too little insulin, needed to process sugar. After scary symptoms, Monique Baronet learned she had Type 1 diabetes at 21

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Monique Baronet has lived with Type 1 diabetes, an autoimmune disease that's partly genetic, since she was 21. Most sufferers have Type 2 diabetes, which is preventable with exercise and a healthy weight and diet.

You probably know someone with this disease; you may even have it yourself: diabetes.

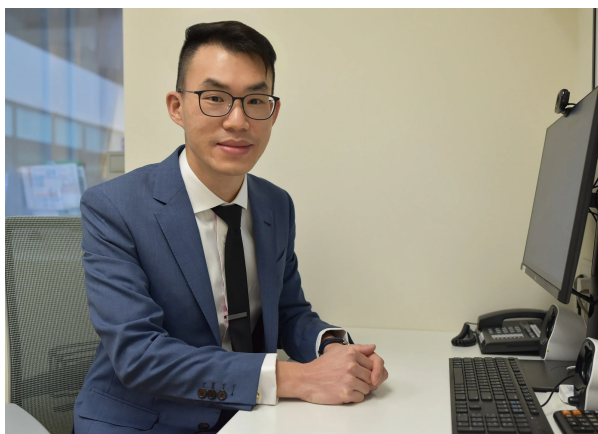
This remarkably, frighteningly common condition is a new kind of pandemic, affecting one in 10 adults worldwide. The International Diabetes Federation expects the number to rise 11 per cent by 2030.

Already it contributes hugely to global health costs: an estimated US\$966 billion this year.

In Hong Kong, [diabetes is a major cause of morbidity and mortality](#), and was the 10th most common cause of death in the city in 2020.

The US Centres for Disease Control describes diabetes as a chronic condition that affects how our bodies turn food into energy. What we consume is broken down into glucose (a simple sugar) and released into the bloodstream. The pancreas manages insulin, which regulates blood sugar levels.

If you have diabetes, this system is hijacked: either your body doesn't make enough insulin or cannot use that insulin effectively.



Dr Ivan Chow explains Type 1 diabetes occurs when the pancreas produces little or no insulin.

[There are several types of diabetes.](#) Speaking ahead of World Diabetes Day 2021 on November 14, Hong Kong family medicine specialist Dr Ivan Chow said Type 1 diabetes occurs when the pancreas produces little or no insulin – the hormone needed to enable sugar, or glucose, to enter cells to produce energy. This type accounts for around five to 10 per cent of diabetes in adults.

It is normally diagnosed at three major growth spurts of life, at ages seven, 14 and 21. It's a young people's disease, often has a genetic component and rarely affects people older than 30 for the first time.

[Type 2 diabetes](#) is far more common, affecting almost 90 per cent of sufferers. It is largely diet-related and develops over time. The body still produces some insulin, but it isn't effective enough.

The pancreas: how it works, why it matters and how to keep it healthy



21 Dec 2020

The pancreas can't keep up with the high blood sugar levels that usually result from poor diet and lack of exercise. Some people have "insulin resistance" – the pancreas produces insulin but the body doesn't recognise it.

There are other types of the illness, says Dr Francis Chow, chairman and managing director of the Hong Kong Diabetes Specialist Centre – but they affect smaller populations.

For example, pregnant women may have gestational diabetes; diabetes may develop from diseases of the pancreas, such as cystic fibrosis; and there is drug-induced diabetes.



In Hong Kong, diabetes was the 10th most common cause of death in 2020. Photo: Shutterstock

Francis Chow says Type 2 diabetes is a progressive disease, with a pre-diabetes phase that can present with a slew of symptoms including blurry vision, cold hands and feet, and itchy skin among others, as much as 10 years before a full-blown diabetes diagnosis.

How do you know you've got it?

Monique Baronet, a Kenyan spa and skin specialist, has lived with [Type 1 diabetes](#) since she was just shy of her 21st birthday. Her father's youngest sister developed Type 1 at the age of eight and died from diabetic complications at 56. Baronet, now 36, remembers that hers "came in stages".



The incidence of type 2 diabetes is increasing in many countries, coinciding with rising rates of obesity.

Dr Ivan Chow, Hong Kong family medicine specialist

First, she noticed she was urinating frequently and copiously: “It felt as if I was forever on the toilet.” Then came an insatiable thirst: “I was always, always thirsty; I started to panic if I didn’t have a litre of water at hand at all times.”

Then she began to eat much more than she normally would – but started to lose weight instead of gaining. She was eating five meals a day and drinking litres of Coca Cola and still losing. “I wasn’t able to absorb any of the glucose in my food, it was just running out in my urine.”

She remembers “the final straw ... when my periods stopped”. Her gynaecologist “knew straight away, from the symptoms I described, that I had diabetes”. Healthy sugar levels are normally between four and six; Baronet’s was 36. “He said he didn’t know how I wasn’t in a coma.”

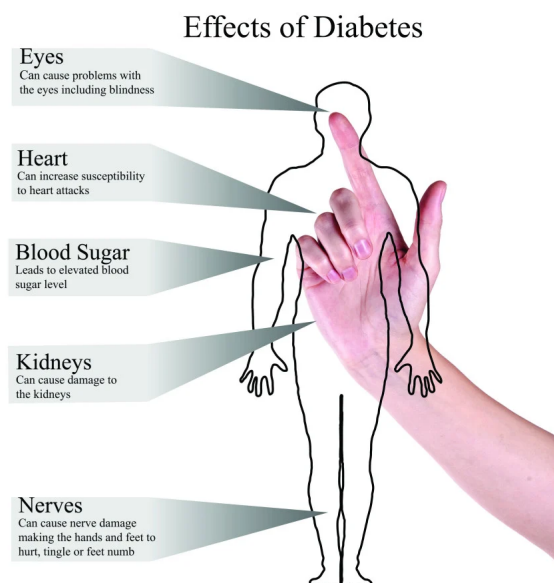


Dr Francis Chow is the chairman and managing director of the Hong Kong Diabetes Specialist Centre

Ivan Chow explains why this was a risk for Baronet.

“Diabetic ketoacidosis (DKA) is a serious condition that can lead to coma, even death. Normally, the body gets energy by breaking down sugar. When the body is unable to use sugar due to insulin deficiency, it burns fat as a source of energy, which produces ketones [a type of chemical].

“When ketones build up in the blood, they become toxic. It can happen to people with either type 1 or type 2 diabetes, but it is more likely to affect people with type 1.”



The effects of diabetes. Photo: Shutterstock

People with diabetes, whether Type 1 or 2, run the risk of serious side effects if their diagnoses are not managed: not just DKA but also heart attacks, strokes, kidney problems, blindness, loss of feeling in hands and feet, and potential amputation if diabetic neuropathy – nerve damage – develops.

Baronet’s weight loss – she shed 6kg rapidly – was one of the markers of her Type 1; Type 2 is all about weight gain. Ivan Chow elaborates: “The incidence of type 2 diabetes is increasing in many countries, coinciding with rising rates of obesity.” Teenagers are at the same risk as adults.

He says that, while sufferers of Type 1 diabetes cannot avoid their diagnosis “because Type 1 is an autoimmune disease”, we can all avoid Type 2 diabetes.

Asia’s lax attitude towards diabetes revealed in new surveys

27 Nov 2018



Both doctors urge people to watch their weight – and watch it throughout your life. Indeed, weight is such a significant contributor to this illness that people with Type 2 can come off medication if they get their weight under control with lifestyle management.

Being overweight or obese accounts for about 80 per cent of new cases of Type 2, and says Ivan Chow.

“The risk is a function of the age of onset and the duration of obesity, and weight gain during adult life. This demonstrates the importance of preventing weight gain in all ranges. The prevalence of overweight and obesity among children and adolescents aged five to 19 has risen dramatically from just four per cent in 1975 to just over 18 per cent in 2016, and a rise in diabetes prevalence is expected and is worrying.”



Newer, real-time continuous glucose monitoring devices are connected to users' smartphones and help manage the condition with greater accuracy and convenience. Photo: Shutterstock

A healthy diet and plenty of exercise are most important, he adds. “Lifestyle modifications can be very effective at avoiding or keeping diabetes under control and avoiding disease progression to long-term complications. Small changes can lead to improvements, including a decreased need for medication.”

Baronet manages her Type 1 diabetes with four daily injections that give her “more flexibility in daily life and the foods I can eat”.

“I started with two a day, but that meant an extremely strict regime. I had to inject at 12-hourly intervals, and in between I would have to really watch what I ate and bring my blood sugar down by exercise and drinking water. There was no room for social meals.



Glucose monitoring devices check a person's blood sugar level. Shutterstock

“I swam 50 lengths of a 20-metre [66 feet] pool every day. I had my diabetes completely under control within a year.”

She then developed thyrotoxicosis – excess thyroid hormone – which happens in 20 per cent of diabetics. She rapidly lost weight and spent another year trying to control both conditions. She was able to stop taking medicine for the thyroid, although she has to monitor it constantly.

Francis Chow is concerned about the rise in diabetes cases, especially as one in five new cases occurs in people under 40. “One in six Hong Kong diabetics have rapid decline in renal [kidney] function – every year there are more than 1,200 new dialysis patients – 60 per cent due to diabetes,” he adds.

47pc in China have diabetes or are likely to suffer from it, study finds

20 Jul 2018



There is active research into preventing Type 1 diabetes and new ideas on smart insulin and even artificial pancreases, for example. A weekly extra-long-lasting insulin injection that may minimise the number of injections and reduce the risk of hypoglycaemia (low blood sugar) could be available within the next two years, he adds.

Ivan Chow says [better blood sugar monitoring](#) is another positive advancement, including real-time continuous glucose monitoring devices which are connected to users' smartphones and help manage the condition with greater accuracy and convenience – no blood drop required.



Pregnant women can develop gestational diabetes. Photo: Shutterstock

Living with Type 1 diabetes

If you or a young member of your family is diagnosed with Type 1 diabetes, Baronet gives the following advice.

“Take time to understand your body and how it works with diabetes, get control of your sugar levels and your weight early on and maintain it. It is so easy to forget about the long-term side effects when you are young and feel well.



Some people with diabetes need to inject themselves with insulin. Photo: Shutterstock

“Diabetes is a disease that some career paths do not accept; for instance, I thought about working on a cruise ship but they wouldn’t consider me with my condition. But don’t let that stop you finding a different and often more satisfying career path. It is a manageable disease but do just that, manage it, be selfish for your own health.”

Baronet says her Type 1 diabetes “is a constant reminder to try and live a healthy lifestyle”. She eats well, she exercises and she is always mindful of her immunity. “I hope this is enough to enjoy a life without any complications in the future.”

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