

DIABETES EXPLAINED



Diabetes explained

Diabetes is a serious, life-long health condition that occurs when the body cannot regulate the amount of glucose (sugar) in the blood over a long time. The amount of sugar in our blood stream is regulated by a hormone, insulin, which is produced by an organ called the pancreas.

After we eat, our body begins to digest the food by breaking down carbohydrates into glucose. Insulin is released to remove glucose from the blood and transport it to cells where it is used for energy. Insulin also controls the production of glucose by the liver and turns off production when our blood glucose levels are raised. Too much insulin in our blood can be damaging to our kidneys, eyes and brain, so our body works quickly to absorb the glucose.

Normally, the body produces enough insulin to keep our blood glucose levels stable, but people with diabetes cannot regulate their blood glucose levels.

What you need to know about diabetes

There are two types of diabetes:

Type 1 diabetes: Usually starts in childhood and is more common among people under 30. This type of diabetes normally happens quite suddenly. It is caused by an inability to produce enough insulin because the body's own immune system attacks and destroys the cells in the pancreas that produce the hormone.

Type 2 diabetes: Usually develops in middle-aged people. It begins gradually and is caused mainly by lifestyle risk factors such as poor diet, weight gain and a lack of exercise. The body becomes unresponsive to insulin because there too much of the hormone is released over time. This leads to poor absorption of glucose from the blood stream. If detected early enough, when the first symptoms start, type 2 diabetes can be treated by managing certain lifestyle factors.

If you have any of these symptoms, consult your healthcare professional immediately:

- Always tired
- Always hungry
- Very thirsty
- Urinate often
- Blurred vision
- Losing weight without trying to
- Frequent infections and wounds that won't heal
- Tingling sensation in the hands and feet.

There are around 2.3 million people with diabetes in South Africa. Type 2 diabetes is one of the fastest growing conditions of the century. In the next 15 years, diabetes is set to increase from affecting 5.5% to 15% of people. Being overweight or obese is the single biggest risk factor for type 2 diabetes. Poor lifestyle habits often trigger an underlying genetic predisposition to the condition.

What happens if I ignore the signs of diabetes?

It's hard to ignore the signs of type 1 diabetes because symptoms can often appear quite quickly. Leaving it untreated can lead to serious health problems, including diabetic ketoacidosis, which can result in a potentially fatal coma.

If left untreated, high blood glucose levels can cause serious health complications, including damage to your heart, blood vessels, nerves, eyes and kidneys.

What can I do to manage my risk for type 2 diabetes?

- Maintain a healthy body weight. Weight loss that leads to a body mass index (BMI) of 18.5 to 24.9 will reduce insulin resistance and improve glycaemic control.
- Get the help of a registered dietitian to guide you on what, and how much, you should be eating to control your blood glucose levels.
- Eat small, regular meals, including snacks. This helps to control blood glucose levels, as it ensures a constant supply of glucose to the body. Skipping meals or eating at different times each day can make it difficult to keep your blood glucose levels stable. Try to eat about the same amount of food at about the same time every day. If you're on the run, pack something that's easy to eat and control your portion sizes – for example, a fresh fruit and a small handful of nuts, or a serving of plain yoghurt.
- Don't eat sugar and sweet treats often, as part of a balanced eating plan.
- Include fibre-rich carbohydrates (carbs) with every meal. Unrefined carbs (wholegrains, fruits, vegetables and legumes like beans, lentils and chickpeas) are better choices than refined carbs (sweets, biscuits, cakes, pastries and commercially baked products). These high-fibre carbs have been shown to prevent drastic rises in blood glucose levels.



Examples of wholegrains include wholegrain breads and cereals, wholewheat pasta, wild and brown rice, oats, barley, popcorn, bulgur wheat, spelt, sorghum and quinoa. Choosing these foods – rather than low fibre, processed foods – will improve your overall health, and lower your diabetes risk.

- Eat two portions of fruit and at least three portions of vegetables every day. One portion about 80 g to 100 g, so, for example, one apple, a cup of raw vegetables or half a cup of cooked vegetables.
- Reduce saturated fats in your diet and choose oils from plant sources. Eating a lot of saturated fat (found in butter, pastry, fatty meat and high-fat dairy foods) has been linked with a higher rate of impaired glucose tolerance and diabetes. The more fat there is in your diet, the more difficult it is for insulin to get sugar into your cells. By choosing avocados, olive oil, canola oil, nuts and seeds instead, and reducing body fat, you're giving the insulin in your body the boost it needs to perform effectively.
- Be active, regularly – at least 25 to 45 minutes every day. Either have a longer exercise session at moderate intensity, or shorter sessions at vigorous intensity. Whatever activity you choose, you need to aim for a moderate level of exercise on most days of the week.