


Understanding diabetes


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Prevalence and general impact



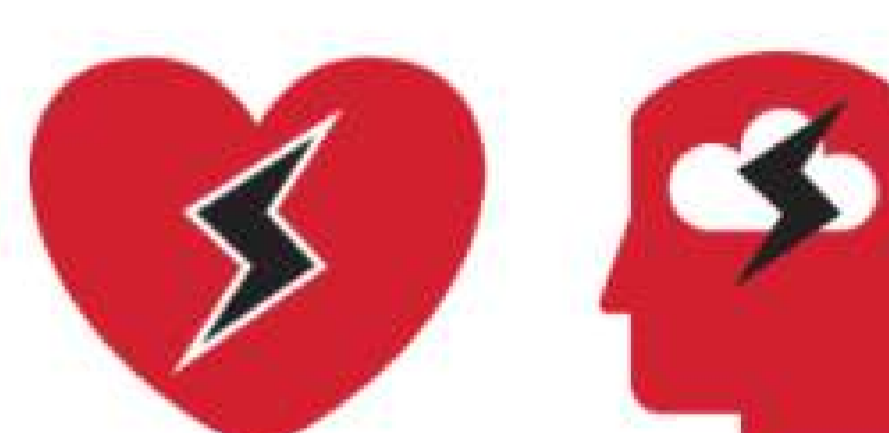
In 2014, it was estimated that **9% of adults had diabetes**

2012 figures show that diabetes was directly responsible for **1.5 million deaths**



2015 figures show that **17.5% of adults had diabetes**

Over time, high blood sugar seen in uncontrolled diabetes can cause damage to the body, in particular the nerves and blood vessels.¹ Diabetes, **high blood pressure** and **high cholesterol** share one thing in common—they can all increase your chances of getting cardiovascular disease (eg, chest pain, heart attack, stroke).³



Definition and types of diabetes

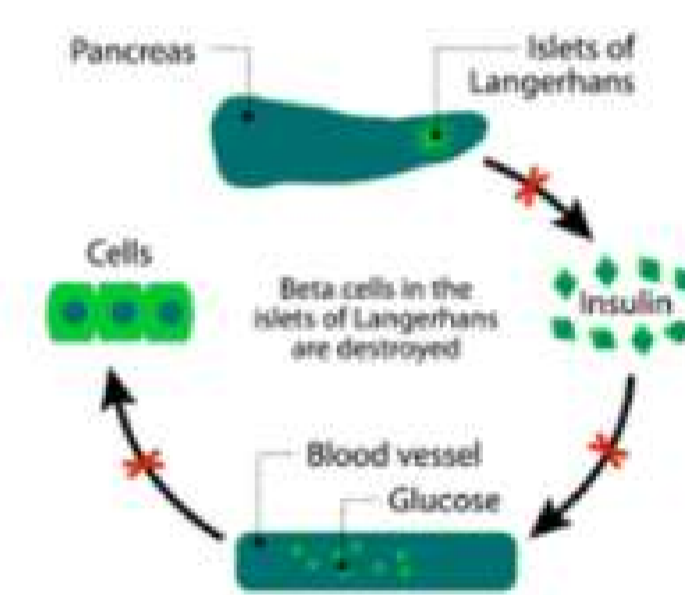
Diabetes is a long-term disease in which your body does not produce sufficient insulin, or cannot use the insulin it produces properly. Insulin is a hormone that regulates blood sugar by allowing sugar to enter your cells, thereby lowering sugar levels in the blood.^{1,4}



Types of diabetes:

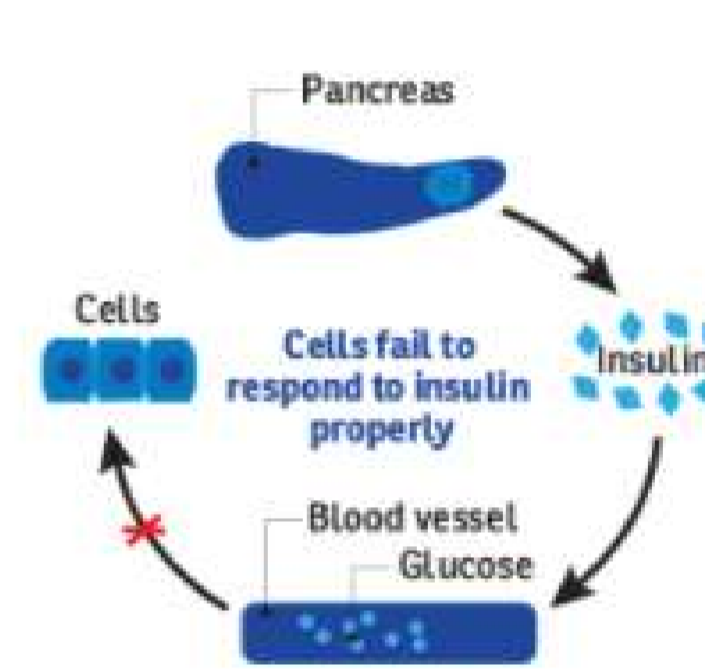
Type 1 diabetes

- The body (pancreas) does not produce insulin, and you have to take insulin injections for the rest of your life. You also need to make sure you **eat healthily**, have regular **physical activity** and test your blood sugar routinely.⁵
- Onset is usually before the age of 40, in particular during adolescence.⁵
- Not preventable.¹



Type 2 diabetes

- The body's cells do not respond to insulin effectively and the body does not produce sufficient insulin to overcome this resistance.⁴
- Is far more common than type 1 diabetes. Globally, 90% of people with diabetes have type 2 diabetes.¹
- Being overweight/obese and physically inactive are the major risk factors.¹
- Having prediabetes (blood sugar levels above the normal range, but not high enough to be diagnosed as having diabetes) increases the risk of developing full-blown diabetes.⁵ If you have prediabetes, lifestyle modifications can potentially normalize blood sugar levels.⁴
- Some people may eventually need **medication** despite lifestyle modifications.³



Gestational diabetes

- Elevated blood sugar levels during pregnancy.¹
- Usually develops during the second trimester (weeks 14 to 26).⁵
- Blood sugar typically returns to normal after delivery.⁵
- Increases the risk of complications during pregnancy and delivery, and getting type 2 diabetes later in life.¹



What are the tests for type 1 and type 2 diabetes?

You must be screened for diabetes if you have symptoms suggestive of diabetes, eg, tiredness, extreme thirst, frequent urination, excessive hunger, weight loss, wounds that heal slowly and blurred vision.^{4,5}



Even if you do not have symptoms, you should also get tested if you are overweight or obese, and have risk factors such as having a first-degree family member (father, mother, sister or brother) with diabetes, a history of cardiovascular disease, **high blood pressure**, previous gestational diabetes, taking certain medications, or being physically inactive.⁶

If all the above do not apply to you, you should still get a test for diabetes every year if you are aged 30 years or older.⁶

HbA_{1c} is a blood test that reflects your average blood sugar levels for the previous 3 months. This test is not suitable for diagnosis if you have certain conditions that can make the test inaccurate, such as pregnancy, being below 18 years of age, being on iron supplements, or having an uncommon form of haemoglobin. Check with your doctor to find out more.^{4,6}



An **oral glucose tolerance test (OGTT)** would require you to fast overnight. After your fasting blood sugar level is measured, you will be asked to drink a sugary drink. Your blood sugar levels will be measured again over the subsequent 2 hours.⁴



Apart from HbA_{1c} or OGTT, your doctor may also perform a **random blood sugar test** (taken at a random time) and/or **fasting blood sugar test** (drawing a blood sample after an overnight fast) to help in the diagnosis of diabetes or prediabetes.^{4,6}

If your doctor suspects that you have type 1 diabetes, your urine will be tested for the presence of ketones. Ketones are chemicals produced when there is insufficient insulin in the blood, and muscle and fat tissues are used for energy.⁴

References

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