



Key facts

- In 2014 the global prevalence of diabetes was estimated to be 9% among adults aged 18+ years.
- In 2012, an estimated 1.5 million deaths were directly caused by diabetes.
- More than 80% of diabetes deaths occur in low- and middle-income countries.
- WHO projects that diabetes will be the 7th leading cause of death in 2030.
- Healthy diet, regular physical activity, maintaining a normal body weight and avoiding tobacco use can prevent or delay the onset of type 2 diabetes.
- People living in the Middle East have some of the highest rates of physical inactivity, excess body weight and high blood sugar in the world.

What is diabetes?

Diabetes is a chronic disease that occurs when the pancreas does not produce enough insulin, or when the body cannot effectively use the insulin it produces. Insulin is a hormone that regulates blood sugar in the body. Hyperglycemia, or raised blood sugar, is a common effect of uncontrolled diabetes and over time leads to serious damage to many of the body's systems, the heart, kidneys, eyes and especially the nerves and blood vessels. There are two main types:

Type 1 diabetes

Type 1 diabetes (previously known as insulin-dependent, juvenile or childhood-onset) is characterized by deficient insulin production and requires daily administration of insulin. The cause of type 1 diabetes is not known and it is not preventable with current knowledge.

Symptoms of hyperglycemia include: passing a lot of urine (polyuria), excessive thirst (polydipsia), constant hunger, weight loss, blurred vision, numbness in extremities, pain in feet (disesthesias), recurrent or severe infections, fatigue, loss of consciousness and coma. These symptoms may occur suddenly.

Type 2 diabetes

Type 2 diabetes (formerly called non-insulin-dependent or adult-onset) results from the body's ineffective use of insulin. Type 2 diabetes comprises 90% of people with diabetes around the world, and is largely the result of excess body weight, physical inactivity and poor diet. Symptoms may be similar to those of Type 1 diabetes, but are often less marked. As a result, the disease may be diagnosed several years after onset, once complications have already arisen.

Until recently, this type of diabetes was seen only in adults but it is now also occurring in children and adolescents.

High risk Factors for Type 2 Diabetes

Obesity or over weight	Tobacco use
Inactivity	Family history
Impaired glucose tolerance (IGT) test and impaired fasting glycaemia (IFG) test	

Early diagnosis can be accomplished through relatively inexpensive blood testing and should be a part of a regular health check if you are at risk or every five years over the age of 45. A healthy blood sugar level is between 4-6 mmols/L or 72-100 mgs/dl.

A glycated haemoglobin (HbA1c) blood test reflects average plasma glucose over the previous eight to 12 weeks. It can be performed at any time of the day and does not require any special preparation such as fasting. These properties have made it the preferred test for assessing glycaemic control in people with diabetes. More recently, there has been substantial interest in using it as a diagnostic test for diabetes and as a screening test for persons at high risk of diabetes which has been backed by WHO experts. An HbA1c of 6.5% is recommended as the cut off point for diagnosing diabetes. A value of less than 6.5% however does not exclude diabetes diagnosed using glucose tests.

Complications of diabetes.

Over time, diabetes can damage the heart, blood vessels, eyes, kidneys, and nerves.

- Diabetes increases the risk of heart disease and stroke. 50% of people with diabetes die of cardiovascular disease (primarily heart disease and stroke).
- Diabetic neuropathy is damage to the nerves as a result of diabetes, and affects up to 50% of people with diabetes. Common symptoms are tingling, pain, numbness, or weakness in the feet and hands.
- Combined with reduced blood flow, neuropathy in the feet increases the chance of foot ulcers and eventual limb amputation.
- Diabetic retinopathy is an important cause of blindness, and occurs as a result of long-term accumulated damage to the small blood vessels in the retina. After 15 years of diabetes, approximately 2% of people become blind, and about 10% develop severe visual impairment.
- Diabetes is among the leading causes of kidney failure. 10-20% of people with diabetes die of kidney failure.
- The overall risk of dying among people with diabetes is at least double the risk of their peers without diabetes.
- Diabetes and its complications have a significant economic impact on individuals, families, health systems and countries.

Treatment

Treatment of diabetes involves lowering blood glucose and the levels of other known risk factors that damage blood vessels.

- Check your blood sugar regularly.
- Take your medication as prescribed, eat healthy food and exercise regularly.
- Monitor blood pressure, check your feet and have regular eye checks.
- Know the signs of hypoglycemia (low blood sugar): feeling weak, palpitations, shakiness, sweating, drowsiness, dizziness and hunger. Carry fruit juice or candy with you to take if you should feel hypoglycaemic.
- Know the signs of hyperglycemia (high blood sugar)

Other cost saving interventions include:

- screening and treatment for retinopathy (which causes blindness)
- blood lipid control (to regulate cholesterol levels)
- screening for early signs of diabetes-related kidney disease.

Prevention

Simple lifestyle measures have been shown to be effective in preventing or delaying the onset of type 2 diabetes and its complications:

- achieve and maintain a healthy body weight.
- be physically active – at least 30 minutes of regular, moderate-intensity activity on most days.
- eat a healthy diet of between three and five servings of fruit and vegetables a day and reduce sugar and saturated fats intake.
- avoid tobacco use – smoking increases the risk of cardiovascular diseases.
- Regular health checks and early detection and treatment of complications (at intervals recommended by national and international guidelines): eye exam, urine test, foot care, and specialist referral as needed.