

Diabetes: World Health Organisation Fact Sheet

Fact sheet N°312, Updated March 2013

For more information on Diabetes and its management [Click Here](#)

Key facts

- 347 million people worldwide have diabetes* (1).
 - In 2004, an estimated 3.4 million people died from consequences of high fasting blood sugar (2).
 - More than 80% of diabetes deaths occur in low- and middle-income countries (3).
 - WHO projects that diabetes will be the 7th leading cause of death in 2030 (4).
 - Healthy diet, regular physical activity, maintaining a normal body weight and avoiding tobacco use can prevent or delay the onset of type 2 diabetes.
-

What is diabetes?

Diabetes is a chronic disease that occurs either 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. Hyperglycaemia, 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, especially the nerves and blood vessels.

347 million people worldwide have diabetes. In 2004, an estimated 3.4 million people died from consequences of fasting high blood sugar. A similar number of deaths has been estimated for 2010. More than 80% of diabetes deaths occur in low- and middle-income countries.

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 include excessive excretion of urine (polyuria), thirst (polydipsia), constant hunger, weight loss, vision changes and fatigue. 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 (5), and is largely the result of excess body weight and physical inactivity.

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.

Gestational diabetes

Gestational diabetes is hyperglycaemia with onset or first recognition during pregnancy.

Symptoms of gestational diabetes are similar to Type 2 diabetes. Gestational diabetes is most often diagnosed through prenatal screening, rather than reported symptoms.

Impaired glucose tolerance (IGT) and impaired fasting glycaemia (IFG)

Impaired glucose tolerance (IGT) and impaired fasting glycaemia (IFG) are intermediate conditions in the transition between normality and diabetes. People with IGT or IFG are at high risk of progressing to type 2 diabetes, although this is not inevitable.

What are common consequences 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) (6).
- Combined with reduced blood flow, neuropathy (nerve damage) in the feet increases the chance of foot ulcers, infection and eventual need for 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. One percent of global blindness can be attributed to diabetes (7).
- Diabetes is among the leading causes of kidney failure (4).
- The overall risk of dying among people with diabetes is at least double the risk of their peers without diabetes (8).

How can the burden of diabetes be reduced?

Prevention

Simple lifestyle measures have been shown to be effective in preventing or delaying the onset of type 2 diabetes. To help prevent type 2 diabetes and its complications, people should:

- achieve and maintain healthy body weight;
- be physically active – at least 30 minutes of regular, moderate-intensity activity on most days. More activity is required for weight control;
- 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.

Diagnosis and treatment

Early diagnosis can be accomplished through relatively inexpensive blood testing.

Treatment of diabetes involves lowering blood glucose and the levels of other known risk factors that damage blood vessels. Tobacco use cessation is also important to avoid complications.

Interventions that are both cost saving and feasible in developing countries include:

- moderate blood glucose control. People with type 1 diabetes require insulin; people with type 2 diabetes can be treated with oral medication, but may also require insulin;
- blood pressure control;
- foot care.

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.

These measures should be supported by a healthy diet, regular physical activity, maintaining a normal body weight and avoiding tobacco use.

WHO response

WHO aims to stimulate and support the adoption of effective measures for the surveillance, prevention and control of diabetes and its complications, particularly in low and middle-income countries. To this end, WHO:

- provides scientific guidelines for diabetes prevention;
- develops norms and standards for diabetes diagnosis and care;
- builds awareness on the global epidemic of diabetes; including partnership with the International Diabetes Federation in the celebration of World Diabetes Day (14 November);
- conducts surveillance of diabetes and its risk factors.

The WHO *Global strategy on diet, physical activity and health* complements WHO's diabetes work by focusing on population-wide approaches to promote healthy diet and regular physical activity, thereby reducing the growing global problem of overweight and obesity.

* Definition of diabetes used for the estimates: fasting glucose \geq 7.0 mmol/L or on medication.