

Additional Diabetes Information

Facts about diabetes¹

- In one generation, the prevalence of diabetes has increased 8-fold worldwide. Estimates show that 366 million people currently live with diabetes and additionally 280 million are at identifiably high risk of developing diabetes
- By 2030, 552 million people are expected to live with the disease and 398 million are at high risk of developing diabetes.
- More than 50% of people with diabetes are unaware of their condition, which is costing society millions of dollars in treating the many serious complications that arise from undiagnosed or poorly treated diabetes (blindness, kidney failure, nerve diseases, limb amputations and cardiovascular diseases). In some countries this figure may reach 80%.
- Seven out of 10 countries (India, China, Russia, etc) with the highest number of people living with diabetes are in the developing world. But also rich countries are being affected by the pandemic (United States, Japan, etc).
- Over 50% of the adults over age 35 living in indigenous communities worldwide have diabetes.
- By 2025, more than 80% of all cases of diabetes are expected to occur in low and middle-income countries.
- Diabetes is as prevalent in India as it is in the United States, with the disease affecting 8% of the population of both countries. In India, this equals 41 million people, compared to 19 million in the United States.

¹ Sources: *Diabetes Atlas*, International Diabetes Federation, 4th edition, 2009.

- Diabetes causes 4.6 million deaths globally, equal to more than 6% of total world mortality and similar in magnitude to those reported for HIV/AIDS in the year 2002. Every 10 seconds, a person dies of a diabetes-related illness. Diabetes is the fourth leading cause of death by disease globally.
- Type 2 diabetes accounts for 85–95% of all diabetes cases in developed countries, and accounts for an even higher percentage in developing countries. 80% of type 2 diabetes cases are believed to be preventable by changing diet, increasing physical activity and improving the living environment.
- Type 1 diabetes, which mostly affects young people, is rising in prevalence worldwide at a rate of 3% per year.
- In 2011, global spending on diabetes was an estimated 465 billion US dollars. This is equivalent to 11 % of total health spending globally.
- The human and economic costs of diabetes could be significantly reduced by investing in prevention, particularly early detection, in order to avoid the onset of diabetes-related complications.

Type 1 and Type 2 Diabetes

Today, an estimated 366 million people, corresponding to 5.4% of the world's adult population, suffer from diabetes worldwide. This number is expected to grow to 438 million by 2030, making diabetes one of the greatest global health challenges of the 21st century.²

Diabetes is a metabolic condition that leads to high blood sugar levels, which can have serious consequences for short and long-term health. People with diabetes experience raised blood sugar because of either a partial or complete reduction of insulin production in their bodies.

There are two kinds of diabetes: type 1 and type 2. In type 2 diabetes, the pancreas produces insufficient quantities of insulin and/or the insulin has a reduced effect on the muscle and liver cells. In type 1 diabetes, the body does not produce insulin at all.

Factors contributing to the increased prevalence of diabetes include:

- General population growth
- Ageing population caused by longer overall life expectancies
- Better screening, leading to an increase in diagnosed patient numbers
- Urbanisation and lifestyle changes leading to an increase in obesity

The growth of diabetes is already impacting health budgets across the globe. From country to country, the direct healthcare cost of diabetes varies from 2.5 to 15% of annual healthcare budgets depending on the prevalence of diabetes and the sophistication of the treatment available. A global change is therefore urgently needed.

² *Global Diabetes Plan 2011-2021*, International Diabetes Federation, 2011.

Effects of diabetes

The health risks and complications associated with diabetes account for much of the social and financial burden of the disease.

Diabetes is a serious condition that leads to severe complications if not diagnosed early and treated properly. High blood glucose can damage eyes, kidneys, nerves and large blood vessels, and resulting complications include loss of vision, amputation and kidney failure.

Symptoms of diabetes

Diabetes causes blood glucose levels to increase, which can cause symptoms such as:

- Excessive thirst
- Frequent urination
- Fatigue
- Blurred vision
- Weight loss.

For type 1 diabetes the symptoms are often severe or distinct, whereas for type 2 diabetes symptoms can be weak or very subtle.

Type 1 diabetes

Type 1 diabetes develops when the cells that produce insulin are destroyed by the individual's own immune system. The reason for this autoimmune destruction is unknown, but may be triggered by external environmental factors.

Approximately 50% of people with type 1 diabetes are diagnosed before they reach the age of 18. People with type 1 diabetes must take insulin injections on a daily basis and must work to balance their food, exercise, stress and insulin 24/7 to avoid low blood sugar reactions and long-term complications. The rate of type 1 diabetes is increasing, especially in children under age 5.

Worldwide, approximately seven million people have type 1 diabetes.

Type 2 diabetes

Type 2 diabetes accounts for 85–95% of all cases of diabetes and is growing at an epidemic rate, especially in developing countries.

Risk factors

The disorder is the result of a combination of genetic susceptibility and external environmental factors. The impact of these external factors on the development of the condition is the basis for the global epidemic increase in type 2 diabetes.

Risk factors for type 2 diabetes are:

- Evidence of impaired glucose tolerance
- Physical inactivity
- Being overweight: 85% of children diagnosed with type 2 diabetes are overweight or obese
- Gestational diabetes
- A family history of type 2 diabetes
- Being aged over 45.

Symptoms and diagnosis of diabetes

Individuals with type 2 diabetes often have high levels of blood lipids and cholesterol, increasing the risk of cardiovascular disease, which accounts for over 80% of deaths in people with type 2 diabetes.

The above-mentioned symptoms can be weak or very subtle in type 2 diabetes, and people can have the condition unawares for up to 10 years before being diagnosed. When diabetes is overlooked in this way, it can remain undiagnosed until diabetes-related complications occur. In the United States, for example, it is estimated that more than one-third of people with diabetes are undiagnosed; but in other parts of the world it could be up to 70%.

Management

People with type 2 diabetes can often initially manage their condition by exercising more and controlling their diet. As the disease progresses and intensifies, treatment with oral tablets is initiated when blood glucose cannot be regulated by a healthy lifestyle alone. If and when tablets are no longer enough to control blood glucose, insulin becomes the preferred treatment option.