



DIABETES MELLITUS

Diabetes Mellitus 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 responsible for regulating blood glucose levels. A common consequence of uncontrolled diabetes is hyperglycemia (high blood sugar), which over time can severely damage many organs and systems in the body, particularly the nerves and blood vessels.

According to the WHO, in 2022, 14% of people aged 18 and older were living with diabetes, an increase from 7% in 1990. In the same year, more than half (59%) of adults aged 30 and older with diabetes were not receiving any medication to manage the condition.

In 2021, diabetes was the direct cause of 1.6 million deaths, with 47% of these occurring in individuals under the age of 70. Additionally, 530,000 deaths were linked to diabetic nephropathy (diabetic kidney disease, a common long-term complication of diabetes). Hyperglycemia (high blood sugar levels) also contributed to around 11% of all cardiovascular deaths worldwide.

Since 2000, mortality rates from diabetes have continued to rise. In contrast, between 2000 and 2019, the global probability of dying between ages 30 and 70 from one of the four leading noncommunicable diseases (cardiovascular disease, cancer, chronic respiratory disease, or diabetes) decreased by 20%. (Noncommunicable diseases (NCDs) cannot be transmitted from person to person.)

All these data indicate that diabetes is a disease with both high incidence and prevalence, and its rates have continued to rise worldwide in recent decades.

There are three main types of diabetes:

- **Type 1 diabetes**, formerly known as insulin-dependent, juvenile, or childhood-onset diabetes, is caused by insufficient insulin production and therefore requires daily administration of this hormone. In 2017, an estimated 9 million people worldwide were living with type 1 diabetes, most of them in high-income countries. Its exact cause remains unknown, and there is currently no known way to prevent this form of the disease.
- **Type 2 diabetes** affects how the body uses sugar (glucose) for energy, reducing the body's ability to use insulin effectively. If left untreated, this can lead to elevated blood sugar levels. Over time, type 2 diabetes can cause serious complications, particularly affecting the nerves and blood vessels. Type 2 diabetes can often be prevented. Several factors contribute to its development, including being overweight, lack of physical activity, and genetic predisposition.

Early diagnosis is essential to reduce serious complications. The most effective way to detect type 2 diabetes early is through regular checkups and blood tests with a healthcare provider. Symptoms of type 2 diabetes can be mild and may take several years to appear. They are similar to those of type 1 diabetes but often less intense. As a result, type 2 diabetes is often diagnosed only years after the first symptoms have appeared, at a point when complications may already have developed.

More than 95% of all people with diabetes have type 2. This form of diabetes was previously known as “non-insulin-dependent” or “adult-onset” diabetes because it mainly occurred in adults but is now increasingly common in children.

- **Gestational diabetes** occurs during pregnancy and is characterized by high blood sugar levels (hyperglycemia) that are above normal but not high enough for a diabetes diagnosis. Women who develop gestational diabetes face an increased risk of complications during pregnancy and childbirth. In addition, both the mother and her children may have a higher risk of developing type 2 diabetes later in life. Gestational diabetes is usually diagnosed through prenatal tests rather than based on reported symptoms.

In addition to the three main types of diabetes, there are “prediabetes” conditions in which blood sugar levels are elevated but not yet in the diabetic range. These states are important because they significantly increase the risk of developing type 2 diabetes.

Intermediate glucose states (prediabetes)

Impaired Glucose Tolerance (IGT), where blood sugar levels are higher than normal 2 hours after eating, and Impaired Fasting Glucose (IFG), referring to elevated fasting blood sugar measured after not eating for at least 8 hours, are intermediate states between normal and diabetic. Both conditions carry a high risk of progressing to type 2 diabetes, although this progression can be prevented.

Prevention

The most effective way to prevent or slow the development of type 2 diabetes is to adopt healthy everyday habits. To support your long-term health and reduce the risk of complications, consider incorporating some simple, positive lifestyle choices:



- Ensure early diagnosis by having your blood sugar checked once a year by your local medical service
- Be physically active, aiming for at least 150 minutes of moderate exercise per week.
- Follow a balanced diet, with limited sugar and unhealthy fats.
- Avoid smoking to support your overall health.



Symptoms

Diabetes symptoms can appear suddenly. In type 2 diabetes, they are often mild and may take many years to become noticeable.

The most important symptoms are:



- feeling very thirsty
- needing to urinate more often than usual;
- blurred vision;
- tiredness;
- unintentional weight loss;

Over time, diabetes can damage blood vessels in the heart, eyes, kidneys, and nerves. As a result, people with diabetes are at higher risk of serious health problems such as heart attacks, strokes, and kidney failure.

Diabetes can also cause permanent vision loss (blindness) due to damage to the blood vessels in the eyes. In addition, many people with diabetes develop foot problems caused by nerve damage and poor blood flow, which can lead to ulcers (wounds on the skin or tissue that do not heal properly and may deepen over time), and, in severe cases, amputation.

Diagnosis and treatment

One of the most effective ways to manage diabetes is to maintain healthy everyday habits. Early diagnosis can be achieved through relatively low-cost blood sugar tests.

People with **type 1 diabetes** need insulin to survive. Some people with **type 2 diabetes** may also require medication, such as insulin injections or oral antidiabetic drugs, to help control blood sugar levels.

In addition to blood sugar management, people with diabetes often take medication to control high blood pressure and reduce the risk of other complications.

Depending on individual needs, further interventions may be necessary to address diabetes-related effects, such as:

- treatment of foot ulcers;
- screening and treatment for kidney failure;
- eye exams to detect diabetic retinopathy (which can lead to blindness).

Your health matters

Diabetes remains a significant global health challenge, but with small, consistent lifestyle choices, regular check-ups, and awareness of symptoms, many of its complications can be prevented. By staying aware of the risks and taking small, proactive steps toward healthier habits, each of us can play an active role in protecting our long-term well-being.

“Control your blood sugar level, keep diabetes at bay!”