



What is diabetes?

Diabetes is a chronic, potentially debilitating and often fatal disease. The disease occurs as a result of problems with the production and supply of insulin in the body. Either the body produces no or insufficient insulin (type 1 diabetes), or the body cannot use the insulin it produces effectively (type 2 diabetes).

Insulin is a hormone made by the pancreas that helps 'sugar' (glucose) to leave the blood and enter the cells of the body to be used as 'fuel'.

Two types of diabetes

There are two main types of diabetes:

Type 1 diabetes is sometimes called insulin-dependent, immune-mediated or juvenile-onset diabetes. It is caused by an auto-immune reaction where the body's defence system attacks the insulin-producing cells. The reason why this occurs is not fully understood. People with type 1 diabetes produce very little or no insulin. The disease can affect people of any age, but usually occurs in children or young adults. People with this form of diabetes need injections of insulin every day in order to control the levels of glucose in their blood. If people with type 1 diabetes do not have access to insulin, they die.

Type 2 diabetes is sometimes called non-insulin dependent diabetes or adult-onset diabetes. People with type 2 diabetes do not usually require injections of insulin. Usually, they can control the glucose in their blood by watching their diet, taking regular exercise, oral medication, and possibly insulin.

Type 2 diabetes is most common in people older than 45 who are overweight. However, as a consequence of increased obesity among the young, it is becoming more common in children and young adults. Type 2 diabetes is the most common type of diabetes and accounts for 90-95% of all diabetes.

If people with type 2 diabetes are not diagnosed and treated, they can develop serious complications, which can result in an early death. Worldwide, many millions of people have type 2 diabetes without even knowing it. Others do not have access to adequate medical care. The onset of type 2 diabetes is also linked to genetic factors but obesity, physical inactivity and unhealthy diet increase the risks.

Some women develop a third, usually temporary, type of diabetes called '**gestational diabetes**' when they are pregnant. Gestational diabetes develops in 2-5% of all pregnancies, but usually disappears when the pregnancy is over. Women who have had gestational diabetes have an increased risk of developing type 2 diabetes later on.

Impaired Glucose Tolerance (IGT)

People with impaired glucose tolerance (IGT) have glucose levels that are above normal but below the level at which diabetes is diagnosed. People with IGT have a significant risk of developing type 2 diabetes. They are thus an important target group for primary prevention. Changes in lifestyle, including diet and physical activity can greatly reduce the onset of diabetes.



International Diabetes Federation

Recognizing diabetes

The onset of type 1 diabetes is often sudden and dramatic and can include symptoms such as:

- Abnormal thirst and a dry mouth
- Frequent urination
- Extreme tiredness/lack of energy
- Constant hunger
- Sudden weight loss
- Slow-healing wounds
- Recurrent infections
- Blurred vision

The same symptoms that are listed above can also affect people with type 2 diabetes, but usually the symptoms are less obvious. The onset of type 2 diabetes is gradual and therefore hard to detect. Indeed, some people with type 2 diabetes show no obvious symptoms early on. These people are often diagnosed several years later, when various complications are already present.

Life-threatening complications

Without proper insulin production and action, glucose remains in the blood, leading to chronic hyperglycaemia (raised blood sugar). This can result in short and long-term complications, many of which, if not prevented and left untreated, can be fatal. All have the potential to reduce the quality of life of people with diabetes and their families.

The most common long-term complications are:

- Diabetic nephropathy (kidney disease), which may result in total kidney failure and in the need for dialysis or kidney transplant.
- Diabetic eye disease (retinopathy and macular oedema), damage to the retina of the eye which can lead to vision loss.
- Diabetic neuropathy (nerve disease), which can ultimately lead to ulceration and amputation of the feet and lower limbs.
- Cardiovascular disease, which affects the heart and blood vessels and may cause fatal complications such as coronary heart disease (leading to a heart attack) and stroke.

Diabetes is the fourth leading cause of death by disease globally. Every year, 3.8 million people die from diabetes-related causes.