

Diabetes

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Diabetes mellitus, commonly known as diabetes, is a group of common endocrine diseases characterized by sustained high blood sugar levels. Diabetes is due to either the pancreas not producing enough of the hormone insulin, or the cells of the body becoming unresponsive to insulin's effects. Classic symptoms include the three Ps: polydipsia (excessive thirst), polyuria (excessive urination), polyphagia (excessive hunger), weight loss, and blurred vision. If left untreated, the disease can lead to various health complications, including disorders of the cardiovascular system, eye, kidney, and nerves. Diabetes accounts for approximately 4.2 million deaths every year, with an estimated 1.5 million caused by either untreated or poorly treated diabetes. The major types of diabetes are type 1 and type 2. The most common treatment for type 1 is insulin replacement therapy (insulin injections), while anti-diabetic medications (such as metformin and semaglutide) and lifestyle modifications can be used to manage type 2. Gestational diabetes, a form that sometimes arises during pregnancy, normally resolves shortly after delivery. Type 1 diabetes is an autoimmune condition where the body's immune system attacks the beta cells in the pancreas, preventing the production of insulin. This condition is typically present from birth or develops early in life. Type 2 diabetes occurs when the body becomes resistant to insulin, meaning the cells do not respond effectively to it, and thus, glucose remains in the bloodstream instead of being absorbed by the cells. Additionally, diabetes can also result from other specific causes, such as genetic conditions (monogenic diabetes syndromes like neonatal diabetes and maturity-onset diabetes of the young), diseases affecting the pancreas (such as pancreatitis), or the use of certain medications and chemicals (such as glucocorticoids, other specific drugs and after organ transplantation). The number of people diagnosed as living with diabetes has increased sharply in recent decades, from 200 million in 1990 to 830 million by 2022. It affects one in seven of the adult population, with type 2 diabetes accounting for more than 95% of cases. These numbers have already risen beyond earlier projections of 783 million adults by 2045. The prevalence of the disease continues to increase, most dramatically in low- and middle-income nations. Rates are similar in women and men, with diabetes being the seventh leading cause of death globally. The global expenditure on diabetes-related healthcare is an estimated US\$760 billion a year.