Diabetes

What do you know about Diabetes?

Diabetes mellitus, commonly referred to as diabetes, is a condition in which the body's blood glucose, or blood sugar, is too high. Glucose comes from the food we eat and is the body's main source of energy. Glucose requires insulin (a hormone produced in the pancreas) to help it reach the cells of the body. Diabetes occurs when the body produces either insufficient quantities of insulin or no insulin at all. This causes glucose levels to build up in the blood.

Consistently elevated blood glucose levels can lead to long-term health issues, including heart disease, stroke, kidney failure, and vision impairment. Nevertheless, with appropriate management, diabetes can typically be effectively controlled, reducing the risk of complications. Managing the condition typically requires ongoing treatment throughout a person's life, as there is presently no cure for diabetes.

If you're concerned that you or someone you know might be experiencing this condition, learn more about diabetes symptoms:

- Excess urination
- Excess thirst
- Unintentional weight loss
- Constant hunger
- Blurry vision
- Tingling of the hands and feet
- Fatigue
- Dry skin
- Sores that heal slowly
- More infections than usual

What are the different types of diabetes?

There are several types of diabetes, though type 1, type 2 and gestational diabetes are the most common:

Type 1 diabetes

commonly develops in children and adolescents, although it can affect individuals of all age groups. It arises when the body stops producing insulin, leading to elevated blood glucose levels. This occurs due to an autoimmune response where the body's immune system erroneously attacks the pancreatic cells responsible for insulin production.

The precise cause of type 1 diabetes is not fully understood. While it is not classified as an inheritable disorder, individuals have a higher likelihood of developing type 1 diabetes if a close family member, like a parent or sibling, has the condition.

Typically, the symptoms of type 1 diabetes manifest rapidly, usually within a few days or weeks, and include increased thirst, fatigue, and frequent urination. Treatment primarily involves administering insulin through injections. With effective management, type 1 diabetes can generally be well-controlled

Type 2 diabetes

Type 2 diabetes typically affects people over the age of 40, though it is becoming increasingly common in those of a younger age. This type of diabetes occurs when the body ceases to produce enough insulin, or when the body does not use insulin properly (something known as insulin resistance). It may also be caused by a combination of these two factors.

Type 2 diabetes is often linked to being overweight or obese. Symptoms typically develop slowly, over a few months or years, and include thirstiness, tiredness, and a need to urinate frequently. Treatment typically involves lifestyle changes such as eating a healthy diet and regular exercise, however, in some cases, medication may also be required to manage blood sugar levels.

Gestational diabetes

Gestational diabetes is a unique form of diabetes that develops for the first time during pregnancy. It is associated with an increased risk of miscarriage, premature delivery, and the potential need for a cesarean section. However, with proper management, these risks can be significantly mitigated.

Diabetes complications

Effective treatment for individuals with diabetes frequently helps them avoid the potential complications linked to the condition. In contrast, the absence of treatment or its ineffectiveness can lead to a spectrum of severe and potentially life-threatening complications. Complications of diabetes include:

- Cardiovascular disease: Diabetes increases the risk of various cardiovascular problems including stroke, heart attack and atherosclerosis (narrowing of the arteries).
- Nerve damage: Nerve damage can cause pain, tingling and numbness, especially in the extremities. Left untreated, this can lead to a total loss of feeling in the affected limbs.
- Kidney damage: Damage to the kidneys can, in extreme cases, cause kidney failure and may lead to the need for dialysis or a kidney transplant.
- Eye damage: Diabetes can, in extreme cases, lead to blindness and other vision problems such as cataracts and glaucoma.
- Foot damage: Poor blood flow to the extremities and nerve damage can cause various complications. Wounds, for example, can be slow to heal, and this may be particularly problematic when the feet are affected. Serious infections may result, and, in severe cases, amputation may be required

Read more:
https://diabetes.org/about-diabetes/complications

How is diabetes diagnosed

Three methods are used to measure blood glucose levels:

Type of test	Normal (mg/dL)	Pre-Diabetes (mg/dL)	Diabetes (mg/dL)
Fasting glucose test	<100	100-125	≥126
Random glucose test	<140	140-199	≥200
HBA1c test	<5.7%	5.7%-6.4%	≥6.5%

Diagnosis of gestational diabetes:

Oral Glucose Tolerance Test (OGTT):

Is a medical diagnostic test used to measure the body's ability to regulate blood sugar (glucose) levels after consuming a set amount of glucose. This test involves drinking a sugary solution, typically containing 75 grams of glucose, followed by blood sugar measurements taken at specific intervals, typically at fasting and one to two hours after consuming the solution. The results help healthcare professionals diagnose conditions like diabetes and impaired glucose tolerance.

- Fasting blood sugar: ≥92 mg/dL

After drinking 75 g of glucose:

- 1 hr after: ≥180 mg/dL
- 2 hr after≥153 mg/dL

The results may need to be repeated in four weeks if one of the results is higher than normal. If two or more of the results are higher than normal, the lady will be diagnosed with gestational diabetes.

Read more:
https://diabetesjournals.org/care/article/46/Supplement_1/S/148056/192-Classification-and-Diagnosis-of-Diabetes

Diabetes Treatment:

There is no cure for diabetes, meaning treatment is aimed at managing blood glucose levels and controlling the symptoms and possible complications of the condition. In most cases, diabetes can be successfully managed.
- Fasting blood sugar: ≥92 mg/dL

1.Individuals diagnosed with type 1 diabetes often need consistent insulin therapy to maintain healthy insulin levels. This typically entails administering insulin through injections, usually at a frequency of two to four times daily. While some individuals may opt for syringes, the majority often utilise insulin pens or auto-injectors (Insulin Pump).

2.Lifestyle changes are the main method of treatment for type 2 diabetes. Managing type 2 diabetes encompasses several strategies:

- Dietary Modifications: Adopting a healthy, well-balanced diet is essential for controlling type 2 diabetes. A registered dietitian can provide personalised dietary recommendations, but generally, a diet that is low in fat and rich in fibre, fruits, and vegetables is recommended.

- Physical Activity: Engaging in approximately thirty minutes of moderate-intensity exercise five days per week is typically recommended for individuals with type 2 diabetes.

- Weight Management: For individuals with type 2 diabetes who are overweight or obese, shedding excess weight can contribute to lowering blood glucose levels. Dietary changes and regular exercise can be instrumental in achieving this goal.

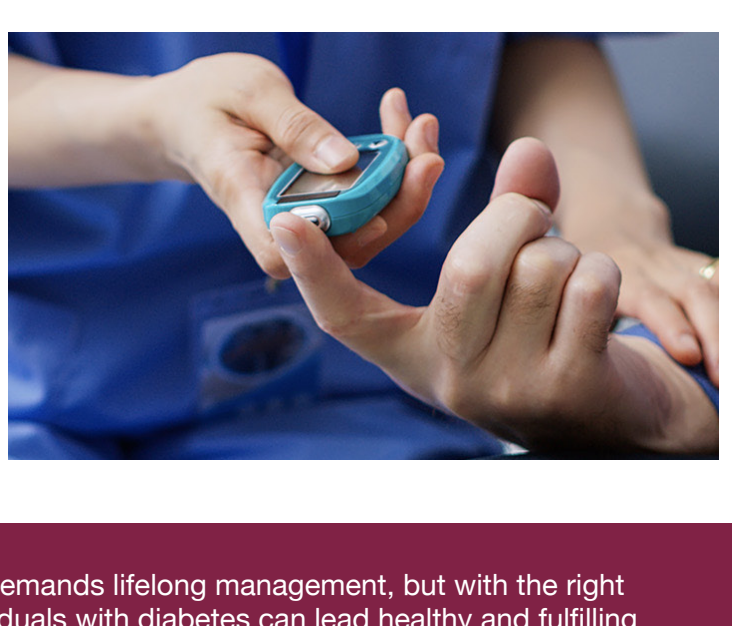
- Lifestyle Changes: In many instances, lifestyle adjustments alone can lead to a reduction in blood glucose levels to the target range, potentially resulting in remission. However, some individuals may require oral or injectable medications, which will be prescribed based on their specific needs and circumstances.

If you have diabetes, Know your Numbers

The glycaemic goals typically advised for many non-pregnant adults living with diabetes include:

HBA1C	<7.0%
Pre-prandial plasma glucose	80–130 mg/dL
Postprandial plasma glucose	<180 mg/dL

The target glycaemic goals for women with gestational diabetes is to keep the fasting glucose ≤ (95-90 mg/dl), and either one-hour post-meal ≤ (140 mg/dl), or 2-h post-meal ≤ (120 mg/dl).



In conclusion, diabetes is a chronic condition that demands lifelong management, but with the right tools, knowledge, early detection and support, individuals with diabetes can lead healthy and fulfilling lives. It's important to continue advocating for diabetes awareness, prevention, and research to improve the lives of those affected by this disease.

Learn more: https://diabetes.org/about-diabetes/diabetes-prevention