

# Diabetes mellitus: An overview of the illness and its treatment

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## Introduction

Diabetes mellitus is a chronic condition that affects millions of people worldwide. It is a metabolic disorder characterized by high levels of glucose in the blood due to the body's inability to produce or properly utilize insulin. The disease has become a significant health problem globally, and its prevalence is increasing at an alarming rate. In this essay, we will explore the causes, symptoms, and management of diabetes mellitus.

### ■ Causes

Diabetes mellitus can be caused by two main factors: Insulin deficiency and insulin resistance. Insulin is a hormone produced by the pancreas that regulates the amount of glucose in the blood. In people with type 1 diabetes mellitus, the pancreas fails to produce enough insulin, leading to high levels of glucose in the blood. Type 1 diabetes is usually diagnosed in children and young adults.

On the other hand, in type 2 diabetes mellitus, the body becomes resistant to the insulin produced by the pancreas. As a result, the body cannot effectively use the insulin, leading to high levels of glucose in the blood. Type 2 diabetes mellitus is often linked to lifestyle factors such as physical inactivity, obesity, and an unhealthy diet.

### ■ Symptoms

The symptoms of diabetes mellitus can vary depending on the severity of the disease.

However, some common symptoms include increased thirst, frequent urination, blurred vision, fatigue, and slow healing of wounds. In some cases, diabetes mellitus can also cause weight loss, increased appetite, and tingling or numbness in the feet or hands. If left untreated, diabetes mellitus can lead to serious health complications such as heart disease, kidney disease, and nerve damage.

### ■ Management

While there is no cure for diabetes mellitus, it can be managed effectively with a combination of lifestyle changes and medication. The primary goal of diabetes mellitus management is to keep blood glucose levels within a healthy range.

**Regular exercise**-Physical activity can help to lower blood glucose levels and improve insulin sensitivity. Patients with diabetes mellitus should aim to engage in at least 30 minutes of moderate-intensity exercise, such as brisk walking or cycling, most days of the week.

**Healthy diet**-A healthy diet is crucial in managing diabetes mellitus. Patients should aim to eat a balanced diet that is rich in fruits, vegetables, whole grains, and lean proteins. Patients should also limit their intake of processed foods, sugary drinks, and high-fat foods.

**Medications**-There are several medications that can be used to manage diabetes mellitus. Insulin injections are often prescribed for patients with type 1 diabetes mellitus. Patients with type 2 diabetes mellitus may be prescribed oral

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medications such as Metformin, which helps to lower blood glucose levels.

Blood glucose monitoring-Patients with diabetes mellitus should monitor their blood glucose levels regularly. This can be done using a blood glucose meter, which measures the amount of glucose in a drop of blood. Patients should aim to keep their blood glucose levels within a healthy range, which is typically between 80-130 mg/dL before meals and less than 180 mg/dL two hours after meals.

Regular check-ups-Patients with diabetes

mellitus should have regular check-ups with their healthcare provider to monitor their blood glucose levels and assess their risk for complications.

■ **Prevention**

Preventing diabetes mellitus is possible through lifestyle changes. Here are some ways to reduce the risk of developing diabetes mellitus. Maintaining a healthy weight-Being overweight or obese is a significant risk factor for type 2 diabetes mellitus. By maintaining a healthy weight through regular exercise and a healthy diet.