

# Diabetes.

## The facts in brief.

**Diabetes mellitus is a condition in which the amount of glucose (sugar) in the blood is too high because the body cannot use it properly.**

Glucose comes from the digestion of starchy foods such as bread, rice and potatoes, from sugar and other sweet foods, and from the liver which makes glucose.

Insulin is vital for life. It is a hormone produced by the pancreas that helps the glucose to enter the cells where it is used as fuel by the body.

### **There are two main types of diabetes.**

These are:

- **Type 1 diabetes**
- **Type 2 diabetes**

**Type 1 diabetes** develops if the body is unable to produce any insulin. This type of diabetes usually appears before the age of 40.

It is treated by insulin injections. Diet and regular exercise is recommended.

**Type 2 diabetes** develops when the body can still make some insulin, but not enough, or when the insulin that is produced does not work properly (known as insulin resistance). In most cases this is linked with being overweight. This type of diabetes usually appears in people over the age of 40, though in South Asian and African-Caribbean people it often appears after the age of 25. However, recently, more children are being diagnosed with the condition, some as young as seven. Type 2 diabetes is treated with lifestyle changes such as a healthier diet, weight loss and increased physical activity. Tablets and/or insulin may also be required to achieve normal blood glucose levels.

### **The main symptoms of untreated diabetes are:**

- Increased thirst
- Going to the loo all the time - especially at night
- Extreme tiredness
- Weight loss
- Genital itching
- Regular episodes of thrush
- Blurred vision

The main aim of treatment of both types of diabetes is to achieve blood glucose, blood pressure and cholesterol levels as near to normal as possible. This, together with a healthy lifestyle, will help to improve wellbeing and protect against long-term damage to the eyes, kidneys, nerves, heart and major arteries. People with diabetes are taught how to monitor their own sugar levels and encouraged to do this regularly.

### **Self-monitoring has the benefits of:**

- Helping to detect when blood sugar levels may be too low - hypoglycaemia
- Keeping blood sugar levels under control at times of illness. When these levels tend to rise - hyperglycaemia
- Giving the individual confidence to be in control of diabetes.

Most people are encouraged to measure their blood glucose at different times during the day or week. This is done by obtaining a small blood sample by pricking the skin. The sample is placed on to a test strip, which is then read by an electronic glucose test meter. For those people who have type 2 diabetes and may find this type of testing difficult (in particular older people), a nurse can help perform this reading. Under certain circumstances, urine testing is simpler and provides satisfactory results.

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### Long-term prospects

Both types of diabetes have the risk of complications.

### Acute complications

- Low glucose level, caused by treatment with insulin or oral hypoglycaemic drugs
- Diabetic acidosis, a life-threatening condition caused by the lack of insulin

### Late-stage diabetic complications

- Retinopathy (eye disease) that can cause blindness
- Diabetic kidney disease that can lead to kidney failure
- Diabetic neuropathy (nerve disease) that can cause foot ulcers and foot infections
- Atherosclerosis (hardening of the arteries), particularly in smokers and those with high blood pressure

Late-stage complications do not usually develop for 10-15 years with Type 1 diabetes.

In Type 2 diabetes, however, symptoms can appear close to the time of actual diagnosis because the disease may go undetected for longer. Many studies now show that good glucose control can significantly reduce or even stop complications. This means keeping the blood sugar level as close to normal as possible.

Recent studies have also confirmed the need for people with diabetes to reduce their risk of atherosclerosis (fatty deposits in your arteries). This is because if you have Type 2 diabetes, you have a four to five times greater risk of developing serious problems with your circulation that can lead to a heart attack or a stroke.

### The main factors that increase your risk are:

- Smoking
- High blood pressure
- Raised levels of fats such as cholesterol in the blood

By taking measures to address these issues, you will reduce your chance of developing complications such as heart disease.

