Understanding diabetes
Your essential guide
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This information is available in large print. Please call 0800 585 088 for a copy.

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How this booklet can help you

This booklet is an introduction to diabetes for adults who:

- have recently been diagnosed with Type 1 or Type 2 diabetes
- have been diagnosed a while ago but still have some unanswered questions
- are caring for or family/friends of someone who has diabetes
- are interested in diabetes and want to find out more.

It provides you with information about:
- diabetes, the two main types of diabetes and their symptoms
- how to live a healthy, active life with diabetes
- managing the condition
- the short-term and long-term complications associated with having diabetes
- frequently asked questions
- sources of support and further reading.

We hope that this booklet will help you learn more about diabetes and to understand that, if properly managed, having diabetes should not stop you from leading a full and active life.

It is important that the information in this booklet is used together with advice from your healthcare team.
What is diabetes?

Diabetes is a common life-long health condition. There are 2.5 million people diagnosed with diabetes in the UK and up to 500,000 people who have the condition but don't know it.

Diabetes is a condition where the amount of glucose in your blood is too high because the body cannot use it properly. This is because your pancreas does not produce any insulin, or not enough, to help glucose enter your body's cells – or the insulin that is produced does not work properly (known as insulin resistance).

Diabetes develops when glucose can't enter the body's cells to be used as fuel. This happens because either...

...there is no key (insulin) to unlock the door to the cells...

as in **Type 1 diabetes**
Insulin is the hormone produced by the pancreas that allows glucose to enter the body's cells, where it is used as fuel for energy so we can work, play and generally live our lives. It is vital for life.

Glucose comes from digesting carbohydrate and is also produced by the liver. Carbohydrate comes from many different kinds of foods and drink, including starchy foods such as bread, potatoes and chapatis; fruit; some dairy products; sugar and other sweet foods.

If you have diabetes, your body cannot make proper use of this glucose so it builds up in the blood and isn't able to be used as fuel.

There are two main types of diabetes: Type 1 and Type 2.

Type 1 diabetes
Type 1 diabetes develops when the insulin-producing cells in the body have been destroyed and the body is unable to produce any insulin.

...or the key (insulin) is unable to unlock the door properly and/or
...the key (insulin) is there, but the lock doesn't work properly... as in Type 2 diabetes
Insulin is the key that unlocks the door to the body's cells. Once the door is unlocked glucose can enter the cells where it is used as fuel. In Type 1 diabetes the body is unable to produce any insulin so there is no key to unlock the door and the glucose builds up in the blood.

Nobody knows for sure why these insulin-producing cells have been destroyed but the most likely cause is the body having an abnormal reaction to the cells. This may be triggered by a virus or other infection. Type 1 diabetes can develop at any age but usually appears before the age of 40, and especially in childhood.

Type 1 diabetes accounts for approximately 10 per cent of all people with diabetes, and is treated by taking insulin daily by injection or pump, a healthy diet and regular physical activity.

**Type 2 diabetes**

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).

Insulin acts as a key unlocking the cells, so if there is not enough insulin, or it is not working properly, the cells are only partially unlocked (or not at all) and glucose builds up in the blood.

Type 2 diabetes usually appears in people over the age of 40, though in South Asian and black people, who are at greater risk, it often appears from the age of 25. It is also increasingly becoming more common in children, adolescents and young people of all ethnicities.

Type 2 diabetes accounts for approximately 90 per cent of all people with diabetes and is treated with a healthy diet and increased physical activity. In addition to this, medication and/or insulin is often required.
Symptoms of diabetes

Symptoms occur because some or all of the glucose stays in the blood and it isn’t being used as fuel for energy. The body tries to reduce blood glucose levels by flushing the excess glucose out of the body in the urine.

The main symptoms of undiagnosed diabetes can include:
- going to the toilet all the time, especially at night
- increased thirst
- extreme tiredness
- unexplained weight loss
- genital itching or regular episodes of thrush
- slow healing of cuts and wounds
- blurred vision.

In Type 1 diabetes the signs and symptoms are usually very obvious and develop very quickly, typically over a few weeks. The symptoms are quickly relieved once the diabetes is treated and under control.

In Type 2 diabetes the signs and symptoms may not be so obvious, as the condition develops slowly over a period of years and may only be picked up in a routine medical check up. Symptoms are quickly relieved once diabetes is treated and under control.

If you have any of the above symptoms contact your GP. Early diagnosis, treatment and good control of diabetes is vital to reduce the chances of developing serious diabetes complications (see pages 18–20).
Diagnosis

Coming to term with diagnosis
Diabetes does not wait for a convenient time in life to be diagnosed. Often people are already experiencing other stresses and complications in life (work, home relationships or other illnesses for instance) at the time of diagnosis, which can make diagnosis even harder to deal with.

It is not unusual for people to experience some of the following thoughts and feelings:

- I was healthy and now I’m ‘ill’ – it feels unfair and I’m angry/depressed.
- What I eat may be risky and that makes me anxious.
- I have to change my whole life, what if I can’t manage?
- It’s all my fault.
- If I change my lifestyle perhaps my diabetes will go away.
- Complications are inevitable.
- My body is out of control, I feel helpless.

These feelings are very common and part of the process of adapting to having diabetes. Having thoughts like these does not mean that the person is not coping but maybe that they need more information or support and this should lessen once more is learnt about the condition.

Lifestyle changes and choices
Diabetes is serious and should be treated properly. People with diabetes should have access to good, regular healthcare. However, at the same time, the decisions that are made by those with diabetes are central to the management of their condition.

Although diabetes cannot yet be cured it can be managed very successfully. This is likely to involve lifestyle changes that will have enormous health benefits and allow a person to continue their normal day-to-day life. You will read more about how to make lifestyle changes in the following pages.
If you have diabetes, it is a good idea to carry some form of medical ID so that if you are unwell, people will know that you have diabetes. Some people carry a card or wear jewellery that has the international symbol of medicine. Ask your healthcare team or phone Diabetes UK Careline (details on back cover) for further information.

A healthy, active lifestyle

Eating well
Balancing your diet when diagnosed with diabetes can be challenging. Food choices and eating habits are important to help manage diabetes. It should be possible to continue to enjoy a wide variety of foods as part of healthy eating. It is better to make small changes that can be maintained, rather than extreme changes that can’t – there is no need to completely give up your favourite chocolate bar or cream cake, but make sure it is eaten as an occasional treat.

Taking steps to a balanced diet will help control blood glucose levels, blood fats (including cholesterol) and blood pressure.

Ten steps to eating well
1. Eat three meals a day. Avoid skipping meals and spread your breakfast, lunch and evening meal out over the day. This will not only help control your appetite but will also help control your blood glucose levels.