Understanding diabetes

Your key to better health
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How this booklet can help you

This booklet aims to help you if:
- you have just been diagnosed with diabetes
- you are already living with diabetes and want to find out more about it
- you are a parent, carer or friend of someone who has diabetes, or
- you are interested in diabetes for some other reason and would like to find out more.

The booklet will tell you about:
- diabetes, its symptoms and associated health problems
- what causes diabetes and who is most at risk
- how diabetes can be treated, and
- how you can help yourself to stay fit and healthy.

It also explains how Diabetes UK can give you up-to-date information and support, on all aspects of living with diabetes.

The good news about diabetes is that treatments are very effective and the more you know about your condition, the more you can do...
- to help yourself stay healthy
- to lead the sort of life you want to live, and
- to avoid the health problems associated with diabetes in later life.

Important
The information in this booklet should be used together with the personal advice you have received from your doctor or diabetes nurse. You should not make any major change to your treatment plan, diet or level of physical activity without first talking to your doctor or diabetes nurse.
The pancreas

In people with diabetes, the pancreas does not produce enough insulin, or the insulin it produces does not work properly.

What is diabetes?

Diabetes – or to give it its full name, diabetes mellitus – is a common condition in which the amount of glucose (sugar) in the blood is too high because the body is unable to use it properly. This is because the body’s method of converting glucose into energy is not working as it should.

Normally, a hormone called insulin carefully controls the amount of glucose in our blood. Insulin is made by a gland called the pancreas, which lies just behind the stomach. It helps the glucose to enter the cells where it is used as fuel by the body.

We obtain glucose from the food that we eat, either from sweet foods or from the digestion of starchy foods such as bread or potatoes. The liver can also make glucose.

After a meal, the blood glucose level rises and insulin is released into the blood. When the blood glucose level falls – for example, during physical activity – the level of insulin falls. Insulin, therefore, plays a vital role in regulating the level of blood glucose and, in particular, in stopping the blood glucose from rising too high.
There are two main types of diabetes. These are:

- **Type 1 diabetes**, also known as insulin dependent diabetes
- **Type 2 diabetes**, also known as non insulin dependent diabetes.

**Type 1 diabetes**
Type 1 diabetes develops when there is no production of insulin in the body because all of the cells in the pancreas that produce it have been destroyed.

People who develop diabetes under the age of 40, especially in childhood, usually have this type. It is treated by insulin injections and diet, and regular exercise is recommended.

**Type 2 diabetes**
Type 2 diabetes develops when the body can still produce some insulin, though not enough for its needs, or when the insulin that the body produces does not work properly.

This type of diabetes usually appears in people over the age of 40, though often appears before the age of 40 in South Asian and African-Caribbean people. It is treated by diet and exercise, and can also be treated by tablets and/or insulin in addition to diet and exercise.

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**What are the symptoms of diabetes?**

The main symptoms of diabetes are:

- increased thirst
- going to the loo all the time – especially at night
- extreme tiredness
- weight loss
- genital itching or regular episodes of thrush
- blurred vision.

Type 2 diabetes develops slowly and the symptoms are usually less severe. Some people may not notice any symptoms at all and their diabetes is only picked up in a routine medical check up. Some people may put the symptoms down to ‘getting older’ or ‘overwork’.

Type 1 diabetes develops much more quickly, usually over a few weeks.

In both types of diabetes, the symptoms are quickly relieved once the diabetes is treated. Early treatment will also reduce the chances of developing the serious health problems described on page 16.
Who gets diabetes and what causes it?

Diabetes is a common health condition. About 1.4 million people in the UK are known to have diabetes – that’s about three in every 100 people. And for every person who knows that they have the condition, there is probably another person with diabetes who does not yet know. Over three-quarters of people with diabetes have Type 2 diabetes.

Although the condition can occur at any age, it is rare in infants and becomes more common as people get older.

The people most at risk of developing Type 2 diabetes are:
- people with a family history of diabetes
- people aged between 40 and 75
- people of Asian or African-Caribbean origin
- people who are very overweight and have had a sedentary lifestyle
- women who have had a gestational diabetes.

Type 1 diabetes
Type 1 diabetes develops when the insulin-producing cells in the pancreas have been destroyed. Nobody knows for sure why these cells have been damaged but the most likely cause is an abnormal reaction of the body to the cells. This may be triggered by a viral or other infection. This is the type of diabetes that generally affects younger people. Both sexes are affected equally.

Type 2 diabetes
Type 2 diabetes used to be called 'maturity onset' diabetes because it usually appears in middle-aged or elderly people, although it does occasionally appear in younger people. The main causes are that the body no longer responds normally to its own insulin, and/or that the body does not produce enough insulin.

People who are overweight are particularly likely to develop Type 2 diabetes. It tends to run in families and is more common in Asian and African-Caribbean communities.

Some people wrongly describe Type 2 diabetes as 'mild' diabetes. There is no such thing as mild diabetes. All diabetes should be taken seriously and treated properly.

Other causes of diabetes
There are some other causes of diabetes, including certain diseases of the pancreas, but they are all very rare. Sometimes an accident or an illness may reveal diabetes if it is already there, but they do not cause it.

...and some things that do not cause diabetes:
- eating sweets or the wrong kind of food does not cause diabetes
- stress does not cause diabetes although it may make the symptoms worse in people who already have the condition
- you cannot catch diabetes from somebody, nor can you give it to anyone.