



NHS Tayside Diabetes Managed Clinical Network Patient Information Leaflet

Your Guide to Type 1 Diabetes

Diabetes is a common health condition.

About 1.4 million people in the UK are known to have diabetes that is about three in every 100 people.

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

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.

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

Type 1 diabetes

Type 1 diabetes develops usually over a few weeks, and symptoms are normally very obvious. The condition 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.

The condition is treated by insulin injections and diet and regular exercise is recommended. People with untreated or poorly controlled Type 1 diabetes will lose weight because fat tissue and protein, mainly from muscle, are broken down as an alternative energy source. This can lead to vomiting, dehydration and drowsiness. If insulin is not given diabetes ketoacidosis coma will develop and could prove to be fatal.

Type 1 diabetes can be triggered by a viral or other infection. This type of diabetes more commonly affects younger people but it can happen at any age.

Symptoms of Diabetes

The main symptoms of diabetes are

- Increased thirst
- Going to the toilet all the time - especially at night
- Extreme tiredness
- Weight loss
- Genital itching or regular episodes of thrush
- Blurred vision.

Although Type 1 diabetes cannot be cured it can be treated very successfully.

Knowing why people with diabetes develop high blood sugar levels will help you to understand how insulin works.

Glucose comes from the ingestion of sugary or starchy foods. If someone has diabetes they have high levels of glucose or sugar circulating in their blood stream that isn't used by cells or turned into energy, this is why people with untreated diabetes often feel tired. The unused glucose passes into the urine, pulling water with it. This is why people with untreated diabetes pass large amounts of urine and are extremely thirsty.

Glucose levels are usually controlled by a hormone called insulin. Insulin is made in a gland close to the stomach called the pancreas. Diabetes develops because there is no insulin being made by the pancreas.

Treatment for Type 1 diabetes

People with Type 1 diabetes need injections of insulin for the rest of their lives. They also need to eat a healthy diet that contains the right balance of foods. Insulin cannot be readily taken by mouth because it is destroyed by the digestive juices in the stomach. Insulin regimes are tailored to meet individual needs. This is why some people may need 2 injections per day and others may need up to 4 or more.

Self testing

The main aim of insulin treatment is to achieve near normal sugar levels 4 –7 mmols before meals. Blood sugar testing is a tool, which can be used to monitor how well your insulin is working. This will enable you to adjust your insulin and diet according to your daily routine.

Blood ketone testing is a tool, which can be used to monitor, prevent and identify the development of diabetes ketoacidosis.

Education and support will be given by your diabetes specialist team to help you with self-testing.

Injecting insulin

Areas used for injecting insulin are upper thighs, abdomen or buttocks. You should not inject your insulin in the same place all the time, but move to another area regularly. Needles should not be reused. Your insulin may not be absorbed properly and you could develop fatty lumps, also known as Lipohypertrophy.

Use “BD Safe clip” which is available on prescription to clip off needles. The remaining part of needle should be placed in hard plastic disposable container. The container should be secured with tape then disposed of safely with household waste.

Education and support will be given by your diabetes specialist team to help you with injecting insulin.

Useful Information about insulin

- Store your insulin in a fridge furthest away from freezer compartment.
- Store all insulin currently in use at room temperature for no longer than 4 weeks.
- Do not place cartridge pen in a fridge.
- Do not leave insulin near a fire, radiator or in strong sunlight.

What is Hypoglycaemia?

Hypoglycaemia or hypo is a low blood sugar level which is less than 4 mmols.

Symptoms include:

- Sweating
- Dizziness
- Trembling
- Hunger
- Confusion

Common causes are:

- Delayed or missed meals
- Too large a dose of insulin
- Extra exercise or activity

- Excessive alcohol intake

Treatment of Hypoglycaemia

Take 10 -15 grams of quick acting sugar such as 50mls lucozade, 150mls Full Sugar Coke or 4 jelly babies. Wait 15 minutes and if you are feeling better take a starchy snack such as a banana, sandwich or your next meal. It is better to check your blood sugar if you can, to make sure you are recovering from your hypo.

Always carry your hypo treatment with you.

What is Hyperglycaemia?

Hyperglycaemia is a high blood sugar level

Symptoms include

- Increased thirst
- Going to the toilet all the time - especially at night
- Extreme tiredness
- Weight loss

This can happen if you have not taken enough insulin or missed your dose or are unwell. If left untreated this can lead to diabetes ketoacidosis.

Education and support will be given by your diabetes specialist team to help you understand this in more detail.

Reducing the risk of serious health problems

People with diabetes have a higher chance of developing certain serious health problems, including heart disease, stroke, high blood pressure, circulation problems, nerve damage, and damage to the kidneys and eyes. The risk is particularly high for people with diabetes who are also very overweight, who smoke or who are not physically active.

You will greatly reduce your risk of developing any of these complications by controlling your blood sugar and blood pressure levels, and by eating healthily and doing regular physical activity.

Regular medical check-ups

In the last 10 to 20 years, the care for people with diabetes has improved dramatically. One of the most important developments has been improved methods of screening which will help your doctor to pick up any health

problems at an early stage so they can be treated more successfully. This is why having regular medical check-ups is important.

Help yourself to stay fit and healthy

If you have diabetes, you will have to make some changes to your way of life. However, by sticking to your treatment, monitoring your condition and following a generally healthy lifestyle, you should be able to continue your normal, day-to-day life and take part in activities you have always enjoyed.

Smoking

If you smoke - Quit Now. Smoking is particularly dangerous for people with diabetes as it greatly increases the chance of developing a serious health problem. If you smoke, it is very important that you quit now.

Some Other Useful Information

Special "Diabetic" foods are not recommended. They are expensive and may cause diarrhoea.

Prescriptions are free of charge. Prescription exemption forms are obtainable from your GP.

You need to inform the DVLA that you are on insulin therapy. Everyone with diabetes is legally obliged to contact and inform their insurance company that they now have diabetes. Otherwise your policy may not be valid.

The Tayside Diabetes website www.diabetes-healthnet.ac.uk contains a range of other patient information leaflets.

Diabetes UK

Diabetes UK can provide information and advice on all aspects of diabetes. Contact the Diabetes UK Scotland Careline on Tel 0845 120 2960 or carelinescotland@diabetes.org.uk.

There are local Diabetes UK Support Groups in Dundee, Angus and Perth & Kinross. Further information about where and when these are held can be found on www.diabetes-healthnet.ac.uk in the Patient Information Section.

Diabetes Specialist Nurse Contact Numbers

(During working day hours only Monday to Friday 9am – 5pm)

Dundee Team Tel: 01382 632293

Perth Team Tel: 01738 473476

Angus Team Tel: 01241 447811

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