

# Your guide to Type 1 Diabetes

Patient Information Leaflet

## DIABETES IS A COMMON HEALTH CONDITION

**Diabetes mellitus** is a condition in which the amount of glucose 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, cereals) 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 diabetic 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 TYPE 1 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 glucose levels will help you to understand how insulin works.

Glucose comes from the digestion of sugary and starchy foods (carbohydrates). If someone has diabetes they have high levels of glucose 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. Type 1 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 glucose levels of 4 –7 mmols before meals. Blood glucose 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 diabetic ketoacidosis.

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

See NHS Lanarkshire patient information leaflets “Blood Glucose Monitoring” and “Ketoacidosis” for more information – see the **[Diabetes MCN website](#)**.

## 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 insulin **pens** currently in use 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 glucose level which is less than 4 mmols.

### Symptoms include: Common causes are:

- ❖ Sweating
- ❖ Delayed or missed meals
- ❖ Dizziness
- ❖ Too large a dose of insulin
- ❖ Trembling
- ❖ Extra exercise or activity
- ❖ Hunger
- ❖ Excessive alcohol intake
- ❖ Confusion

## TREATMENT OF HYPOGLYCAEMIA

### **Always carry your hypo treatment with you.**

Take 20 grams of quick acting glucose i.e. approx 100mls of Original lucozade (about 1/3 small bottle or small glass), approx 150-200mls of ordinary cola or fruit juice (about 1/2 a can or large glass of cola; small carton of fruit juice), 4-6 glucose tablets or 3-4 jelly babies. Wait approx 15 minutes and if you are feeling better, take a starchy snack such as two digestive biscuits, a sandwich, large glass of milk, a yoghurt, a banana or your next meal. It is recommended to recheck your blood glucose levels to make sure you are recovering from your hypo.

See NHS Lanarkshire patient information sheet "Having a Hypo" for more information on the **[Diabetes MCN website](#)**.

## WHAT IS HYPERGLYCAEMIA?

### **Hyperglycaemia is a high blood glucose 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 diabetic ketoacidosis. See leaflet on this subject on the **[Diabetes MCN website](#)**.

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 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 glucose and blood pressure levels, by eating healthily and by 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.

For further information go to: **[Diabetes MCN website](#)**

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