



# Self-care guide for people with diabetes



Supported by an unrestricted grant from



(i)	When the diagnosis is diabetes
?	What is diabetes?04
	What are the signs and symptoms of diabetes?04
72	What are the different types of diabetes?
	Is a 'hypo' the same as low blood sugar?06
	What are high blood sugar levels?
	Measuring blood sugar levels09
	What type of diet should I eat?10
0	Should I worry about my cholesterol level?13
<b></b>	What about sport and exercise?13
	Should I reduce my alcohol intake?
	How often should I have my eyes tested?14
	What types of medication will I need?14
	Will I have to pay for my medications?15
	How does diabetes affect driving?16



#### When the diagnosis is diabetes

### Get answers to your questions

The aim of this booklet is to:

- help answer your questions about diabetes;
- explain the different types of diabetes; and
- outline how you can effectively manage your diabetes.

### How does someone get diabetes?

You develop diabetes when your body can't use glucose (sugar) properly. Instead of burning up the sugar through your everyday activities, the average amount of sugar in your blood rises.

# What are the complications of diabetes?

If this abnormally high sugar level is not treated it can harm different parts of the body. The complications diabetes can cause include damage to:

- the eyes;
- kidneys;
- heart:
- blood vessels; and
- nerves.

If diabetes is detected early, it can be treated and the risk of developing serious problems can be greatly reduced.

### How many people in Ireland have diabetes?

It is estimated that 200,000 people in the Republic of Ireland have diabetes. This number is expected to increase because our population is growing and

ageing, and obesity rates are rising. If you are older and overweight, you are at increased risk of developing type 2 diabetes.



#### What is diabetes?

Diabetes is a condition that makes it difficult for the body to use the glucose (sugar) in the blood. The body normally produces a hormone called insulin. Insulin is produced by the pancreas. The pancreas is an organ found in the tummy area quite close to the stomach. Insulin allows the glucose in our food to be taken from the blood and used by the body for energy.

People with diabetes either don't have enough insulin or the insulin that their pancreas produces does not work effectively.

This means the body cannot move the glucose out of the

blood, so the sugar levels in the blood remain high.

This extra glucose in the blood causes significant problems for the body's functions.

## What are the signs and symptoms of diabetes?



You may be diagnosed after you go to your GP (family doctor) because:

- you feel tired or ill;
- you have been losing weight;
- you have an **infection** that is slow to clear up;
- you are always thirsty the increased glucose in your blood brings more water through the kidneys to be passed as urine causing thirst and dehydration;
- your vision is blurred extra glucose can be absorbed into the eye and cause blurred vision.



#### What are the different types of diabetes?

There are a few different types of diabetes. The most common are 'type 2 diabetes mellitus' and 'type 1 diabetes mellitus'. Approximately 9 out of 10 people with diabetes will have type 2.

Women can sometimes get diabetes when they are pregnant. This is called 'gestational diabetes' because it usually only lasts during the pregnancy.

#### What is 'type 1 diabetes mellitus'?

When someone has type 1 diabetes:

their pancreas has stopped producing insulin.

The exact cause of this condition is still unknown. It usually occurs in people under 35 years of age, but there are exceptions to this.

### What is 'type 2 diabetes mellitus'?

When someone has type 2 diabetes, the pancreas still produces some insulin, but:

- the pancreas is not producing enough insulin to meet the body's needs; or
- the insulin that is produced is not working very well.

Older people are more likely to develop type 2 diabetes, but there are exceptions to this.

### How is 'type 1' diabetes treated?

People with this type of diabetes need to inject insulin or use an insulin pump.

### How is 'type 2' diabetes treated?

There are various ways to treat type 2 diabetes. The choice depends on many factors and differs between individuals. Treatment may include any of the following combinations:

- diet and exercise;
- diet, exercise and tablets;
- diet, exercise, tablets and insulin;
- diet, exercise and insulin.

### How is 'gestational diabetes' treated?

In gestational diabetes, the extra demands of pregnancy mean that the mother does not have enough insulin to meet her body's needs.

This type of diabetes is first treated by controlling the quantity and type of the mother's food and drink. If this is not enough to treat the condition, the mother may be given extra insulin as an injection.

It is vital for the baby's health that the mother does not have high blood sugar levels because the extra sugar supplies can cause the baby to grow too big.

#### Is a 'hypo' the same as low blood sugar?



Hypoglycaemia or a 'hypo' is when the glucose level in the blood ('blood sugar level') drops below the normal range. Below normal is when it is **less** than 4mmol/L (70 mg/dl).

Some tablets and insulin can cause a hypo especially if:

- meals are delayed; or
- they are taken after unusually strenuous physical activity.

### What are the 'hypo' warning signs?

If you have a 'hypo' you may feel symptoms such as:

- sweating;
- shaking;
- dizziness; and
- blurred vision.

# What should I do if I think I'm getting a hypo?

If you feel your blood sugar going low, you should treat it as soon as possible. Never delay treatment of a low sugar level.

A hypo can be corrected by taking something sweet to drink or eat, such as (for an adult):

- 100mls of Lucozade; or
- three glucose sweets.

If you will not be eating a proper meal within the next hour, you should eat some carbohydrate (starchy) food like a cereal bar or sandwich or follow the instructions that your diabetes team gives you. This will make sure that your blood sugar does not go low again.

Always tell your doctor or diabetes nurse about any hypos, unless you know why it happened, so that they can decide if your medication needs to be altered.

### How can I prevent 'hypos'?

- Try not to miss a meal.
- Try to eat carbohydrate at every meal (for example, pasta, bread or rice).
- If you exercise, eat a snack and test your glucose levels every few hours – a 'hypo' can occur even a significant time after exercising.
- Always carry some form of sugar with you such as glucose sweets or drinks, such as Lucozade, in case you experience a hypo.

It is very important to carry identification that shows you have diabetes, such as an identification bracelet, which you can buy on www.diabetes.ie.



#### What are high blood sugar levels?

'Hyperglycaemia' or high blood sugar levels are when the blood glucose level is above the target set for you.

In the short term, high blood sugars will leave you feeling unwell and tired.

If you have high blood sugars for a long time, it can lead to:

- eye disease;
- heart problems; and
- foot ulcers.

Diabetes is also associated with high blood pressure.

If your blood glucose levels are constantly high, you should contact your doctor.

### What causes high blood sugar levels?

People with diabetes may have high blood glucose levels because:

- they have not taken their insulin;
- they have an infection or illness; or
- they have eaten too much food.

Even if you cannot eat, illness can cause your blood sugar level to rise.

#### Will I need more insulin if I am ill?

If you are ill, you should check your blood glucose levels more frequently and never forget to take your insulin. You may need to increase your insulin during illness.

If your blood glucose level is higher that 15 mmols (270 mg/dl), for more than one hour, check your blood or urine for ketones. If ketones are present you should follow your diabetes team instructions or contact them.





#### Measuring blood sugar levels

# Why do I need to measure the sugar level in my blood?

The best way to monitor your diabetes is by measuring your blood sugar levels. You do this with a finger-prick blood test.

If you find it difficult to do finger-prick blood tests, urine tests are another way of testing sugar levels. However, urine tests are not as accurate, but they are appropriate and adequate for some people.

### What is my ideal blood sugar level?

Target blood sugar levels vary from person to person and you should ask your diabetes team to set a personal target for you. But generally the ideal target blood sugar levels should be:

- less than 10 mmol/l (180 mg/dl); or
- less than 8 mmol/s (145 mg/dl) in younger people.

Ask your doctor or nurse what your targets are.

What are my target blood sugar levels?

Fasting	
Before Meals	
After Eating	

### When should I do my blood tests?

You should test your blood sugar level:

- when you wake in the morning; and
- before meals.

Your tests will tell you how well diet, medication and exercise are working together to control your diabetes. They also provide useful information for your doctor.

#### How often should I do my blood tests?

Generally you should measure your glucose levels between one and four times a day. Your doctor or nurse will have the best advice on how often you need to test.

During illness or if you change your lifestyle, you will need to test more often.

#### What type of diet should I eat?



The ideal diet for people with diabetes is very much like the ideal diet for everybody else. A healthy diet is an essential part of treatment for people with diabetes and therefore needs to be followed for life.

Healthy diets are:

- low in refined sugar;
- low in saturated fat;
- high in fibre, vitamins and minerals.

If you are overweight it is essential that you lose weight by changing your diet and exercising. This helps to improve your diabetes control because the insulin you produce works better and there are less demands on your body. Anyone diagnosed with diabetes should be given an appointment with a dietician to help them with their diet.

### Are there any tips for healthy eating?

#### Eat regular meals

Eat regular meals every day, especially breakfast.

Check with your diabetes team if your insulin regime means you need to take a snack before going to bed at night.

#### Eat starchy foods

As the main part of each meal, eat a starchy food like one of the following:

- bread;
- cereal;
- potato;
- pasta; or
- rice.

Try to eat the same amount of starchy foods at your meals each day. Choose high fibre foods like:

- Weetabix;
- porridge;

- Bran Flakes;
- wholemeal breads;
- wholegrain rice; or
- pastas.

### Don't take in too much sugar

Limit the intake of sugar and sugary foods. When you do take them as a treat, eat them with your meal. Use an artificial sweetener instead of sugar in hot drinks. It is best to avoid or take in moderation the following foods:

- sugar;
- chocolate and sweets;
- honey and glucose;
- regular jams and marmalades:
- cakes and sweet biscuits; and
- regular squash and sugary fizzy drinks.

#### Keep your fat intake low

Choose lean cuts of meat, remove visible fat and use low-fat methods of cooking like: oven baking, stewing, roasting, grilling, boiling, poaching, steaming or microwaving.

- Choose low-fat dairy products.
- Use low-fat spread instead of butter or margarine.
- Limit the amount of spread used.
- Use low-fat milk instead of regular milk.

#### Eat oily fish

Eat oily fish at least twice a week. Include fish like:

- mackerel;
- salmon;
- sardines;
- trout:
- fresh or frozen tuna: and
- herrings.

#### Eat vegetables and fruit

Eat plenty of vegetables and fruit. Aim to have at least five portions each day – spread out over the day.

#### Reduce your salt

You should not add salt to your food at the table and you should reduce your intake of salty foods like:

- processed meats;
- packet sauces;
- gravies;
- smoked fish;
- crisps; and
- nuts.

#### 'Diabetic' foods are not useful

You are not advised or recommended to buy special diabetic foods like sweets, chocolate and biscuits. This is because these foods are high in fat and therefore high in calories.



#### Should I worry about my cholesterol level?

It is important to control your cholesterol level. A high cholesterol level may speed up the hardening of the arteries and increase your risk of a heart attack.

A healthy low-fat diet with plenty of high-fibre starch helps to control your cholesterol level.

According to European guidelines:

 people with diabetes should aim for a cholesterol level of below 4.5 mmol/l. However, this varies from person to person.

Ask your doctor to set a personal cholesterol target for you. Your doctor may prescribe some medication to help control your cholesterol level.

#### What about sport and exercise?



Exercise is important to help you manage your diabetes. Exercise helps you to:

- lose weight;
- lower your blood pressure;
- reduce your blood sugar levels: and
- allow your insulin and tablets to work more effectively.

It is always useful to increase your level of movement. Always check with your doctor or nurse before starting a new exercise routine. You can ask your diabetes team to help you to develop an exercise plan.



#### Should I reduce my alcohol intake?

Alcoholic drinks contain a lot of calories – almost as many as fats – and very few or no nutrients. You must be careful about how much you drink.

You don't have to give it up, but remember that alcohol:

- lowers yourblood sugar; and
- hides the signs of hypoglycaemia (low blood sugar).

It is recommended that:

- women have fewer than two standard drinks of alcohol a day; and
- men have fewer than three standard drinks of alcohol a day.
- It is recommended to have two or three alcoholfree days each week.

A standard drink is a regular pub measure.

#### How often should I have my eyes tested?



When you have diabetes you should have your eyes checked every year by the doctor - including a full examination of the back of the eye.

This is different to a vision test for glasses.

#### What types of medication will I need?



People with type 1 diabetes will need to take regular injections of insulin or use an insulin pump.

People with type 2 diabetes can be treated by exercise and diet.

However, some people may need tablets and, or, insulin.

There are many different types of tablets available for the treatment of type 2 diabetes. Many of these tablets work differently from each other and often more than one type of tablet is used.

Your doctor will prescribe a treatment which is best suited to you.

Your medications help to control your blood sugar levels in combination with a healthy diet and regular activity.



#### Long Term Illness Scheme (LTI)

Diabetes is covered under the LTI scheme for people resident in the Republic of Ireland. This means that all medication for diabetes and related conditions is available to you free of charge under this scheme.

This includes medication for high blood pressure and high cholesterol and glucosetesting strips.

#### How to apply for the LTI

If you want to register for the LTI scheme:

- ask your doctor to complete the LTI application form; and
- submit this form to the local Health Service Executive office. Your doctor should be able to tell you where the local office is located.

When you are registered under the LTI scheme, you will receive an LTI book in the post. It shows your registration number. Registered patients may get their medication from any pharmacy.



#### How does diabetes affect driving?

If you take tablets or insulin for diabetes, you must inform the driving licence authority that you have diabetes. You can find the number for your local driving license authority in the telephone book.

# Do I need to tell my car insurance company that I have diabetes?

You **must** inform your car insurance company that you have diabetes.

If you don't it may mean you are at risk of driving without insurance.

Your car insurance will not cost more when you have diabetes.



#### **Acknowledgements**

Ms Helen Burke,

Advanced Nurse Practitioner in Diabetes

Ms Demelza Dooner, Clinical Nurse Specialist in Diabetes

Ms Anna Clarke,

Diabetes Federation of Ireland, Health Promotion and Research Manager

The content of this booklet reflects the guidelines of the Diabetes Federation of Ireland at the time of print.

The production of this booklet was made possible by an unrestricted educational grant from Merck Sharp & Dohme Ireland (Human Health) Ltd.

This booklet can be downloaded from www.diabetes.ie free of charge.

#### Notes

#### Notes

#### **Get more information**

For more information on diabetes in your own language, go to the website of the Diabetes Association from your homeland or visit www.idf.org

You can use the internet at any public library.



# Helpline 1850 909 909 www.diabetes.ie

**Diabetes Federation of Ireland** 76 Lower Gardiner Street, Dublin 1

Tel: 01 836 3022 Fax: 01 836 5182 Helpline: 1850 909 909 E-Mail: info@diabetes.ie

