



Torkard Hill
Medical Centre

Type 2 Diabetes

Patient Information Leaflet:

What happens next?

Now you are diabetic you will receive a first telephone call with the Practice Nurse to discuss the diagnosis, giving advice and support regarding lifestyle changes and diabetic medication. The Nurse will inform you of your current HBA1c (blood sugar level) and target level that needs to be achieved to reduce the risks of you developing the complications of diabetes. Once you have your initial consultation your next blood test will be within 3 to 6 months' time.

You will then have an annual review for blood pressure, foot check and blood tests going forward which you will invited for by the surgery, usually around your birthday month. During the annual review we will also carry out two tests to assess your kidney function. One tests your urine for protein, a sign of possible kidney problems. The second is a blood test to measure how well your kidneys are working. Kidney disease is more common in people with diabetes and high blood pressure. Therefore, please ensure you bring a first morning urine sample to your annual review so we can perform this check.

For more information on Type 2 diabetes please see the following enclosed information.

Diagnosis & what are the symptoms of diabetes?

Type 2 diabetes is diagnosed using a blood test called HbA1c, people with a HBA1c level of 48mmol/mol or higher are diagnosed as diabetic. It can cause symptoms such as excessive thirst, needing to pass urine a lot, tiredness, unintentional weight loss, genital thrush, and blurred vision. No individual is the same and not everyone gets symptoms. In fact, 6 out of 10 people have no symptoms when they're diagnosed with type 2 diabetes.

Type 2 diabetes, the most common type of diabetes, is a disease that occurs when your blood glucose, also called blood sugar, is too high. Blood glucose is your main source of energy and comes mainly from the food you eat. Insulin, a hormone made by the pancreas, helps glucose get into your cells to be used for energy. In type 2 diabetes, your body doesn't make enough insulin, or the insulin produced is not very effective. Due to this, too much glucose then stays in your blood, and not enough reaches your cells.

Who is more likely to develop Type 2 diabetes?

- **Your risk increases with age** - You're more at risk if you're white and over 40 or over 25 if you're African-Caribbean, Black African, or South Asian.
- **Family history** - You're two to six times more likely to get type 2 diabetes if you have a parent, brother, sister, or child with diabetes.
- **Ethnicity** - Type 2 diabetes is two to four times more likely in people of South Asian descent and African-Caribbean or Black African descent.
- **High blood pressure** - You're more at risk if you've ever had high blood pressure.
- **Carrying extra weight** - You're more at risk of type 2 diabetes if you're carrying extra weight, especially if this weight is around your middle.
- **Smoking** - Smoking is associated with a higher risk of type 2 diabetes, and also increases the risk of other health conditions such as heart disease and cancer.
- **Other risks** - such as Gestational diabetes, Polycystic Ovary Syndrome (PCOS), Mental health condition, Sedentary lifestyle, drinking too much alcohol, and disturbed sleep (Not getting enough sleep, or sleeping for too long have been associated with an increased risk)

What are the complications of diabetes?

These are long-term problems that can develop gradually and can lead to serious damage if they go unchecked and untreated.

- **Eye problems (retinopathy)** - Some people with diabetes develop an eye disease called diabetic retinopathy which can affect their eyesight. If retinopathy is picked up – usually from your annual diabetic eye screening test - it can be treated, and sight loss prevented.
- **Foot problems** - Diabetes foot problems are serious and can lead to amputation if untreated. Nerve damage can affect the feeling in your feet and raised blood sugar can damage the circulation, making it slower for sores and cuts to heal.
- **Heart attack and stroke** - When you have diabetes, high blood sugar for prolonged period can damage your blood vessels.
- **Kidney disease (Diabetic nephropathy)** - Diabetes can cause damage to your kidneys over a long period of time making it harder to clear extra fluid and waste from your body. This is caused by high blood sugar levels and high blood pressure.

- **Nerve damage (neuropathy)** - Some people with diabetes may develop nerve damage caused by complications of high blood sugar levels. This can make it harder for the nerves to carry messages between the brain and every part of our body so it can affect how we see, hear, feel, and move.
- **Gum disease and other mouth problems** - Too much sugar in your blood can lead to more sugar in your saliva. This brings bacteria which produces acid which attacks your tooth enamel and damages your gums. The blood vessels in your gums can also become damaged, making gums more likely to get infected.
- **Related conditions, like cancer** - If you have diabetes, you're more at risk of developing certain cancers. And some cancer treatments can affect your diabetes and make it harder to control your blood sugar.
- **Sexual problems in women** - Damage to blood vessels and nerves can restrict the amount of blood flowing to your sexual organs so you can lose some sensation. If you have high blood sugar, you are also more likely to get thrush or a urinary tract infection.
- **Sexual problems in men** - The amount of blood flowing to your sexual organs can be restricted which may cause you to have difficulty getting aroused. It may lead to erectile dysfunction, sometimes called impotence.

How can I manage my type 2 diabetes?

Losing weight if you are overweight and increasing your levels of physical activity are ways to help to control your blood sugar levels. Making healthier food choices and being more active are both positive ways to start making these changes. You may have heard that diabetes can be controlled by diet. There is no such thing as a special diet exclusively for people with diabetes. There are a lot of different ways to lose weight – but there's no one-size-fits-all diet.

It starts with finding a way to eat fewer calories than you need. A calorie (or kcal) is a unit of energy, which is in the food and drink we consume. Your body uses energy for everything we do – from breathing and sleeping to exercising. When you eat, you're replacing the energy you've used, which helps you to maintain a healthy weight. Government recommendations are that men need around 2,500 kcal a day to maintain a healthy weight, and women need around 2,000kcal a day. But most people need different amounts of calories based on how their bodies work, how active they are, and any weight management goals.

Evidence shows that the best approach is the one that you're likely to stick to. So, the key is to find a plan that you enjoy and fits in with the rest of your life. Everyone's different and what works for some may not for others. Losing one to two pounds a week is a safe and realistic target for most people.

If you have a lot of weight to lose, ask the GP if weight-loss surgery is a possibility. There are different types of weight-loss or bariatric surgery. They aim to make you feel fuller sooner and eat less. Bariatric surgery can be a very effective way of losing weight and putting type 2 diabetes into remission for some people.

Here are some diet plans that people follow to reduce their glucose levels:

Low-carb diet plan - Low-carb eating is when you reduce the total amount of carbs you consume in a day to less than 130g. To put this into context, a medium-sized slice of bread is about 15 to 20g of carbs, which is about the same as a regular apple. On the other hand, a large jacket potato could have as much as 90g of carbs, as does one litre of orange juice. Using the 'Carbs & Cals' book or app is a great way of tracking your carbohydrates.

Mediterranean diet plan - There's also evidence to show that the Mediterranean-style diet can promote weight loss and improve blood glucose management in people with type 2 diabetes. This is a diet largely based on plant foods and therefore includes a lot of fruits and vegetables, beans and pulses, nuts and seeds, wholegrains, and olive oil. It also includes some dairy (milk and yogurts), lean protein like chicken, eggs, and fish, in moderation. Red meat, refined carbohydrates, sugar-sweetened beverages, and processed foods are usually only consumed in much smaller amounts, and wine is included in moderation. It is also recommended that you reduce salt intake (<6 g/day), eat two portions of oily fish each week, eat more wholegrains, fruit and vegetables, fish, nuts, and legumes (pulses). Also limiting alcohol intake to <14 units a week.

Lower-calorie diet plans - (like 1,200 or 1,500 calories a day) - is both calorie and carb counting, aim for a balanced diet that contains at least five portions of fruit and veg per day. Diabetes Org website has an example of a diet plan to follow

****Please speak to your diabetes health care team before making significant changes to your diet****

This is especially important if you treat your diabetes with insulin or other diabetes medications that increase the risk of hypos. Reducing your carbohydrate intake and changes to your body weight may mean your medication needs adjusting.

Other diets: -

A low GI diet can help you manage your blood sugar levels, but the evidence for people with diabetes losing weight is not very strong.

There are other popular diets, like **intermittent fasting (such as the 5:2 diet)** and the Paleo diet. Unfortunately, there isn't enough strong evidence to say these are effective for weight loss in people with diabetes either.

Commercial weight-loss programmes - Some people feel that they need more support and choose to join a commercial weight-loss programme. These usually involve calorie-controlled eating plans or meal replacements, like milkshakes or bars.

See Diabetes Org for more information on diet plans and recipe ideas:

<https://www.diabetes.org.uk/guide-to-diabetes/enjoy-food/eating-with-diabetes/whats-your-healthy-weight/lose-weight>

The NHS Low Calorie Diet Programme

The NHS is delivering a new programme which provides a low-calorie diet treatment for people who are overweight and living with type 2 diabetes. The NHS Low Calorie Diet Programme is based on two studies. The Diabetes UK-funded 'DiRECT' trial saw almost half of those who went on a low-calorie diet achieve remission of their Type 2 diabetes after one year. A quarter of participants achieved a 15kg or more weight loss, and of these, 86% put their Type 2 diabetes into remission.

Eligible participants are offered low calorie, total diet replacement products – for example, soups and shakes which add up to around 900 calories per day – for up to 12 weeks. During this time participants will replace all normal meals with these products.

Alongside this, participants will receive support and monitoring for 12 months including help to re-introduce real food after the initial 12-week period. Depending on where the service is being delivered, this support and monitoring will either be:

- group based
- one-to-one, or
- digitally/remotely via an app, online or over the phone.

The NHS Low Calorie Diet Programme isn't suitable for everyone and there are some eligibility requirements that people must meet to be involved. These include that the individual must:

- be aged 18 – 65 years,
- have a diagnosis of type 2 diabetes within the last 6 years, and
- have a BMI over 27 kg/m² (where individuals are from White ethnic groups) or over 25 kg/m² (where individuals are from Black, Asian and other ethnic groups)

Please speak to the Practice Nurse if you would like to be referred for this so we can ensure you suit the criteria

Can exercise help with lowering my blood sugar?

Being active lowers your blood sugar level - Aiming for at least 150 mins per week of moderate to vigorous physical activity, over at least 3 days. You can be active anywhere if what you're doing gets you out of breath. This could be fast walking, climbing stairs, or doing more strenuous housework or gardening.

There are many benefits of being active when you have diabetes. Moving more can:

- Help the body use insulin better by increasing insulin sensitivity.
- Help with weight loss.
- Can be beneficial for the mind as well as the body - exercise releases endorphins, which you could think of as happy hormones. Being active is proven to reduce stress levels and improve low mood.
- Can help people with type 2 diabetes improve their HbA1c. In some cases, this can help people with the condition go into remission.

What medicines do I need to treat my type 2 diabetes?

There are many types of medicine for type 2 diabetes. It can take time to find a medicine and dose that's right for you. Metformin is the most common medicine for type 2 diabetes, and you'll usually be offered a medicine called Metformin first.

Metformin comes as tablets you take with or after meals. Type 2 diabetes is a condition where the body does not make enough insulin, or the insulin that it makes does not work properly. This can cause high blood sugar levels (hyperglycaemia). Metformin lowers your blood sugar levels by improving the way your body handles insulin.

Common side effects of Metformin include feeling or being sick and diarrhoea. If this happens to you, your doctor may suggest trying a different type called slow-release Metformin.

If Metformin does not work well enough on its own, you cannot take it or you have other health problems, you may need to take other medicines alongside or instead of Metformin.

How to get free prescriptions for diabetes medicine

If you take diabetes medicine, you're entitled to free prescriptions for all your medicines. To claim your free prescriptions, you'll need to apply for an exemption certificate. This is known as a PF57 form.

To do this:

- fill in a form at your GP surgery
- you should get the certificate in the post about a week later – it'll last for 5 years
- take it to your pharmacy with your prescriptions

Save your receipts if you have to pay for diabetes medicine before you receive your exemption certificate. You can claim the money back if you include the receipts along with your completed PF57 form.

Book your free flu vaccine (September till March)

People with diabetes are at greater risk of severe illness if they get flu. It's also really important to get your coronavirus vaccine and boosters when you're invited.

What is Diabetic Retinopathy Screening?

The nurse will ensure your referral has been made for diabetic retinopathy screening, which will be an annual screening test now that you are diabetic. It is vital that you have your eyes checked regularly. Damage to the retina at the back of the eye (retinopathy) is a common complication of diabetes. If left untreated, it can become worse and cause some loss of vision, or total loss of vision (severe sight impairment) in severe cases. Good control of blood sugar (glucose) and blood pressure slows down the progression of retinopathy. Treatment with a laser, before the retinopathy becomes severe, can often prevent loss of vision.

Diabetes, Foot Care and Foot Ulcers

Foot ulcers are more common if you have diabetes because one or both of the following complications develop in some people with diabetes: - Reduced sensation of the skin on your feet and narrowing of blood vessels (arteries) going to the feet.

What increases the risk of developing foot ulcers?

- If you have reduced sensation to your feet. The risk of ulcers increases the longer you have diabetes and the older you are. The risk also increases if your diabetes is poorly controlled. This is one of the reasons why it is very important to keep your blood sugar (glucose) level as near normal as possible.
- If you have narrowed blood vessels (arteries). The risk of ulcers increases the longer you have diabetes, the older you become and also if you are male. The risk also increases if you have any other risk factors for developing furring of the arteries. For example, if you smoke, do little physical activity, have a high cholesterol level, high blood pressure (hypertension) or are overweight.
- If you have had a foot ulcer in the past.
- If you have other complications of diabetes, such as kidney or eye problems.
- If your feet are more prone to minor cuts, grazes, corns, or calluses.
- If you have foot problems such as bunions which put pressure on points on the feet.
- If your shoes do not fit properly, which can put pressure on your feet.
- If you have leg problems which affect the way that you walk or prevent you from bending to care for your feet.

What is good foot care?

Research has shown that people with diabetes who take good care of their feet and protect their feet from injury, are much less likely to develop foot ulcers.

Good foot care includes:

- Looking carefully at your feet each day, including between the toes. If you cannot do this yourself, you should ask someone else to do it for you. Looking is particularly important if you have reduced sensation in your feet, as you may not notice anything wrong at first until you look.
- If you see anything new (such as a cut, bruise, blister, redness, or bleeding) and don't know what to do, see your nurse or GP.
- Do not try to deal with corns, calluses, verruca, or other foot problems by yourself. They should be treated by a health professional such as a podiatrist. Do not use chemicals or acid plasters to remove corns, etc.
- Use a moisturising oil or cream for dry skin to prevent cracking. However, you should not apply it between the toes, as this can cause the skin to become too moist which can lead to an infection developing.
- Look out for athlete's foot (a common minor skin infection). It causes flaky skin and cracks between the toes, which can be sore and can become infected. If you have athlete's foot, it should be treated with an antifungal cream.
- Cut your nails by following the shape of the end of your toe. Do not cut down the sides of the nails, or cut them too short, or use anything sharp to clean down the sides of the nails. This may cause damage or lead the nail to develop an ingrown nail. If you cannot see properly do not try to cut your nails, as you may cut your skin. You should ask someone else to do it.
- Wash your feet regularly and dry them carefully, especially between the toes.
- Do not walk barefoot, even at home. You might tread on something and damage your skin.

- Always wear socks with shoes or alternative footwear. However, don't wear socks that are too tight around the ankle, as they may affect your circulation.
- Shoes, trainers, and other footwear should fit well to consider any awkward shapes or deformities (such as bunions). Have broad fronts with plenty of room for the toes. Have low heels to avoid pressure on the toes. Have good laces, buckles or Velcro fastening to prevent movement and rubbing of feet within the shoes. When you buy shoes, wear the type of socks that you usually wear. Avoid slip-on shoes, shoes with pointed toes, sandals, and flip-flops. Break in new shoes gradually.
- Always feel inside footwear before you put footwear on (to check for stones, rough edges, etc).
- If your feet are an abnormal shape, or if you have bunions or other foot problems, you may need specially fitted shoes to stop your feet rubbing.
- Tips to avoid foot burns include checking the bath temperature with your hand before stepping in; not using hot water bottles, electric blankets, or foot spas; not sitting too close to fires.

You should tell your doctor or nurse if you have any concerns regarding your feet as soon as possible

Structured education Programme – DESMOND

DESMOND stands for Diabetes Education and Self-Management for Ongoing and Newly Diagnosed. DESMOND is a curriculum-based structured education programme for people who have been recently diagnosed with type 2 diabetes or who have been living with type 2 diabetes for a while. DESMOND is delivered by two trained educators who will provide honest, up-to-date, evidence-based information about the causes, effects and options for managing your diabetes.

The DESMOND programme provides an informal and friendly atmosphere in which you will be able to share your experiences, thoughts and opinions about diabetes whilst learning how to manage it. During the programme, the following will be explored:

- Your thoughts and feelings around your diabetes
- Understanding diabetes and glucose: what happens in the body
- Understanding the risk factors and complications associated with diabetes
- Understanding more about monitoring and medication
- How to take control - Food Choices - Physical Activity
- Planning for the future

MyDESMOND (E-learning Platform) has also been designed to support self-management through digital means with modern lifestyles at the heart. Primarily developed with mobile use in mind, MyDESMOND is a responsive website and can therefore also be used on tablets and PCs.

The functions are:

- Core interactive, educational material that mirrors our group content
- Weekly educational booster sessions which build on the core material
- A number of health trackers including HbA1c, weight/shape, healthy eating, and blood pressure – where users can self-report their latest data and track their progress

- A range of activity tracking options including steps and minutes, and the ability to link to wearable technology such as FitBit and Google Fit
- Ask the Experts – where users have the multi-disciplinary team of the Leicester Diabetes Centre to help with their questions
- Chat – users can talk with each other and ask questions about their successes and challenges relating to their diabetes management
- Buddies – an innovative function where users can invite up to 5 of their family & friends to join their journey with them – as a team they will get to compete against each other in weekly/daily activity challenges, as well as the buddies being able to view a range of useful information to help them in their understanding of diabetes to provide better support for their friend/relative

Your Practice Nurse will ensure you have been referred for access to DESMOND which is highly recommended for all newly diagnosed diabetics or established diabetics, please discuss with the nurse if you wish to explore MyDESMOND

Can I find out more information regarding diabetes?

Useful websites:

- Diabetes UK - Diabetes.org.uk (Recipe finder with over 500 recipe ideas)
- www.newforestpcn.co.uk/low-carb/
- www.phcuk.org/sugar/
- www.bhf.org.uk/informationsupport/support/healthy-living/understanding-risk-factors

Books:

- Carbs & Cals Carb & Calorie Counter: Count Your Carbs & Calories (Also an app available)
- Carbs & Cals World Foods

Information in different languages:

- www.diabetes.org.uk/diabetes-the-basics/information-in-different-languages