

My diabetes

Information and resource booklet



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Designed and printed by hunterlodge, Tel: 01923 714949

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Personal information

Please complete your personal details below

Name

Address

Postcode

Telephone no.

Mobile no.

Date of birth

First language

Next of kin name

Telephone no.

Your GP

Surgery address

Telephone no.

Diabetes specialist nurse

Clinic location

Telephone no.

What is this booklet for?

This booklet is for you to keep. The aim of the booklet is to:

- give you the information you need to be in control of your diabetes on a day to day basis,
- enable you to know how and when to seek help from your health care team if you need to, and
- inform you of the different support and services that are available to you.

This booklet is more suitable for adults with diabetes.

This booklet has been divided into four sections.

1. General information on diabetes

2. Management of diabetes

This section provides you with information on how to manage your diabetes through healthy diet, medication, physical activity and other lifestyle choices, as well as tips to help you cope emotionally. There is also a section on what you should expect from your health care team and a checklist of questions to help you know what to ask.

3. Living with diabetes

This section provides you with information about aspects of living with diabetes such as driving, travel and social life.

4. Who can offer me support?

This section provides contact details of the diabetes service providers and other organisations you might find of use.

Who is it for?

This booklet is for people with Type 1 and Type 2 diabetes. If you have Type 1 diabetes your health professionals, usually the hospital based team, will give you further information.

Who has written this booklet?

This booklet has been developed by a team that includes a diabetes specialist nurse, doctor, dietitian, podiatrist, patient representatives as well as input from several other people and existing publications.

Your comments

We want to know what you think about this booklet so that we can continue to improve this resource. Please fill out the form at the back of this booklet to let us know what you think and suggest any improvements that we can make.

We hope that you find this booklet useful.

Section 1: General information on diabetes**1.1 What is diabetes?**

Diabetes, or to give the condition 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 not able to use it properly. Over 2.5 million people in the UK have diabetes and probably another half a million have the condition but do not know it, so you are not alone. The main two types of diabetes are Type 1 and Type 2. At present, diabetes cannot be cured. However, it can be controlled and you can lead a full and active life.

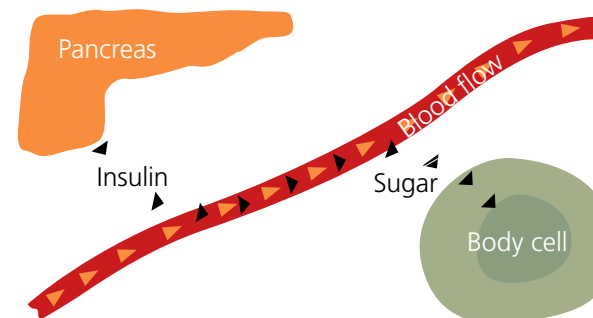
1.2 What happens and what causes it?

Diabetes is having too much glucose in the blood because the pancreas (a gland behind your stomach) cannot make enough effective insulin.

The carbohydrate foods (sugars and starches) that we eat are changed into glucose which passes into the blood. The glucose provides energy for the body to live and grow. Everyone has some glucose in their blood all the time.

Therefore, glucose to the body is like petrol to a car. It provides the energy we need to function. When you eat carbohydrate food it passes through your digestive system where it is turned into glucose. The glucose then enters into your blood stream. Insulin acts like a key allowing the glucose to get from the blood stream into the cells to give you energy.

With diabetes you either do not produce enough insulin or the insulin does not work properly. The end result is that your blood glucose level is too high and this is when diabetes is diagnosed.



This diagram shows how insulin helps glucose enter the body cells. When you have diabetes this process does not work properly and the glucose builds up in the blood stream.

1.3 Myths about diabetes

There are many myths surrounding diabetes and it is important to be clear what these are so that you can inform people of the correct information relating to your condition.

- You cannot get diabetes by simply eating too many sweets or by eating the wrong things, although if you become overweight and are physically inactive this does increase the risk of diabetes.
- There is no such thing as 'mild diabetes.' Diabetes is detected through special blood tests. Uncontrolled or poorly controlled diabetes can be a serious illness and lead to major health problems in the future.
- Stress does not cause diabetes, although it may make symptoms worse in people who already have the condition.

1.4 What are the different types of diabetes?

There are two main types of diabetes: Type 1 and Type 2 diabetes. Both of these types have the same signs and symptoms.

What are the signs and symptoms of diabetes?

You may have experienced some of these symptoms before but not necessarily all of them. These are:

- increased thirst,
- passing urine more frequently, especially at night,
- extreme tiredness or loss of energy,
- weight loss,
- recurring infections e.g. thrush, urine infections, skin infections, and
- blurred vision.

1.5 Type 1 diabetes

Type 1 diabetes develops when there is no production of insulin in the body because all the cells in the pancreas that produce the insulin have been destroyed. Nobody knows why this happens but it is thought to be triggered by a viral infection. This type of diabetes usually develops quickly, often over a few weeks, and tends to mainly affect children and young adults.

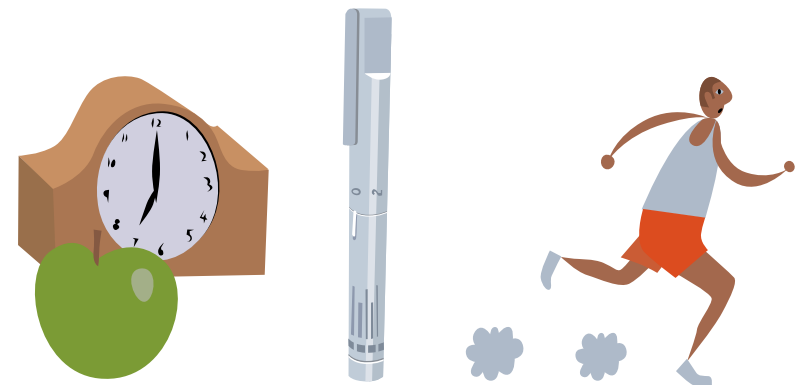
People with Type 1 diabetes have stopped making insulin, therefore the body is unable to use the glucose that comes from the food they eat. They tend to lose weight very quickly because the body is actually being starved of the energy it needs. Their health will rapidly deteriorate and it is life threatening if insulin is not given.

However, because these symptoms of diabetes are so noticeable, they are usually diagnosed very quickly and treatment will be started immediately. The symptoms are quickly relieved once the diabetes is treated.

Type 1 diabetes is treated by:

- taking insulin injections,
- healthy eating, and
- taking regular physical activity.

Good control of Type 1 diabetes will reduce the chances of developing more serious health problems.



1.6 Type 2 diabetes

Type 2 diabetes develops when the body is not able to produce enough insulin for its needs, or when the body's insulin does not work properly. It usually appears in people over the age of 40, but it can occur at a younger age. Type 2 diabetes is becoming increasingly common in the UK.

There are a number of factors which increase the risk of developing Type 2 diabetes. These are:

- being overweight, particularly being bigger around the waistline,
- having a family history of diabetes,
- having had diabetes during pregnancy or a history of having large babies,
- being 40 years of age or more (risk increases as you get older),
- being of Asian (and are 25 years of age or more), African or Caribbean descent,
- doing little physical activity,
- being previously diagnosed with Impaired Fasting Glycaemia or Impaired Glucose Tolerance.

Type 2 diabetes develops slowly. Some people may not notice any symptoms at all and only have their diabetes picked up at a routine medical check up. You may only feel tired, so it is really easy to put the symptoms down to 'getting older' or feeling overworked.

How is Type 2 diabetes treated?

Type 2 diabetes is treated by:

- healthy eating,
- maintaining a healthy weight,
- regular physical activity,
- tablets or injection based treatment such as insulin may be needed in addition to healthy eating and exercise.

It is important to recognise that your diabetes will change over time, and therefore your treatment will need to alter. This is not your fault but is due to the progressive nature of Type 2 diabetes. If you currently treat your diabetes with diet alone, you may need to start taking tablets in the future. If you already take tablets, your dose may need to be increased and eventually you may need insulin injections. It is impossible to put a timescale on these changes.

Section 2: Management of diabetes

2.1 What can I do?

Diabetes is a life-long condition which you need to take seriously. Managing your diabetes well is a balancing act. You have to manage your medication (if you are taking any), with healthy eating and physical activity.

Whether you have Type 1 or Type 2 diabetes, you should aim to eat healthily and be as physically active as you can. Following these steps will allow your medication to work more effectively.

The management of diabetes most importantly involves **self-care**.

Your GP, practice nurse and diabetes specialist team are here to support you with this condition and to help you find ways to continue living your life to the full. The following sections will describe how you can manage your diabetes most effectively.

These sections are:

- 2.2 Coping with diabetes
- 2.3 Healthy eating
- 2.4 Medication
- 2.5 Checking your diabetes control
- 2.6 Physical activity and lifestyle changes
- 2.7 Prevention of long term complications
- 2.8 Understanding your diabetes health care service



2.2 Coping with diabetes

It is a common reaction when you are first diagnosed to be shocked and then to feel a little lost. Some people are relieved that it is nothing worse, others are fearful and some scared because they feel their life is out of control and they cannot cope. It is not unusual to feel helpless and overwhelmed. All of these feelings are natural. Family members may also be having similar feelings.

It would be nice if health professionals, family and friends could manage your diabetes for you. They can only support you. Managing it is your responsibility.

It takes time to come to terms with your condition and some people have a harder time than others. This means that you may experience a number of emotional changes; anger, sadness, fear, anxiety, or depression (which is more than just feeling a bit low).

If the emotions you experience last more than a month, have a chat with your GP.

Your GP may consider:

- referring you for extra support like psychological counselling, or putting you in touch with members of a diabetes self-help group, and/or
- prescribing medication for you; you can discuss this with him/her.

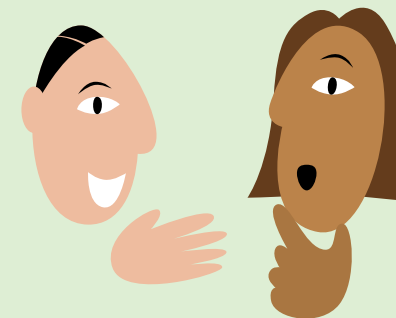
Learning about your condition can help reduce your anxiety. Remember, no question is 'silly' and the more you know, the better you will be able to control your condition. Understanding and discussing your condition with your family, friends and other people with diabetes can help you bring your fears into perspective.

Your diabetes will not go away if you ignore it, but by controlling it and building the lifestyle changes into your daily routine, you can have a long and fulfilling future.

TIPS

Top tips from our patient representatives:

- Diabetes only restricts your life if you allow it to.
- Not every day will be a good day, so be prepared to be a bit flexible.
- You can learn to cope well with your condition by:
 - keeping up to date with information,
 - if you are not sure – ask,
 - if you do not understand – ask,
 - if you think something is wrong – tell someone
 - if it sounds wrong - query it.
- If you think you need help – you need help.
- Don't take no for an answer, always ask why!
- Diabetes can cause many symptoms. If you are not sure about a symptom and wonder if it is linked to your diabetes talk to your diabetes team.
- Build a relationship with your pharmacist – pharmacists are a wealth of information.
- You don't have to climb a mountain to exercise, you can walk to the shops or do some gardening, but the more you do the better.
- Join your local branch of Diabetes UK to meet other people with diabetes and find out more about living with this condition.



2.3 Healthy eating

Healthy eating is important for everyone so all family members can eat the same healthy diet. People with diabetes do not need special foods, however your food intake is key to helping you maintain good health. What and how much you eat directly affects your blood glucose levels. Maintaining your blood glucose level is a balancing act between your food intake, the amount of daily activity and any medication prescribed by your GP. Healthy eating can also affect the level of fat (cholesterol) in your blood.

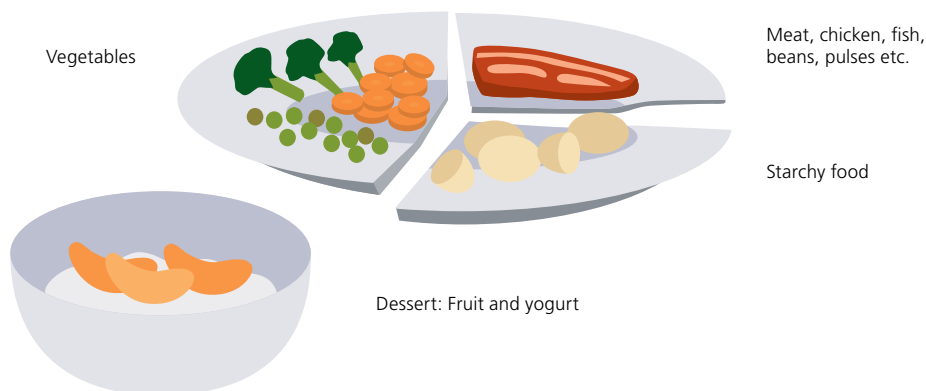
Therefore diets for people with diabetes are designed to:

- keep your blood glucose at near to normal levels in order to look after your eyes, kidneys and feet,
- reduce your risk of developing heart disease or stroke.

Your diet is individual to you, however it is essential that you:

- avoid skipping meals. Try to eat 3 meals a day and space them out over the day. This will help to control your appetite and your blood glucose levels,
- avoid sugary drinks such as pop and large quantities of sugary foods such as sweet cakes and desserts,
- ensure that each meal contains a starchy food such as rice, pasta, yam, potatoes plantain, chapatti, bread or breakfast cereal.

Suggested servings at main meals



Starchy carbohydrate foods

Starchy foods are our fuel foods. We need these foods for energy but it is both the amount and type that is important. If you eat more of these foods than your body needs, they can raise your blood glucose levels and you may gain weight.



Different carbohydrates affect blood glucose levels in different ways. Some pass into your blood slowly, others more quickly.

Include these foods in your diet.	Try to avoid these foods.
<p>Starchy foods These foods pass into your blood slowly. (We say they have a low glycaemic index).</p>	<p>Sugary foods These foods pass into your blood quickly. (We say they have a high glycaemic index).</p>
<p>They cause a slow steady rise in blood glucose so help to keep your blood glucose level steady between meals.</p>	<p>They cause the highs and lows in blood glucose level that you need to avoid.</p>
<p>Examples: pasta, noodles, basmati or quick cook rice, chapatti, starchy vegetables such as yam, sweet potato, new potatoes, beans, peas and lentils, all fruit, porridge wholegrain/seeded bread such as granary, rye</p>	<p>Examples: sugary drinks sweet cakes and biscuits jam sweetened cereals also check the labels of pre-prepared foods and sauces as they can be high in sugar.</p>

To help protect your heart it is advisable to have 5 fruit or vegetable portions per day and oily fish once or twice a week.

Are you getting your 5 A DAY?

People with diabetes can eat all fruits and vegetables. Did you know that eating at least 5 portions of fruit and veg a day could reduce the risk of diseases such as **coronary heart disease, stroke and some cancers?**

To help keep your blood glucose levels balanced, spread your fruit intake over the day.

What counts as my 5 A Day?

- Fresh, frozen, chilled, canned, or dried fruit and vegetables count.
- 100% fruit or vegetable juice counts as one portion per day, even if you have it more than once during the day.
- Beans and pulses count once per day, even if more than one portion is eaten.
- The fruit and vegetables in convenience foods - such as ready meals, pasta sauces, soups and puddings - can contribute to 5 A DAY. Convenience foods can be high in added fat, sugar or salt - which should only be eaten in moderation - so it's important to check the nutrition information on food labels.
- Potatoes and other starchy vegetables, such as yam or casava, **don't count**.

How much is a portion?

1 portion = 80 grams (in weight)

(approximately the amount that will fit into the palm of your hand).

Some common portions of fruit and vegetables are:

- 1 medium apple
- 2 kiwi fruit
- a small handful of grapes
- 3 heaped tablespoons of frozen peas
- 1 handful of chopped carrot sticks
- 2 small satsuma
- 2 broccoli florets



Here are some top tips to include more fruit and vegetables in your diet:

- add fruit to your cereal in the mornings,
- snack on sticks of raw vegetables with a dip,
- drink a small glass (125ml) of fruit juice each day,
- try to eat a piece of fruit with your lunch and evening meal as a dessert,
- try to serve at least 2 vegetables with your main meal of the day,
- add vegetables into your favourite dishes e.g. add peppers and cauliflower to a curry dish or add peppers, carrots and mushrooms to a pasta dish,
- incorporate beans or pulses into your cooking such as lentils and kidney beans as these can count towards 1 portion a day,
- add green or salad vegetables to your meals. These vegetables provide minerals and vitamins to keep us healthy.

Meat, chicken, fish and eggs

Have smaller portions and choose low fat varieties. If you are a vegetarian, unsalted nuts, pulses (e.g. lentils and chickpeas) and legumes (e.g. peas and beans) are good alternatives.

Oily fish are a good source of omega-3 fats which help to keep your heart beating regularly. Omega-3 fats also reduce the risk of clots forming in your blood that contribute towards heart disease and stroke. Try to eat oily fish such as salmon, sardines or mackerel at least once or twice a week. Try fresh, canned or frozen. Fresh tuna is also a good source, but canned tuna is not.

For non-fish eaters small amounts of Omega-3 fats are found in other foods. Plant sources are sweet potato, dark green leafy vegetables and soya based foods. Unsalted nuts are a good source, such as walnuts, pecans, peanuts and almonds. Omega-3 enriched foods such as eggs, milk, yoghurts vary greatly, so check the label. Rapeseed oil also contains Omega-3. Use oils, low fat spreads or olive-oil based margarine sparingly.

Dairy products

Aim for two to three servings a day to ensure adequate calcium intake. A serving is a yogurt or small matchbox size cube of cheese or 1/3 pint milk. Choose low fat versions as they have as much calcium but contain less fat.

Suggested snacks between meals

Most people do not need to snack between meals, especially if trying to lose weight. Here are some ideas of the type of snacks you could, if necessary, eat between meals which meet healthy eating guidelines:

- a piece of fruit,
- a pot of low fat plain or low sugar 'diet' fruit yoghurt/fromage frais,
- 2 oat cakes,
- 2 plain biscuits e.g. Rich Tea, ginger, malted milk,
- a slice of wholegrain bread with a low fat spread,
- a slice of fruit loaf, or half a teacake.

Note: it may be important to have snacks in between your main meals if you are on certain medication and/or insulin. Check with your diabetes team.

If you are away from home always make sure you have snacks available should you have a low blood glucose level (hypoglycaemia - see page 24) whilst out.

Foods to watch out for:

Sugary foods

People with diabetes do not need to follow a sugar free diet but sugary foods do raise blood glucose levels and can also cause weight gain if eaten in excess. They also have low nutritional value.

For example: sugar, jam, marmalade, syrups, honey, desserts, sweet cakes and biscuits, chocolate, sweets, ice-cream, tinned fruit in syrup, soft drinks and cordials.

Tips

- Avoid adding sugar or honey to drinks or food.
- Try to use low sugar alternatives e.g. Sweetex, Hermesetas, Splenda and Canderel.

Please note

There is no such thing as a special diet for diabetes and it is not necessary to buy 'diabetic' foods. A well balanced, healthy diet will help you to manage your diabetes and protect your long term health.

Foods high in fat

A diet high in saturated fats increases your risk of heart problems and stroke.

If you have a high fat diet, you are likely to put on weight. This may make your diabetes harder to control. Use as little fat as possible. Replace saturated fats such as butter and lard with unsaturated fats such as rapeseed oil and olive oil/spreads.

There are five main ways to reduce the total amount of fat in the diet:

- choose low fat options when buying foods e.g. skimmed or semi skimmed milk, reduced fat cheese, diet yoghurt,
- when preparing food, cut visible fat off meat, take skin off chicken, grate cheese rather than slicing it (you will use less) and use butter or spreads thinly on bread,
- when cooking, grill, boil, stew, steam, poach, microwave or bake rather than frying,
- limit high fat snack foods e.g. crisps, nuts, chevda, and samosas,
- beware of hidden fats in foods e.g. cakes, biscuits, crisps, cheese, processed meat, sausages, salami, gravies, sauces, salad dressings and mayonnaise.

Drinks

Remember to have at least 8 cups of fluid a day. Choose drinks labelled 'no added sugar' or 'diet'. Water, tea, coffee, (without sugar or sweetened with artificial sweetener) and diet drinks are some good examples. Pure fruit juices are high in natural fruit sugar, so limit these to 1 small glass (125ml) a day. For a longer drink, dilute the fruit juice with water or sugar free lemonade.

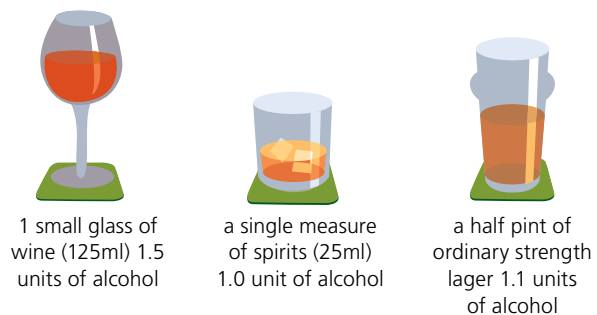
Alcohol

The recommendations are a maximum of 3-4 units per day for men and a maximum of 2-3 units per day for women. Aim to have at least 2 alcohol free days per week.

Please note

- All alcoholic drinks are high in calories and may lead to weight gain.
- Diabetic or low sugar beers and lagers are often higher in alcohol. Low alcohol beers or lager tend to be higher in sugar.
- Avoid drinks that are high in sugar e.g. sweet sherry, sweet wine and liqueurs.
- Always use sugar free or diet mixers and soft drinks.
- Alcohol can lower your blood glucose to an unsafe level. If you are on insulin you will be advised to have a starchy snack or meal before drinking alcohol. It is advisable never to drink alcohol on an empty stomach.
- If you are on certain tablets or insulin, please remember to carry glucose tablets with you. If you are likely to experience a 'hypo' (see page 25), make sure friends know that you have diabetes and what to do.
- It is also advisable to carry some form of diabetes identification with you e.g. a bracelet, necklace or identification card.

Note: standard drinks contain the following units of alcohol:



Alcohol units are calculated on lowest alcohol strength. Stronger alcohol drinks have a higher alcohol units count.

There is a lot more to learn about healthy eating. Ask your doctor or nurse to refer you to a dietitian who can help you with your own personal healthy eating plan.

2.4 Medication for diabetes

There are many different types of medication to treat your diabetes. Your GP or diabetes team will recommend to you the most suitable medication regime for your diabetes condition and lifestyle. You can discuss your medication with them at any time.

It is also important to understand your medication, ideally:

- know the name of your medication,
- when to take it and how much to take,
- the action of the medication,
- possible side effects and if it affects any other medication you are taking.

This section will explain about the medication that helps to control blood glucose levels. You may also be asked to take medication to lower your blood pressure and cholesterol levels. These are equally important tablets to remember to take as they will help to prevent some of the complications associated with diabetes.

Treatments for Type 2 diabetes

If you have been prescribed tablets for your diabetes, it is because healthy eating alone will not control your blood glucose levels. However, you still need to eat healthily and be physically active in order to manage your diabetes.

Some people need to take a combination of tablets to control their blood glucose levels and some may need to take tablets and injectable treatments such as insulin.

Taking your tablets

Your diabetes team will advise you on when to take your tablets. It is important to remember the following:

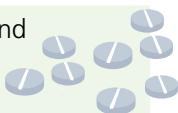
- NEVER stop taking your tablets (unless your medical team instructs you to do so),
- if your medication is only taken once daily and you forget to take it, you can usually take it up to 4 hours after your usual time,
- if your medication is taken more than once a day and you forget a dose which is more than 2 hours late, do not take the missed dose. Take the next dose at the next scheduled time. Never double dose to try to replace a missed tablet,
- if you are ill, DO NOT STOP taking your tablets,
- if you are vomiting, contact your GP immediately.

By taking your tablets as instructed, you will be able to achieve better blood glucose control and therefore reduce the risk of long term complications. If you experience difficulty controlling your blood glucose or have unpleasant side effects at any time, speak to your GP or a member of your diabetes team.

You should have the right treatment for you and it is for this reason that you must stay in contact with your clinic and attend your appointments. These are the main groups of non-insulin medications available to treat Type 2 diabetes. They are:

1. Sulphonylureas e.g. gliclazide (Diamicron), glimepiride (Amaryl), glibenclamide (Daonil) and glipizide (Glibenese and Minodiab)

Action:	Stimulates the pancreas to release more insulin and the body to use the insulin more effectively.
When to take:	Once or twice a day before meals.
Side effects:	Low blood glucose (hypoglycaemia) and possible weight gain.



2. Biguanides e.g. metformin (Glucophage) and slow release metformin (Glucophage SR)

Action:	Improve your body's response to insulin and also stops it making too much glucose. Often used as the first choice of treatment especially for people who are overweight.
When to take:	Once, twice or three times a day with meals.
Side effects:	Upset stomach and flatulence. This can be overcome by starting on a low dose and taking with or after food, or using the slow release version of the drug.

3. Alpha-Glucosidase inhibitors e.g. acarbose (Glucobay)

Action:	Slows the rise in blood glucose normally experienced after meals. It does this by slowing down the uptake of starchy food from the intestine.
When to take:	Once, twice or three times a day. Should always be chewed with the first mouthful of food or swallowed whole with a little liquid immediately before food.
Side effects:	Upset stomach and flatulence.

4. Glitazones e.g. pioglitazone (Actos)

Action:	These tablets improve your body's response to insulin.
When to take:	Once a day.
Side effects:	Fluid retention / swollen legs.

5. Prandial glucose regulators e.g. repaglinide (Prandin) and nateglinide (Starlix)

Action:	Stimulates the pancreas to release more insulin after meals to cope with the increase of blood glucose that occurs after eating.
When to take:	Directly before meals.
Side effects:	Upset stomach, flatulence and hypoglycaemia.

6. DPP-4 Inhibitors e.g. sitagliptin (Januvia), vildagliptin (Galvus), saxagliptin (Onglyza), linagliptin (Trajenta)

Action:	Works by blocking the action of an enzyme DPP-4, which breaks down the hormone called incretin found in the gut. Incretin helps the body produce more insulin and reduces the amount of glucose being produced by the liver when it is not needed.
When to take:	Once or twice a day.
Side effects:	Nausea.

7. Incretin Mimetics e.g. exenatide (Byetta), liraglutide (Victoza), exenatide once weekly (Bydureon)

Action:	Works by mimicking the action of gut hormones called incretin hormones. They have a more powerful action than the DPP-4 inhibitors. They also slow down the rate at which food passes through the stomach, making you feel fuller quicker when eating a meal which can help to reduce appetite and weight.
When to take:	Usually injected once or twice a day, though there is now also a once weekly injection.
Side effects:	Nausea and vomiting.

If you are experiencing side effects which you find distressing or you are having any difficulties with your medications please contact a member of your diabetes team.

Insulin treatment

For people who have Type 2 diabetes, insulin may be recommended to be taken with or without tablets to control blood glucose levels.

If you have Type 1 diabetes then the treatment for you is insulin along with a healthy eating plan and lifestyle.

Insulin cannot be taken in tablet form, as the acids produced in the stomach would destroy the insulin.

Why do I need insulin?

You have been prescribed insulin because you have Type 1 diabetes or because your Type 2 diabetes is not being controlled well enough by other treatments alone.

How do I start?

Many people with diabetes (Type 1 and 2) are fearful at first of injecting insulin. Discuss this with your diabetes team, who will give you the information that you need and help put you at ease before starting insulin.

All the possibilities will be discussed with you, to enable you to make an informed choice. You will be taught how to inject yourself with insulin and you will be supported with an on-going education plan while you get used to it.

Below are some of the main discussions which you will have before and once you have started the insulin:

- What type of insulin is going to fit in with my lifestyle?
- Which insulin pen is best for me to use?
- How do I use the insulin pen?
- How do I store my insulin?
- How do I dispose of the needles?

For more information about insulin treatments discuss with your practice nurse or contact Diabetes UK for more information.

You will be helped with your first injection by a diabetes specialist nurse, community or practice nurse.

The starting dose of insulin is always small, whilst you get used to taking the injections. Insulin doses will be increased gradually (depending on your blood glucose readings). This will occur under close supervision of your diabetes team.

The nurse will also go into detail about the following:

- how to recognise and treat low blood glucose (hypoglycaemia),
- what to do if you become ill ("sick day rules"),
- how often you should be reviewed at your diabetes clinic.

Where do I inject?

Injections are given into the fatty areas of the body i.e. abdomen, thighs and buttocks. Insulin is NOT given into a vein. You will need to change the injection site regularly, as using the same place all the time can make the skin lumpy underneath, which may alter the absorption of your insulin.

2.5 Checking your diabetes control

Diabetes control can be monitored in two ways, by checking the glycated haemoglobin (HbA1c test) or by blood glucose testing.

What is haemoglobin A1c (HbA1c) blood testing?

HbA1c is a measure of how much glucose is attached to haemoglobin. Haemoglobin is a protein inside your red blood cells. The HbA1c result allows you and your diabetes team to see how well your diabetes has been controlled during the past 2-3 months. It is measured in mmol/mol. The normal range is between 20-42mmol/mol but the targets for people with diabetes may be higher than this. Your target level will be agreed between you and your diabetes team.

(Note: HbA1c used to be measured as a percentage (%) where the normal range was 4-6% but in 2011 this was changed to mmol/mol).

Blood glucose testing

Your doctor or nurse will advise you if blood glucose testing is likely to be helpful to you. Blood glucose testing enables you to see how well your body is responding to your medication, diet and activity levels.

If I test my blood glucose, what should it be?

It is normal for your blood glucose to fluctuate throughout the day. Your blood glucose will also rise after eating a meal. The best times to test are just before a meal, or two hours after a meal.

Your blood glucose levels should ideally be between 4-7mmol/l (don't worry about the mmol/l, just remember the 4-7) before meals.

However, your doctor or nurse will tell you what is an acceptable blood glucose level for you to aim for, as well as how often you should test and how to perform the test accurately.

What if my blood glucose levels or HbA1c are too high? (hyperglycaemia)

Hyperglycaemia are blood glucose levels that are too high. These are blood glucose levels above the healthy range or acceptable level for you. Your doctor or nurse will advise you what your acceptable HbA1c and blood glucose range should be.

You may not have any symptoms of high blood glucose levels but if you do the symptoms are:

- tiredness and loss of energy,
- increased thirst,
- passing urine more frequently,
- susceptibility to infections.

What causes high blood glucose levels and what should I do?

You can have high blood glucose levels for many reasons, the main reasons are:

- eating large meals containing too much starchy or sugary carbohydrate foods,
- not having enough medication (insulin or tablets),
- taking less exercise than usual,
- emotional stress,
- having an infection or fever.

The following may help:

- do more frequent blood glucose testing. If these are too high contact your doctor or nurse,
- look at your food intake, e.g. 'am I eating too much sugary or starchy food?'
- do more physical activity, such as going for a walk.

Without treatment you may become increasingly unwell. If your blood glucose levels are consistently high, it is best to make an appointment to see your doctor or nurse to discuss what to do. Remember, long-term high blood glucose levels can also cause complications associated with diabetes.

What if my blood glucose levels are too low? (hypoglycaemia or 'hypo')

If you require medication for your diabetes (insulin or some tablets), you could experience hypoglycaemia. Hypoglycaemia or 'hypo' is a blood glucose that is too low (less than 4 mmol/l).

What will I feel like when having a 'hypo'?

A 'HYPO' CAN SOMETIMES HAPPEN SUDDENLY AND WITHOUT WARNING...

Below are some of the symptoms you may experience during a 'hypo'. You may experience one or more of the symptoms.

- excessive sweating,
- shaking,
- paleness,
- headache,
- hunger,
- tingling of the lips and tongue,
- pounding of the heart,
- blurred vision,
- lack of concentration,
- personality change – irritation and anger.

Your doctor or nurse should tell you if you are likely to experience these, when you start your diabetes medication.



Why does a 'hypo' happen?

Knowing why a hypo occurs can help you prevent this happening again in the future.

These are some common reasons why a low blood glucose can occur:-

- you have missed a meal, snack or are late for a meal,
- insufficient starchy carbohydrate with a meal or dieting,
- you have done more physical activity than usual or restarted exercise after a break of time,
- you have taken too much insulin or diabetes tablets,
- you have drunk alcohol without eating food,
- if the weather is hot,
- if you are feeling very stressed.

What do I do to treat low blood glucose ('hypo')?

DO NOT DELAY – TAKE ONE OF THE FOLLOWING QUICK ACTING CARBOHYDRATES:

- 5-7 glucose tablets (e.g. Dextrosol or Lucozade tablets),
- 4-5 Glucotabs,
- 100ml Lucozade Energy Original (approximately ¼ small 380ml bottle),
- 3-4 jelly babies,
- 3-4 teaspoons of sugar,
- 4-6 wine gums,
- 2 X 25g sachets of Glucogel.

Each of these foods contain 15-20g carbohydrate. The amount needed will vary from one person to another and may depend on circumstances.

Repeat the dose of quick acting carbohydrate if you do not start to feel better within 5-10 minutes or your blood glucose level is still less than 4 mmol/l.

Once you are starting to feel better (usually after 5-10 minutes, but it can be longer) or your blood glucose is 4 mmol/l or higher, then have something to eat, such as:

- your next meal if due,
- 1 slice of bread,
- 1/3 pint of milk and a plain biscuit,
- 1 portion of fresh fruit.

It is important to never stop your diabetes medication if you have had a 'hypo'. If you are having low blood glucose levels regularly, you **MUST** go and see your doctor or nurse to review your treatment.

Sometimes you might feel like you are having a hypo but if your treatment is diet with or without metformin tablets, the level of blood glucose is unlikely to be low enough to warrant extra quick acting carbohydrate food intake. However if you take sulphonylurea tablets or insulin, these medications are far more likely to cause blood glucose levels that are less than 4mmol/l and this may occur quickly.

If possible, check your blood glucose level first and act if it is less than 4mmol/l. However, if in doubt, treat as hypoglycaemia and check your blood glucose level as soon as you feel able.

2.6 Physical activity and lifestyle changes

Why do I need to be physically active?

Physical activity is good for you and can help you:

- feel good,
- lose weight,
- lower your blood glucose levels,
- improve your muscle tone and heart function,
- increase tissue sensitivity to insulin.

Try

- a brisk walk,
- take the stairs instead of the lift,
- get off the bus a stop earlier and walk the rest of the way,
- use a bicycle or walk instead of using the car for short journeys, or
- join a physical activity group.

Current recommendations are to be active at a level that increases your breathing rate and makes you feel warmer, for 30 minutes a day, five or more times a week. This intensity and amount will promote good health. If this seems too much at the beginning, try starting with 5-10 minutes and increase this gradually. You should choose an activity that you enjoy, that is convenient for you and involves your family and friends so they can support you and get fit themselves!

Most people are safe to do physical activity. If you are concerned or have certain health conditions such as heart disease or asthma, please consult your doctor before undertaking physical activity.

Types of activities

Below is a list of activities you might like to try. This is not complete – there may be other activities available in your area. Libraries, town halls, schools, community and sports centres, churches and the internet will have more information on these and other activities in your area:

- walking – as transport and for fun and at every given opportunity,
- housework and gardening,
- childcare – playing and transporting,
- cycling – as transport and for fun,
- power walk/jog/run,
- weight/resistance training,
- gyms,
- aerobics/exercise to music,
- home exercise DVD,
- mobilisation, stretch and relaxation classes,
- over 50s classes,
- bowling/crown green bowling,
- swimming/aqua-aerobic classes,
- ante/post natal classes,
- pilates,
- yoga,
- t'ai chi,
- fit ball classes,
- racquet sports,
- self-defence/martial arts,
- team sports,
- dancing.

Any of the above, if done regularly, will benefit your health. Ideally a mixture of activities will give you all round health and fitness gains. The most important thing is that the activities need to make you slightly breathless (the 'aerobic' types of activity).

Why should I give up smoking?

Giving up smoking is the most positive thing you can do for your diabetes and your health in general. Smoking roughly doubles your risk of heart disease and increases your risk of stroke.

If you are a smoker and want to quit, there are specialised people who can help you. In Leeds there is the Leeds Stop Smoking Service, details of which is below. This service is **Free** of charge. They have the tools to help you kick the habit and breathe a new and healthy life.

There are effective treatments available to help you to quit your addiction, such as nicotine replacement therapy and other drug treatments.

Leeds stop smoking service

For free advice, support and details of clinics to help you to stop smoking and:

- increase your chances of stopping successfully with help and support,
- identify clinics in your local area,
- prepare you for stopping,
- access advice on treatment,
- access ongoing support.

To find out more, call **0800 169 4219** (freephone).

It is worth it... it can save your life.

Weight management

If you are overweight your body will be less sensitive to the insulin that you are producing or injecting. A combination of healthy eating, watching your portion sizes and regular physical activity has been shown to be the most successful way of preventing weight gain and also to help with weight loss.

A common approach to weight loss is to go on a diet for a limited period of time.

This can help you to lose weight in the short term but permanent changes to your lifestyle are required for long-term success.

If you need support or advice with weight management, ask your health care professional to arrange a referral to a dietitian.



2.7 Prevention of complications

With treatment of your diabetes, your general health will improve and you should also notice an improvement in your energy levels. It is important that you maintain good control of your diabetes, as continuing high blood glucose levels can cause damage throughout the body. Parts of the body that can be affected are your eyes, kidneys, heart and feet. These problems are discussed in more detail below.

Evidence has shown that people with Type 2 diabetes who look after and control their diabetes well, minimise their risk of developing complications. Therefore, there are very good reasons to take your diabetes seriously.

Your eyes

Diabetes can lead to visual problems (in some cases blindness) due to changes in the retina at the back of the eye (this is called retinopathy). It also increases the risks of cataracts developing. If your diabetes is well controlled, then you are less likely to have problems, or they may be less serious.

Most loss of vision due to diabetes can be prevented, but it is vital that it is diagnosed early. This can only be detected by a detailed examination of the eyes. This important examination should consist of yearly retinal screening photography (organised by your GP practice) and regular check-ups at your optician/optometrist.

Annual eye examinations are extremely important, as you may not realise that there is anything wrong with your eyes until it is too late.

Your kidneys

Diabetes can cause damage to the kidneys, which is known as renal disease or nephropathy. Your doctor/nurse should check your blood pressure (high blood pressure increases the risk of kidney damage) and kidney function regularly. This will take place at your annual review. Sometimes medication may be suggested to help protect your kidneys.

Your heart

Having diabetes puts you at an increased risk of a heart attack or stroke than someone without diabetes. Evidence has shown that by keeping good control of your blood glucose, cholesterol, and blood pressure you can significantly reduce this risk.

What is cardiovascular disease? (heart and blood vessels)

Cardiovascular disease, or damage to the heart and blood vessels throughout the body, is caused by a build-up of cholesterol (fatty deposit) on the lining of blood vessels. These fatty deposits (known as “cholesterol plaques”) can break down leading to a restriction in the flow of blood through the blood vessels, which can result in heart attack, stroke, poor circulation or damage to other organs in the body.

It is thought that in people with diabetes, this plaque collects in the arteries more easily than in people who don't have diabetes – increasing their “cardiovascular risk”. This is why it is very important to ensure your cholesterol level and blood pressure are regularly checked and monitored, that you don't smoke and that if you do, you consider stopping. You should also try to be physically active on a regular basis.

The speed in which these blood vessels become narrowed depends on many factors, known as risk factors. So you can help to prevent cardiovascular disease by keeping to the following healthy living advice:

- not smoking,
- reducing the amount of fat in your diet,
- eating five portions of fruit and vegetables a day and 1-2 portions of oily fish per week,
- keeping your blood pressure, blood glucose and cholesterol under control,
- exercising regularly,
- losing weight if overweight.

Medication may be suggested to help reduce your cardiovascular risk factors. Drugs to lower blood pressure and cholesterol are just as important as drugs to lower blood glucose level.

Your feet

Diabetes can lead to:

- nerve damage in the feet and legs resulting in a loss of sensation, pins and needles or possible numbness, pain and burning sensations. This is called neuropathy.
- a reduced blood supply to the feet and legs resulting in cold, painful feet. This could cause cramp in the legs when walking. This is called peripheral vascular disease.

In diabetes injuries to the feet may go unnoticed, be slow to heal and can quickly become infected - **you should seek help urgently from your GP, podiatrist, nurse or hospital diabetes clinic if there is any sign of infection such as pain/discomfort, inflammation, colour changes and or weeping.**

It is important that your feet are examined as part of your annual review each year so that any problems can be treated early.

To prevent problems it is important that you care for your feet. You can continue to manage your own toenail care safely unless advised otherwise by your Podiatrist who should be registered with the Health Professions Council (HPC).

The following information should help:

1. Wash feet daily with a mild soap and luke warm water.



2. Dry feet thoroughly especially between the toes, using a soft towel or tissue.



3. For moist/sweaty skin, swab between the toes with surgical spirit.

4. If skin is dry or rough, use moisturising cream but avoid applying between toes.

5. When cutting toenails follow the curve of the toe end and avoid digging into the corners. Do not cut nails too short.

6. Use a pair of nail clippers and file the nails to avoid sharp edges.

7. For problem nails such as ingrown or thickened nails, or if you have poor eyesight consult a podiatrist, registered with the Health Professions Council (HPC).

8. Corns and calluses should be dealt with by a podiatrist. Do not use razor blades, corn plasters etc. However you may use a pumice stone or file to smooth rough skin.

9. Choose shoes with a fastening such as laces/velcro to hold the foot in place. Wear closed-in shoes with a deep, round toe box to allow plenty of room for the toes.

10. Have feet measured when buying new shoes. Always wear in new shoes gradually to prevent rubs/blisters.



11. Avoid walking barefoot – always wear shoes/slippers even indoors to protect your feet.

12. Change socks daily. Wear socks or stockings which fit correctly and are in good repair.

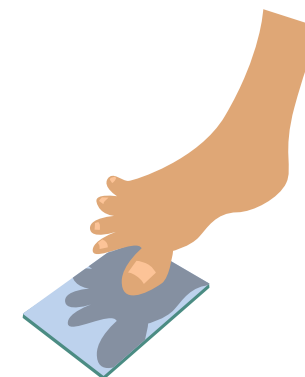
13. Look at your feet every day. Check between the toes and underneath your feet. You may need to use a mirror to help you to check.

14. Things to look out for:

- cuts, scratches, and blisters,
- any change in colour (red, black, blue, white),
- sudden changes in temperature in the skin,
- any discharge from a break or crack in the skin,
- any unusual swelling, and
- painful areas.

15. Check shoes, inside and out, before putting them on for rough edges, grit or cracks which may irritate the skin. You may not be able to feel these if you have a loss of sensation.

For assessment or further advice speak to your doctor or nurse as they can advise you and if necessary, refer you to a HPC registered podiatrist.



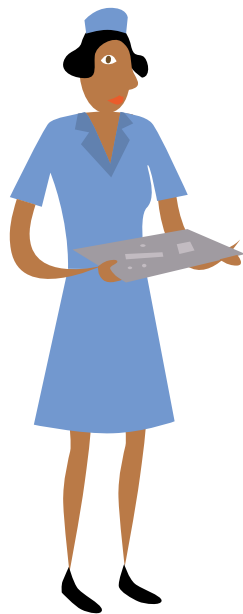
2.8 What care should I expect from the health service for my diabetes?

To achieve the best possible diabetes care, you need to work together with healthcare professionals as equal members of your diabetes team.

You are entitled to have a full check up every year; this is called an **annual review**. **The annual review is very important as this appointment checks your health and ensures that any problem can be treated quickly**. This should be done by your practice nurse or GP, who have had additional training in the management of diabetes.

At this **annual review**:

- your blood should be tested to measure long term diabetes control; the test is called an HbA1c test,
- you should discuss your diabetes control, including your home blood glucose testing results,
- your blood pressure should be taken,
- your kidney function should be tested; this involves taking a urine test and a blood test,
- your cholesterol levels in your blood may be checked; this involves taking a blood test,
- you should be offered Digital Retinal Screening at one of the various camera sites in the city,
- your legs and feet should be examined to check your circulation and nerve supply. If necessary you should be referred to a HPC registered podiatrist,
- your weight should be recorded to check if you are a healthy weight for your height,
- your injection sites should be examined if you are using injection based treatment,
- you should have the opportunity to discuss how you are coping at work and at home,
- if you wish, you can agree your health goals for the coming year.



If you have not had an annual review you should discuss this with your GP.

For more details of these tests please see section 5.1

Structured education programmes for diabetes.

All people found to have diabetes are strongly recommended to attend a structured education programme which will provide them with the knowledge, skills and ability to self-manage their diabetes successfully.

The DAFNE (dose adjustment for normal eating) programme is available for people with Type 1 diabetes. For people with Type 2 diabetes a locally approved programme such as X-PERT or Desmond is available. Please ask for details from your diabetes team.

Your diabetes team

The diabetes team is made up of a number of health care professionals. Who you see and how often you will see them will depend upon your individual needs. The roles of the team members are listed below.

Meet your diabetes team

General Practitioner (GP)

Your GP has overall responsibility for the care you receive. Many practices now have a lead GP who has undertaken extra diabetes training and should play a central role in monitoring your diabetes and prescribing treatments.

Practice nurse/nurse practitioner

Your practice nurse also plays a very important role in providing diabetes care. A practice nurse may be the person at the surgery who provides you with most of your diabetes care with support from your GP if necessary.

Diabetes Specialist Nurse (DSN)

Diabetes specialist nurses have extensive expertise in diabetes care and work solely with people who have diabetes. They provide advice, education and training to both people with diabetes and other health care professionals. Some diabetes specialist nurses are authorised to alter your medication. In Leeds, they are not attached to individual GP practices but work solely within community or hospital based diabetes teams.

GP with a specialist interest in diabetes (GPwSI)

These are GPs with a special interest in diabetes care who work within community diabetes services, and who may also work in hospital based diabetes clinics.

Diabetologists

Diabetologists are Consultants who specialise in diabetes. They are based at St James's University Hospital (Manny Cussins Centre) and Wharfedale General Hospital.

Dietitians

Dietitians can give individual dietary advice. Everyone with diabetes is entitled to receive advice from a State Registered Dietitian. They may be available at your GP surgery, hospital, or community clinics.

Podiatrists

Podiatrists play an important part in managing foot problems related to diabetes. They can give advice on shoes, check any problems and treat callouses and ulcers. Podiatry sessions are usually held in local health centres and at the hospital clinics.

Optometrists

Optometrists are based in opticians, testing people's eyesight and fitting glasses. Eye tests are free to people who have diabetes.

Pharmacists

Pharmacists are based in all pharmacies/chemists. They will give you your medication supplies when you provide them with a prescription from your doctor. They can also explain how your medication works, how to take it correctly, and if there are any side-effects you should be aware of.

Leeds community diabetes team

This service consists of GPwSI's, diabetes specialist nurses, dietitians, podiatrists, and mental health workers. It supports GP practices and people with diabetes by providing more specialised individual care.

Health advocates

Health advocates are available if English is not your first language. This resource will need to be booked in advance.

Talking to your diabetes team

Your team want you to take an active role in your healthcare and work together in partnership to achieve your best possible level of health. An important part of this relationship is good communication.

Questions you may wish to ask your healthcare professional

About my condition...

- What is my diagnosis?
- What caused my condition?
- How can my condition be treated?
- How will this affect other health conditions I may have?
- Should I watch for any particular symptoms and notify you if they occur?
- What lifestyle changes should I make?

About my treatment...

- What is the treatment for my condition?
- What are the benefits of this treatment and how successful is it?
- What are the risks and side effects associated with this treatment?
- Are there foods, drugs, or activities I should avoid whilst I am on this treatment?
- If your treatment includes taking a medication, what should I do if I miss a dose?

About my tests...

- What kind of tests will I have?
- What do you expect to find out from these tests?
- When will I know the results?
- Do I have to do anything to prepare for any of the tests?

A few more tips on communication...

- If you do not understand your health care professional's responses, ask questions until you do understand.
- Take notes or ask a family member or friend to come with you.
- Ask your doctor or nurse to write down his or her instructions to you.
- Ask your doctor or nurse for printed material about your condition.
- If you still have trouble understanding your doctor or nurse, ask where you can find more information.
- All members of your diabetes team can be a good source of information, so talk to them.

Section 3: Living with diabetes

Living with diabetes can have an impact on different areas of your life. How you feel about managing your diabetes and the demands of coping with its treatment can feel too much at times. Talking through these worries with someone you can trust can be helpful, such as with a friend or a member of your family. Your local Diabetes UK support group can also be an excellent resource (see Section 4 for more details).

3.1 Diabetes and health concessions

- Everyone on medication for diabetes is eligible for free prescriptions. Ask your pharmacist or GP for an exemption certificate.
- You are eligible for a free flu vaccination which is available at your GP surgery during October and November each year. It is strongly recommended that people with diabetes receive the flu vaccine.
- You are eligible for free eye checks.
- Podiatry care is also free if your podiatrist decides that you require it.
- Pneumococcal vaccination to help protect against pneumonia is generally recommended and is also free at your GP surgery.

Dental care

It is important that you tell your dentist that you have diabetes. As gum disease is more common in people with diabetes, regular dental checks and early treatment are essential. Dental treatment may upset your diabetes control temporarily, particularly if you find visits to the dentist stressful. There are no concessions for people with diabetes for dental care.

Operations and diabetes

If you are going to have an operation, you need to make sure that your diabetes is well controlled. Contact your doctor or surgeon to find out more.

3.2 Diabetes and pregnancy

Planning a family

Women with all types of diabetes need to prepare for each pregnancy to ensure their own health and the safety of their baby. There are specialised services available to assist with contraception advice, pre-conception and ante-natal care designed to give you information, support and specialised care. Women planning a family should discuss this with their diabetes team. It is important to let your doctor or nurse know as soon as your pregnancy is confirmed.

Pre-conception care

before becoming pregnant your GP surgery should refer you to the pre-conception clinic which is held at St James's Hospital.

The aim of the pre-conception clinic is to make sure that your diabetes is under excellent control **before** you become pregnant. High blood glucose levels have been shown to increase the risk of birth defects and miscarriage. The team will check that your medications are not harmful in pregnancy, change your medication if needed, and recommend folic acid. If you have diabetes, the dose of folic acid is 5mg once a day and this should be taken for three months before you plan to become pregnant and for the first twelve weeks of pregnancy. This is higher than the normal dose of folic acid recommended in pregnancy and this dose needs to be prescribed by your GP.

During pregnancy

Having diabetes increases the risks of pregnancy complications, which is why it is also important to have good blood glucose control during pregnancy. As the pregnancy progresses, raised blood glucose levels can result in large babies, which may pose problems at the time of delivery.

A healthy eating plan is part of the on-going treatment for everyone with diabetes but extra care may be needed to control weight increases during pregnancy – remember you are not eating for two! Discuss any food cravings with your midwife or diabetes specialist nurse.

Getting enough physical activity is very important. Your midwife or diabetes specialist will discuss with you how you can include physical activity in your everyday life.

When you become pregnant you will be asked to attend the diabetes ante-natal clinic, which is jointly staffed by diabetes and maternity team members. It is very important that you attend for ante-natal care to ensure your health and the best possible outcome for your baby.

Unplanned pregnancy

If you think or find that you are pregnant, which has not been planned, it is important that you visit your GP as soon as possible. Your GP will review your medication and should always refer you to the hospital diabetes ante-natal clinic urgently.

Contraception

Because of the risks for women with diabetes associated with pregnancy, it is really important to avoid having an unplanned pregnancy. You should use reliable, effective contraception if you are sexually active. There are no special rules for contraception in women with diabetes but you should note some methods are much more reliable than others and you should be aware of these when making your choice of contraception. Your GP or a family planning adviser can provide information and advice.

3.3 Diabetes and employment

Diabetes does not have to make a difference to your work. To prove this to your employer your diabetes will need to be well controlled and you must be able to adjust your treatment to fit your working life. You may find you need specific advice in relation to your particular job, which you can discuss with your health care professional.

Discrimination in the workplace

Unfortunately there is still discrimination in the workplace based on prejudice and lack of information. People with diabetes can be helped by the Disability Discrimination Act 1995 (DDA). This makes it illegal for employers to treat people with disabilities differently from other employees. Although most people with diabetes do not consider themselves as disabled, diabetes is covered under the Act. If you feel you are being discriminated against, you could contact your union, phone Diabetes UK Careline, contact your local Citizens Advice Bureau (CAB) or the call Equality and Human Rights Commission Helpline England on 0845 6046610.

Applying for a job

If there is a health section on an application form, you should state that you have diabetes. You might like to put 'well controlled diabetes' if this is appropriate. It is important to be honest with your employers on your form. At the interview, emphasise the positive aspects such as having to be aware of time, following a healthy lifestyle and keeping to a regular routine.

Jobs where recruitment restrictions **may** apply include:

- armed forces,
- airline pilot,
- cabin crew with most airlines,
- any job requiring a group 2 driving license,
- working offshore including work for big cruise liners,
- train driving,
- cab or taxi licenses - local practice varies.

In some of the occupations listed above, if you were already employed when you developed diabetes, it is sometimes possible to continue. It is important to check if you are changing from tablets to insulin.

If you have been diagnosed while you are still at work, let your manager and human resources department know. You may need to take time off work. Try to keep them informed of your progress. Tell your colleagues at work, as it is easier if

people understand what has happened to you and they will be able to give you support. Discuss any employment concerns you have with your GP or diabetes specialist nurse.

3.4 Driving and insurance

Having diabetes may not prevent you driving a car or motorbike (Group 1 licence). As long as your diabetes is well controlled and your doctor says you are safe to drive there should be no reason why you cannot be issued with, or retain, a licence.

Do not drive if you feel hypoglycaemic or your blood glucose is less than 5.0mmol/l. Under current law it is your responsibility to ensure you are fit to drive.

Informing the DVLA

If your diabetes is treated with insulin you must, by law, inform the Driver and Vehicle Licensing Agency (DVLA) as soon as possible after this treatment has been recommended. This does not mean you will be refused a Group 1 (car or motorcycle) driving licence. The DVLA just needs to be sure every licensed driver is going to be safe on the roads.

If you have diabetes that is treated with diet, tablets and/or non-insulin injectable medication and you hold a Group 1 licence with no relevant conditions or complications of diabetes you do not need to inform the DVLA.

Examples of relevant conditions or complications which would require the DVLA to be informed are listed below:

- limb problems / amputations and/or circulation or sensation problems in the legs or feet,
- problems with vision/having laser treatment to your eyes,
- more than one episode of disabling hypoglycaemia within twelve months, or you are at high risk of developing disabling hypoglycaemia,
- disabling hypoglycaemia whilst driving,
- you develop impaired awareness of hypoglycaemia,
- deterioration of an existing or development of another medical condition which may affect safe driving.

If you hold a Group 2 licence (Large Goods Vehicle–LGV, Passenger Carrying Vehicle–PCV) you must inform the DVLA if you use insulin and/or tablets/non-insulin injectable medication. Drivers need to satisfy a number of qualifying conditions and be under regular medical review before Group 2 licences are issued. People using insulin are not automatically barred from driving LGV or PCV vehicles. Further information is available from DVLA.

Car insurance

You should always disclose your diabetes to your insurer whether or not they ask. The condition diabetes is 'material fact' and failure to tell your insurance company may invalidate your insurance should you come to make a claim. However since the DDA came into effect insurers can only refuse cover or charge more for cover if they have evidence of increased risk. Most of the evidence available about drivers with diabetes indicates that they are no higher risk than any other driver.

Other types of insurance

Life assurance

Some people with diabetes may have difficulties whilst trying to get life cover. It is important that you declare your diabetes when applying for a new assurance policy. Any life assurance policy you hold at the time of diagnosis is unaffected.

Travel insurance

Inform your travel insurance company that you have diabetes and the medications that you take. You will probably have to pay a higher premium as most companies do not cover pre-existing conditions. Check the policy carefully to ensure that it provides you with the necessary cover for your condition. For all types of insurance it is advisable to approach different companies as quotes may vary considerably.

Diabetes UK will also be able to give advice.

3.5 Diabetes and travel

If you are planning a holiday you need to go through this checklist to make sure you have a safe and happy holiday.

Medication

- Have enough medication for the whole of your trip and include extra in case you are delayed for a few days,
- Have the right vaccinations before you travel. Check with your practice nurse or GP. It is a good idea to have these early as they may upset your diabetes control in the short term.
- Know what to do if you are travelling across time zones. Discuss this with your diabetes care team once you have booked your flights, so they can advise you about your medicines.
- Carry your medication in your hand luggage to ensure that it arrives with you. If there is more than one person travelling divide medication supplies between you in case some are lost or damaged.

- If you are on insulin, you will need a letter from your GP or clinic verifying that you have diabetes so that you can explain at customs why you are carrying syringes and needles.
- Insulin should be kept out of direct sunlight and kept cool. Cool bags are available, or find cool storage on your arrival. Insulin should not be allowed to freeze, hence the luggage hold is too cold.
- Insulin may be absorbed faster in warmer climates so regular blood tests are important to avoid 'hypos'.
- It is a good idea to check beforehand with your accommodation where you can store your medication.

Diet

- Carry some healthy snack foods in your case and also in your hand luggage for long flights.
- It is usually better to avoid 'special diabetic meals' on the aircraft, as these are often just low in carbohydrate as opposed to being a balanced meal.
- In terms of choosing food when abroad, try and stick to the same healthy balance of foods.

Feet

- Make sure that you have comfortable, well-fitting shoes in case your feet swell in hot weather.
- Avoid going barefoot, particularly on the hot sand and pool tiles or in the sea. Make sure you do not get sand in your shoes.
- Apply sunscreen to your feet to avoid sunburn.
- If you develop a foot problem on holiday do not wait until your return home to seek medical attention.

General

- Carry plenty of bottled water to ensure you drink safe water regularly.
- It is a good idea to know how to say, 'I have diabetes' in the language of the country you are going to. Carry your diabetes identity card with you.
- If you are taken ill while on holiday, never stop your insulin or tablets even if you cannot take solid foods and follow the illness advice information in section 3.8.
- It is a good idea to discuss any concerns you have about travelling with your diabetes team before travelling.

3.6 Social life

Your social life should not alter much; you just need to plan ahead and have a contingency for emergencies. You need to work with your diabetes and be aware of your daily needs. This means ensuring that you are well organised and well prepared. It is not always easy to be spontaneous and gradually you will get used to what you can and cannot do without planning in advance. If you have a car or are going out in a car, carry an emergency box (some glucose tablets, packet of biscuits or crackers, bottle of water, Lucozade etc), that way you will always have a backup. If you carry a bag, take glucose tablets and some biscuits. Make sure you tell your friends and family about your diabetes and what your needs are. This will help them to look after you and be more considerate when you say 'I need to stop for something to eat' or 'I think I am having a hypo'.

Eating with friends

People may be anxious about what they can and cannot serve you. Reassure them that your needs are similar to other people, you just have to be a bit more careful. Ask your host what he/she is serving and explain your needs and the reasons behind them.

- Make sure you know what you are going to eat and when, so that you can plan your other meals around it.
- Ensure that the meal will have enough starchy foods and that there will be alternatives to some of the richer foods.
- Do not overindulge during the day if you know you will be eating a big meal in the evening.
- If the meal is late, make sure you have something to eat when you need it, even if you cannot then eat the whole of the meal provided.
- Do not over indulge and if you intend to drink alcohol ensure you test your blood glucose before you go to bed.

Eating out

Eating out for the first time may concern you. Ask for advice from your diabetes team but don't be put off.

Usually you can see the menu first - some good restaurants will send you a menu in advance and some have them on their web site. Choose wisely and ask how long it may be before the meal is served. If necessary ask for some starchy food (e.g. bread, crackers) if it is going to take too long and you cannot wait.

3.7 Diabetes and fasting

What if I want to fast and I have diabetes?

There are times when you may need to fast for medical or religious reasons. If you are fasting your diabetes treatment may need to be adjusted. You will need to discuss this with your diabetes team.

What if my treatment is diet only?

People with diabetes managed by diet alone may fast.

What if I take tablets?

If you take tablets for your diabetes you may fast but the timing of your tablets may need to change.

Taking your tablets

- You should always take your tablets regularly.
- It is essential that you do not stop taking your diabetes medication.
- If you want to fast it is best to discuss this individually with your diabetes team.

What if I am on insulin?

If you are on insulin then you need to be very careful if you decide to fast. It is important to contact your diabetes team to discuss fasting with them.

It is important that you see your diabetes team before you change your medication or insulin doses.

3.8 Diabetes and other illness (sick day rules)

When you become physically unwell, your body reacts by raising your blood glucose levels, so worsening your diabetes control. Illnesses and infection that can upset your diabetes control include:

- colds, bronchitis and flu,
- vomiting and diarrhoea,
- urinary tract infections (e.g. cystitis), and
- skin infections (e.g. boils, skin ulcers and inflamed cuts).

Below is a guide to help you through this challenging time.

1. Blood glucose testing

If you test your blood glucose levels do this more often when you are ill, as infections/fevers will usually increase your blood glucose levels. You should aim to test at least 4 times per day.

2. Testing blood or urine for ketones if you have Type 1 diabetes

Ketoacidosis is a serious condition, which may occur as a result of illness. Regular monitoring and adjusting of medication / insulin could avoid this. Your diabetes team will be able to advise whether you need any equipment to test for ketones. If so, they will teach you how and when to use this as well as what action to take. This is especially important if your blood glucose is more than 13 mmol/l and you are experiencing any of the following: vomiting, shortness of breath or abdominal pain. Please contact your doctor immediately if this occurs.

3. Medication

It is important at the time of illness to continue taking your tablets or insulin. If your blood glucose level is consistently high for you (generally greater than 13 mmol/l) use the principles taught by your doctor or nurse to increase your tablets/insulin. You need to get advice from your doctor or diabetes team if any of the following occur:

- you're worried or not sure what to do,
- your blood glucose levels are continuously high, you are vomiting and are unable to keep anything down – **you will need urgent medical help**, or
- you're taking other medications e.g. blood pressure pills as these may be affected by illness.

4. Food and drink

During times of illness your appetite and fluid intake may be affected. Here are some tips to help speed your recovery:

- drink plenty of fluids, aim for five pints (3 litre) of unsweetened fluids a day,
- if you cannot eat solid food, try to take in some carbohydrate in the form of some easier to eat foods such as:
 - milk drinks,
 - soup,
 - ice-cream, yoghurt
 - liquid replacement drinks, ordinary squash or fizzy drinks,

if you are not hungry, try eating small regular meals or snacks.

Section 4: Who can offer me support?

4.1 Your diabetes service providers

Your doctor or practice nurse will provide most of your diabetes support but may refer you to additional diabetes services such as:

Community diabetes team

Shaftesbury House
480 Harehills Lane
Leeds
LS9 6NG
Tel: 0113 8434200
Fax: 0113 8434201

Manny Cussins diabetes centre

St James's University Hospital
Beckett Wing
Beckett Street
Leeds
LS9 7TF
Tel: 0113 2065066
Fax: 0113 2065065

Wharfedale diabetes centre

Wharfedale General Hospital
Newall Carr Road
Otley
Leeds LS21 2LY
Tel: 0113 3921646
Fax: 0113 3921735

Community podiatry service

St Mary's Hospital
Greenhill Road
Armley
Leeds
LS12 3QE
Tel: 0113 3055155
Fax: 0113 3055256

Community dietetic service

Parkside Community Health Centre
311 Dewsbury Road
Leeds LS11 5LQ
Tel: 0113 295 2851
Fax: 0113 2952854

Retinal screening service

Retinal Screening Appointment Centre
Leeds General Infirmary
Below Ward 34
Brotherton Wing
AB Level
Great George Street
Leeds LS1 3EX
Tel: 0113 3922304
Fax: 0113 3928336

Department of foot health

2nd Floor Lincoln Wing
St James's University Hospital
Beckett Street
Leeds
LS9 7TF
Tel: 0113 2064375

Braille & large print service

Shire View
72, Headingley Lane
Leeds
LS6 2DJ
Tel: 0113 214 4540

Sign language interpreting

Sign Language Interpreters can be booked by contacting:

Voice: Tel 0113 2469990
Minicom: 0113 2439900
Fax 0113 2469227

This service can be booked by Health Care Professionals or service users

An interpreting service is also available from Diabetes UK

Careline: 0845 120 2960

PALS (Leeds Patient Advice and Liaison Service)

For general advice, information and guidance when you need help

General healthcare services provided outside of hospital	0800 0525 270 pals@nhsleeds.nhs.uk www.leeds.nhs.uk
Patient relations at Leeds Teaching Hospitals NHS Trust	0113 2066 261
Mental health services	0800 0525 790
Yorkshire Ambulance Services	0845 124 1241

4.2 Other services and support**NHS direct**

Call: 0845 4647

This is a 24-hour nurse advice and health information service, providing confidential information on:

- what to do if you or your family are feeling ill,
- particular health conditions, including diabetes,
- local healthcare services, such as doctors, dentists or late night opening pharmacies, and
- self-help and support organisations.

Self help groups**Diabetes UK**

Diabetes UK is the largest charity devoted to diabetes. It offers many benefits and services to members including educational events, a bi-monthly magazine, information about your diabetes care and about local groups. There is a special Diabetes UK Care-line to help you with any questions you have about diabetes.

Diabetes UK

10 Parkway
London
NW1 7AA

Tel: 020 7424 1000
Careline 0845 120 2960
(open 9-5 Monday-Friday)

email: careline@diabetes.org.uk
website: www.diabetes.org.uk

Diabetes UK Leeds support group

Diabetes UK Leeds Support Group has a monthly support group that meets at the West Yorkshire Playhouse on the 1st Monday of the month from 7-9pm except when it is a bank holiday. Everyone is welcome including family and friends, and those interested in Diabetes. The group is informal and offers an opportunity to chat and we have speakers talking about different aspects of diabetes care. We also have a Parents Group, which is a great support both to parents of those with younger children with diabetes, and of course to the children themselves who get to meet others with diabetes.

Contact:

Leeds Support Group
Tel: 07840 686618
Email: diabetesleeds@hotmail.co.uk
c/o Lawrence Glyn (Chair)
30 Moorland Drive
Moortown
LEEDS
LS17 6JP.

Another useful website is
www.yorkshirediabetes.com

4.3 Other useful services

Information for mental health Leeds mind

Offer a range of services and information including self-help and support groups, counselling, supported housing and employment.

MIND Head Office
Clarence House,
11 Clarence Road
Horsforth
Leeds
LS18 4LB

Tel: 0113 3055800

Email: leeds.mind@leedsmind.org.uk
website: www.leedsmind.org.uk

Mental health in Leeds

Provides resources and information about mental health for people in Leeds and its surrounding areas.

www.mentalhealthleeds.info

Health advocacy service

The Health Advocacy Service is part of the NHS. It is free and strictly confidential. It is about providing people with the support they need to become better users of the service provided by the community. It is a service provided by professionals who are able to communicate effectively e.g. speak different languages on behalf of the clients. The health advocates will help with provision of information

and advice, provide language support and mediation, help users register with GPs, dentists and opticians, do home visits and health promotion activities.

For more details contact PALS (p50).

Bilingual health advocacy service

Bilingual Health Advocacy Service works with many general practices. The service helps local people from ethnic minority groups who speak Bengali/Sylheti, Chinese, French, Somali, Turkish or Vietnamese (sessional languages: Arabic, Turkish, Bengali, Urdu, Hindi, Chinese, French, Polish, and Spanish). The service improves access, providing information and support to individuals, including support in consultations.

The service provides cultural training and education to health professionals.

For more details contact PALS (p50).

Sharps disposal service

If you are using needles or lancets then these must be disposed of in a yellow 'sharps' bin, which you can get on prescription from your Doctor. Once the bin is full this should be taken back to your GP surgery.

4.4 Community education

Do you want to increase your skills, knowledge and confidence in managing your diabetes?

- The local X-PERT Diabetes programme is a six-week group education programme presented by health professionals from Leeds Community Diabetes Service.
- Each of the six sessions will last for 2½ hours.
- You will learn all about the latest treatments and management of diabetes.
- You will have the opportunity to explore and address problems that you may have with your diabetes.
- The programme has been shown to improve diabetes control, increase self-management skills, and improve lifestyle and quality of life.

Courses run throughout the year all across the city of Leeds.

To book your place or find out your nearest venue and forthcoming dates please complete the form on page 55, telephone: 0113 8434200 or email to book your place

**E-mail address;
longtermconditions@nhs.net**

It is important to attend all the sessions. If this is not possible, we recommend that you attend all those that you can. If you wish you may bring along a family member or friend.

Please complete the form on page 55.

Expert patients programme courses

Sick of not feeling well?

This course can help! A free six session course for people with long term conditions or disabled people

Who is this course for?

Anyone with a long term health condition who wants to learn to manage and improve their health.

What does it involve?

- Attending a weekly 2 ½ hour session every week for 6 weeks (first and last sessions last for 3 hours). It's very informal and refreshments will be provided.
- Joining in group discussions and activities (as much or as little as you want).
- Meeting people, having fun and feeling better.
- Help with transport is provided.

What will I learn?

- Managing your symptoms and improving how you feel.
- Relaxation.
- Breathing easier.
- Healthy eating and nutrition.

- Exercise and how to improve fitness, flexibility and strength.
- Communicating effectively.
- Dealing with anger, fear, frustration, isolation, fatigue and depression.
- Using problem solving skills in our daily lives.
- Making information choices.
- How to make plans which work for us.
- Working together with health care professionals.

We run general courses across Leeds throughout the year for people with:

- health problems

plus special courses for people with:

- Mental Health Problems like anxiety or depression,
- Pain management courses and courses for
- People with stroke or
- Breathing/respiratory problems

For more information or to book on a course please contact us on:
0113 843 4549 or 07944 299403
Epp.account@nhsleeds.nhs.uk

X-PERT diabetes programme

**Please return slip to: Leeds community diabetes service
Freepost, RSXA-GLXR-BXZT, Long term conditions, Shaftesbury House,
480 Harehills Lane, Leeds LS9 6NG**

Email longtermconditions@nhs.net



I have diabetes and would like to attend the X-PERT diabetes programme

Name

Address

.....

..... D.O.B.....

Tel

Email address

GP name

GP address

Name of friend/family member (optional)

Ketones

Ketones are produced from the breakdown of fat. Ketones become toxic if the body is depleted of insulin, especially in Type 1 diabetes. This is more likely to occur in illness and can be found by testing blood or urine.

Liver Function Tests (LFTs)

A blood test to check your liver function.

Oral Hypoglycaemic Agents (OHAs)

Tablets that lower the blood glucose.

Protein

Urine protein is checked to test for damage to the kidneys. Protein is also found when someone has a urinary tract infection.

Retinopathy

Damage to the back of the eye (retina).

Triglyceride (Trigs)

Another type of fat in the blood. A high level may indicate an increased risk of heart disease.

Urea & creatinine

Blood test to detect any change in kidney function.

Visual Acuity (VA)

A simple eye test to check distance vision (does not replace the need to visit your optician annually).

5.2 My diabetes booklet – your comments

Thank you for giving us your feedback. We want to know what you think so that we can make this booklet as useful as possible to people with diabetes. We will take into consideration your comments and update the booklet in the future.

Please circle/underline the appropriate answer.

My diabetes: Information and resource booklet		
How useful have you found these comments		
Not useful	Useful	Very useful
Were there any sections that you did not understand?		
Yes	No	
If yes, which part/s?		

