



Diabetes and You

A more detailed guide to
controlling diabetes



*North East Lincolnshire
Clinical Commissioning Group*

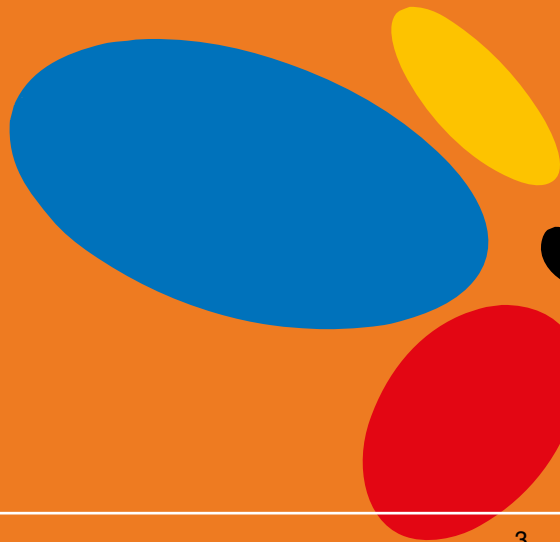
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Diabetes
and You

The sections in this booklet provide more information to help you control your diabetes. We hope you find this guide useful and would welcome your comments and feedback. There's a feedback form in your pack and it's free to post it back to us. We will try to use the feedback and comments in any updates that are produced.

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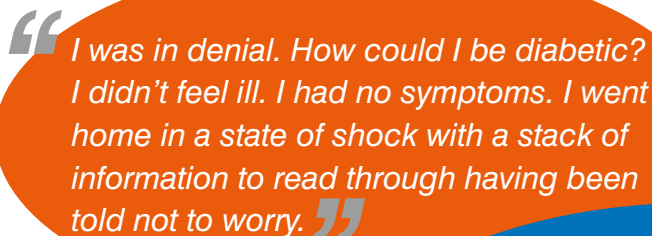


Emotions and diabetes

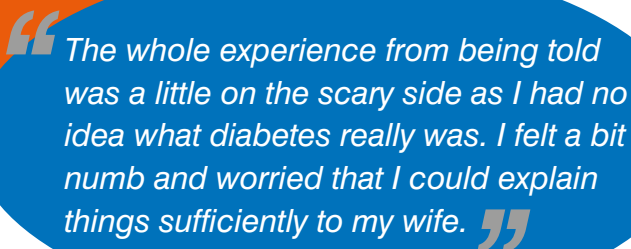
How are you feeling?

After being diagnosed with diabetes you may experience a number of emotions. It is quite common to feel surprised, frustrated, angry or worried.

Here are some comments from local people who took part in developing this booklet:



“ I was in denial. How could I be diabetic? I didn't feel ill. I had no symptoms. I went home in a state of shock with a stack of information to read through having been told not to worry. ”



“ The whole experience from being told was a little on the scary side as I had no idea what diabetes really was. I felt a bit numb and worried that I could explain things sufficiently to my wife. ”

All of these are quite usual with any long term condition and you may experience depression or low moods which can affect how you look after yourself and manage your diabetes.

What can you do?

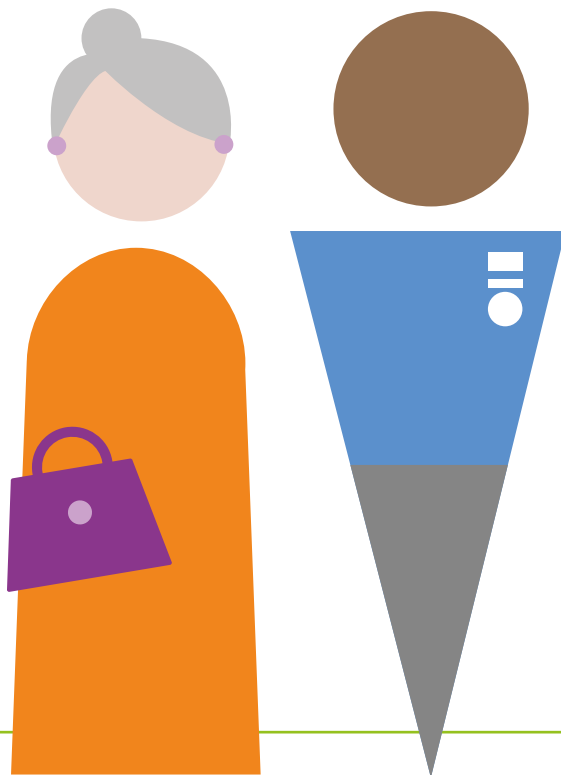
- Speak to your doctor or nurse about how you are feeling as they may refer you to a specialist who can help
- Attend a diabetes education session as meeting other people with diabetes and hearing their stories as well as learning about diabetes can be helpful (ask your doctor or nurse what is available)
- Talk to friends and family about how you are feeling as they may be able to offer you support



What to expect when you see the doctor or nurse about your diabetes

Most of the time you will see the nurse at your GP surgery for your diabetes checks and many have had special training in diabetes to best help you to manage your condition. You may also see your GP or a doctor or nurse at the hospital.

Each year you will have a diabetes review to check how well your diabetes is being managed. This will include a discussion of your test results and examination, assessment for any long term health problems (complications). It is also an opportunity for you to discuss any concerns you have and to plan with your doctor or nurse any changes that will help you to manage your condition.



What checks should you have each year?

Each annual review will include:

- A blood test to measure your glucose levels (HbA1c). This will tell you how well you are controlling your blood glucose levels
- Blood pressure check
- A measure of your blood fats (such as cholesterol)
- A foot check; your feet will be checked for any signs of problems (e.g. dry skin, ulcers), your circulation will be assessed by feeling the strength of the pulses in your feet, sensation and reflexes in your feet will also be checked
- 2 kidney checks to see how your kidneys are functioning, one check is with a urine sample and one is from a blood sample
- You will be weighed and your waist measured
- You'll be asked if you smoke and if you do you will be advised what support is available to help you stop

Each year you should also be invited to attend an appointment to have your eyes checked. This won't be with your doctor or nurse as a special team provide this service (although it may be at your GP surgery in a mobile van). A special camera will take a photo of the back of your eye to see if there are any changes. This is different from the check you have when you visit your optician so even if you have eyes tested you should still attend this appointment.

Your care plan

Your doctor or nurse should also discuss your care and how to manage your condition with you. They will also make a plan with you (called a care plan) to support you to make any changes that will help.

Before you see your doctor or nurse

You may have a lot of questions or things you'd like to discuss at your appointment and it's a good idea to write these down so you don't forget anything.

If you have a lot to discuss it's worth checking if your GP surgery has a double appointment system so you have longer for your appointment.

We have included a separate booklet "Diabetes and You. What am I going to do now?" as part of this pack to help you keep a record of your results and what you've agreed with your doctor or nurse.

Below is a comment from a member of the patient group who helped to develop this guide:



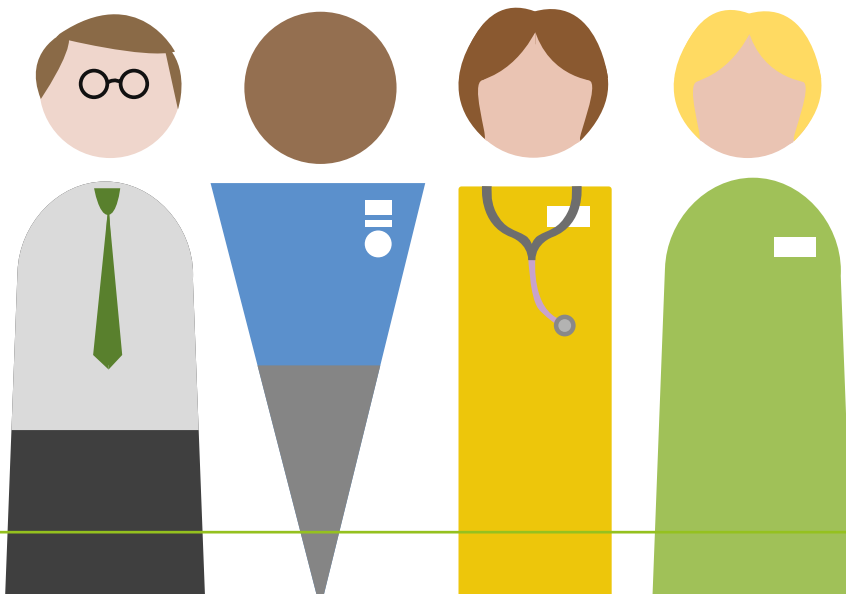
“ Make a list of what you want to ask the doctor or nurse before you go and show it to them at the start of your consultation. That way they know what they need to cover and you don't forget anything you wanted to ask ”

Who else might be involved in your diabetes care?

As well as the key person who manages your care (whether this is your GP, nurse at your GP practice or doctor or nurse at the hospital) there may be times when you are referred to a specialist to help manage your diabetes. These would include:

- **Dietician** who can help you with your diet and making lifestyle and food choices in order to manage your diabetes
- **Specialist services (clinics usually held in the hospital)** where you may see a diabetes consultant (**Diabetologist**) or a **Diabetes Nurse Specialist** who has specialist expertise in diabetes
- **Podiatrist** who manages foot problems related to diabetes as well as other foot conditions
- **Ophthalmologist** who is an eye consultant

Your doctor or nurse will discuss with you if you need to be referred for specialist support.



Long term health problems from diabetes

What can happen if I don't look after my diabetes?

We know that over time, diabetes that is not well managed can cause long term health problems (complications). This can include problems with your eyes (and may lead to blindness), problems with your feet as your circulation is affected (this can lead to amputation of toes or feet), heart and kidney disease, stroke and sexual dysfunction (such as erection problems).

However, better management of your diabetes will reduce your risk of these and the sections below detail what you can do to better control your diabetes and reduce your risk of complications.

Heart disease and stroke

Two of your annual checks are to measure your blood pressure and your cholesterol (a type of blood fat). Having high blood pressure and high cholesterol can increase your chances of heart disease and stroke.

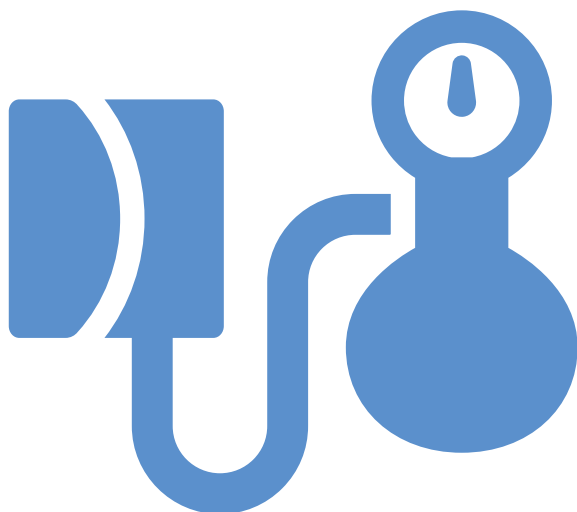
What should my cholesterol and blood pressure levels be?

Cholesterol:

- Total cholesterol of 4mmol/l or less (4mmols of cholesterol per litre of blood in your body)
- HDL cholesterol (this is a good cholesterol keeping your blood vessels healthy) 1mmol/l or above
- LDL cholesterol (this is a bad cholesterol that clogs up arteries) 2mmol/l or less

Blood pressure:

- 130/80mmHg or lower (the top number expresses your heart pumping and the lower number expresses your heart at rest)
- 125/75mmHg or lower if you have kidney or eye problems



What can I do if I have high cholesterol or high blood pressure?

Your doctor or nurse will review your medication and you can discuss with them and make a plan of what you can do to reduce your cholesterol and your blood pressure. Things you can do include:

- If you are overweight making some changes to your diet and how active you are, will help you to lose some weight and to maintain this in the future (see the 'Looking after your diabetes' section on page 24 in this guide to see what a healthy weight is for your height)
- Be more active
- Reduce the amount of salt you eat each day to 6g or less (too much salt raises your blood pressure). Most salt in our diet comes from processed foods so if you can reduce these, this will help. Try using herbs and spices to flavour foods instead of salt
- If you drink alcohol keep to within the recommended limits (2-3 units for women and 3-4 for men per day)
- Eat more oily fish (e.g. mackerel, sardines, salmon and trout); at least 2 portions a week. This boosts omega 3 and keeps your heart healthy
- Aim to eat at least 5 portions of fruit or vegetables a day
- See the 'Looking after your diabetes' sections of this guide for help with the above

Eye problems

People with diabetes can develop eye disease called diabetic retinopathy which can lead to reduced vision or even blindness. This is the most common cause of blindness in working age adults.

How will I know if I have diabetes retinopathy?

There are no signs or symptoms of this eye disease until it is in the late stages. The only way to diagnose this is to have a diabetic eye check (called retinal screening) and you should be invited to have this free check every year.

Reducing your risk of diabetes retinopathy

Everyone with diabetes is at risk of diabetes retinopathy but you can reduce your risk by:

- Lowering your blood pressure if it's high
- Managing your blood glucose levels (HbA1c between 6-7%/42-53mmol/mol)
- Attend your retinal screening appointments every year as early diagnosis leads to treatment and management of the condition

See the section on 'Looking after your diabetes' to see what you can do to achieve this.

What happens at a retinal screening check?

You will have some drops put into your eyes which will make your pupils bigger so that the camera can see the retina (part of your eye). A photo of the back of the eye will then be taken using a special camera.

The photograph will then be viewed by a specially trained technician and if there are any problems you will be referred to an ophthalmologist (eye consultant) for further tests and treatments.

As the drops in your eyes affect your vision for 2-3 hours you will not be able to drive so it's important that you make alternative arrangements for getting home after your appointment.

Kidney problems (Nephropathy)

Kidney problems can happen to anyone but they are much more common in people with diabetes and those with high blood pressure.

Your kidneys filter and clean your blood and get rid of any waste products.

When you have your annual check you will give urine and blood samples and these are used to check how your kidneys are working. Kidney disease is when the kidneys don't work properly leading to a build-up of waste products in the blood. Kidney disease develops over many years and as the disease progresses dialysis may be required.

Why are people with diabetes more at risk of kidney disease?

Diabetes can cause damage to small blood vessels which can make them become leaky or sometimes stop working, making the kidneys less efficient.

What can I do to reduce my risk of kidney disease?

- Keep your blood glucose levels as normal as possible (between 6-7%/42-53mmol/mol)
- Lower your blood pressure if it's high
- Attend your annual review check as early detection can lead to successful treatment of kidney disease

See the section on 'Looking after your diabetes' to see what you can do to achieve this.



Foot problems

Diabetes can affect the blood vessels which transport blood around the body and a decrease in blood supply makes skin damage more likely and once infected slower to heal. Nerves which transmit impulses to and from the brain can be damaged which can result in a loss of sensation in the feet and this may mean damage to the feet goes unnoticed.

Diabetes can affect your feet and lead to serious foot problems and in some cases this may lead to amputation of toe/toes, foot or lower part of the leg.

What to look out for

- Pain (although if the nerves are damaged you may not feel pain)
- Swelling or red areas that last a long time
- Blistering, breaks in the skin, discharge
- Feet or legs changing colour
- Hard skin or corns with dark discolouration underneath
- Soggy skin especially between the toes

If you notice any of the above see your doctor or nurse straight away.

What can I do to reduce my risk of foot problems?

- See section 'Looking after your diabetes' for help and advice on how to care for your feet

Sexual dysfunction

Sexual dysfunction is more common in people with diabetes as poorly controlled diabetes can damage the blood vessels and nervous system leading to sexual problems or loss of sexual desire in around half of men and a quarter of women with diabetes.

Sexual dysfunction in men

The most common sexual problem is erectile dysfunction (sometimes called ED or impotence) and is the inability to get and/or keep an erection for sexual intercourse.

The likelihood of this problem increases with age.

Possible causes of ED include poor glucose control, being overweight, drinking too much alcohol, as well as some medications and psychological factors (e.g. stress, anxiety, depression).

What can I do to reduce my risk of ED?

- Keep your blood glucose levels, cholesterol and blood pressure levels to target
- Work towards a healthy weight, drink alcohol in moderation, keep active and stop smoking
- If you are concerned about, or experiencing ED, speak to your doctor or nurse. You may find this very difficult, however this is quite a common problem and there are some very effective treatments available

Sexual dysfunction in women

Women may experience pain with intercourse due to vaginal dryness and a loss of sexual desire. Thrush is a common condition made worse by high blood glucose levels which can make sex uncomfortable.

What can I do to reduce my risk?

- Good diabetes control will help to prevent this. See the 'Looking after your diabetes' section to see what you can do to control your diabetes.
- As in men, sexual dysfunction can be a result of emotional and lifestyle factors. If you are experiencing sexual difficulties speak to your doctor or nurse.

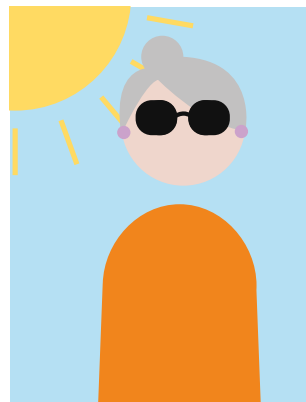
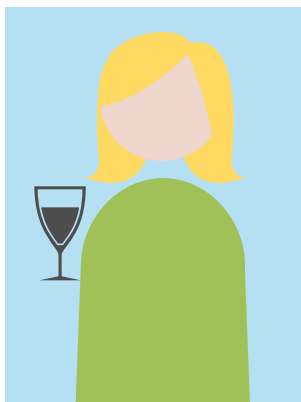
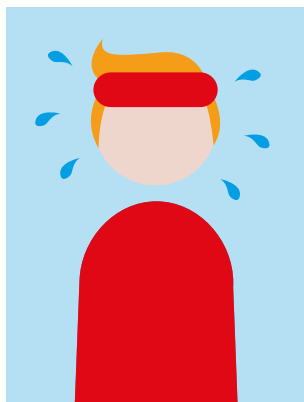
Hypoglycaemia (hypo) & Hyperglycaemia (hyper)

Hypoglycaemia (hypo) occurs when the blood glucose levels fall too low, usually below 4mmol. Hypos only occur with insulin and certain types of diabetes tablets.

What causes a hypo?

A hypo may occur if you have:

- Taken too much diabetes medication/insulin
- Delayed or missed a meal or snack
- Not eaten enough carbohydrate (bread, rice, pasta)
- Taken part in more strenuous exercise than usual
- Been drinking alcohol
- It can also occur in hot weather



What are the symptoms?

You usually experience some warning signs as your body tries to raise your blood glucose levels. These include:

- Sweating/going pale
- Trembling/heart racing
- Feeling light headed/dizzy/confused
- Nausea
- Feeling hungry

What should you do if you experience a hypo?

As soon as you notice the warning signs of a hypo take action immediately to prevent it becoming more severe.

- Drink a small glass (100-120mls) of lucozade OR a larger glass (200mls) of a non-diet drink (e.g. coke or lemonade)
- Or take 5-6 glucose or dextrose tablets if you have these
- Eat some sugar, jam or honey
- Eat 5-6 jelly babies
- Drink 200mls pure fruit juice
- Chocolate is not a good treatment as it takes longer to have an effect, however you can use it if there is nothing else available
- Sit still and re-check your blood glucose in 10 minutes

If your symptoms have not improved and /or your glucose reading is still below 4mmols, repeat the treatment.

Follow on treatments

To prevent your blood glucose levels falling again eat some longer acting carbohydrate such as:

- Half a sandwich
- A small bowl of cereal
- Fruit
- Biscuits and milk

Severe Hypos

If you have a severe hypo you may become unconscious. In this case an ambulance should be called and they can inject you to reverse the hypo.

Hypos left untreated can be very unpleasant and occasionally dangerous so take action as soon as you notice the symptoms.

We've also included some advice in the Family and Friends Guide to Diabetes.

Hyperglycaemia (Hyper)

Hyperglycaemia is when the blood glucose is raised too high (over 10mmol/L).

What causes a hyper?

- You've missed your medication
- You've eaten more carbohydrates than your body can cope with
- You're stressed
- You're unwell from an infection
- You've over treated a hypo

What are the symptoms?

- Passing more urine, especially at night
- Feeling very thirsty
- Tiredness/lethargy
- Headaches
- Nausea/vomiting

What should you do if you experience a hyper?

If your blood glucose is high for a short time you won't need to take any action. But if the symptoms continue you should:

- Drink plenty of non-sugary drinks
- Consider taking extra insulin - your doctor or nurse will advise you about this
- Contact your doctor or nurse if you are vomiting or if the symptoms happen regularly

Diabetic ketoacidosis

Consistently high blood glucose levels can lead to diabetic ketoacidosis (DKA) which is a serious condition that if left untreated can be life threatening.

A severe lack of insulin means the body can't use glucose for energy and so breaks down other body tissue to use instead. This produces poisonous chemicals called Ketones which the body tries to flush out, so you become very thirsty and pass more urine.

DKA mainly occurs in patients with type 1 diabetes and very rarely in patients with type 2 diabetes.

When is diabetic ketoacidosis most likely?

- At diagnosis (if someone with type 1 hasn't been diagnosed until they are ill with Diabetic Ketoacidosis)
- When you are ill
- If you have not taken your insulin

What are the symptoms?



What should you do if you suspect Diabetic Ketoacidosis

- Contact your doctor or nurse straight away
- Drink plenty of unsweetened fluid

Preventing Diabetic Ketoacidosis

Diabetic Ketoacidosis is usually avoidable. Always take the correct amount of insulin for your food and activity levels and speak to your doctor or nurse if you have any concerns

Looking after your diabetes

There are lots of things that you can do to help to control your diabetes which were mentioned in the quick guide. This section has more information about what action you can take to look after yourself and manage your diabetes well.

Attend diabetes education sessions

There may be a diabetes education session that you can attend to help you to better understand your diabetes. These sessions will provide you with lots of information, allow you to get answers to your questions (although remember you can always ask you're your doctor or nurse) and you'll meet other people who have diabetes. Ask your doctor or nurse about education sessions you can attend.

Carbohydrates and diabetes

What you eat and drink affects your glucose levels.

The types of foods called carbohydrates break down into glucose in the blood causing glucose levels to rise. Understanding which foods are carbohydrates can help you to achieve good glucose control.

What are carbohydrates?

Carbohydrate is the body's preferred source of energy and fall into 2 main types:

Starchy foods

These include bread, pasta, potatoes, rice, noodles and cereals. If you can, it's better to eat wholemeal versions and eat potatoes with their skin on as these have more fibre which makes you feel fuller for longer.

Sugars

There are 2 types:

- Natural sugar e.g. fruit & milk sugar
- Added sugar e.g. caster/granulated sugar, honey, cakes, biscuits, sweetened cereals

Why do you need to know about foods with carbohydrates when you have diabetes?

When you eat foods with carbohydrates (carbs) your body breaks down the carbs and your blood glucose levels go up. When you have diabetes your body either doesn't produce or can't use insulin properly which helps to control your glucose levels.

So if you eat a lot of carbs in one meal (e.g. a bowl of pasta and some garlic bread) this will raise your glucose levels a lot.

Eating the right amount of carbs at each meal as well as taking your medication (including insulin if you use this) can help you to keep your blood glucose levels closer to where they should be.

Is it best to avoid carbohydrates now you're diabetic?

No, you should continue to eat carbohydrates as part of your diet as you need them for energy, but be mindful about what foods you put together and how much carbohydrate you eat in each meal.

What can I do?

The 2 things to be aware of are:

The amount of carbohydrates you are eating in one meal. The larger the carbohydrate portion the higher your blood glucose levels will rise. So being aware of which foods are carbohydrates and how much you are eating in one meal and in a day can help you to manage your blood glucose levels.

The type of carbohydrate you eat. Sugary drinks such as cola and juice will cause a sharp fast rise in your blood glucose level. Being aware of what food and drinks contain carbohydrates can help you to manage your glucose level well.

How much carbohydrate should you eat?

You should aim to have a $\frac{1}{3}$ rd of what you eat as carbohydrates and eat between 5 and 14 portions per day spread out evenly across the day's meals (this will depend on your age, weight and activity levels, ask your doctor or nurse about what's right for you).

What does a portion look like?

One portion is equal to:

- 2-4 tbsp cereal
- 1 slice of bread
- 2-3 tbsp rice, pasta, couscous, noodles or mashed potato
- 2 new potatoes or half a baked potato
- 2-3 crispbreads or crackers

Carbohydrates and insulin

If you use insulin to manage your diabetes you may be advised to carb count to help manage your glucose levels after eating and match your insulin to your carbohydrate intake.

Twice daily insulin

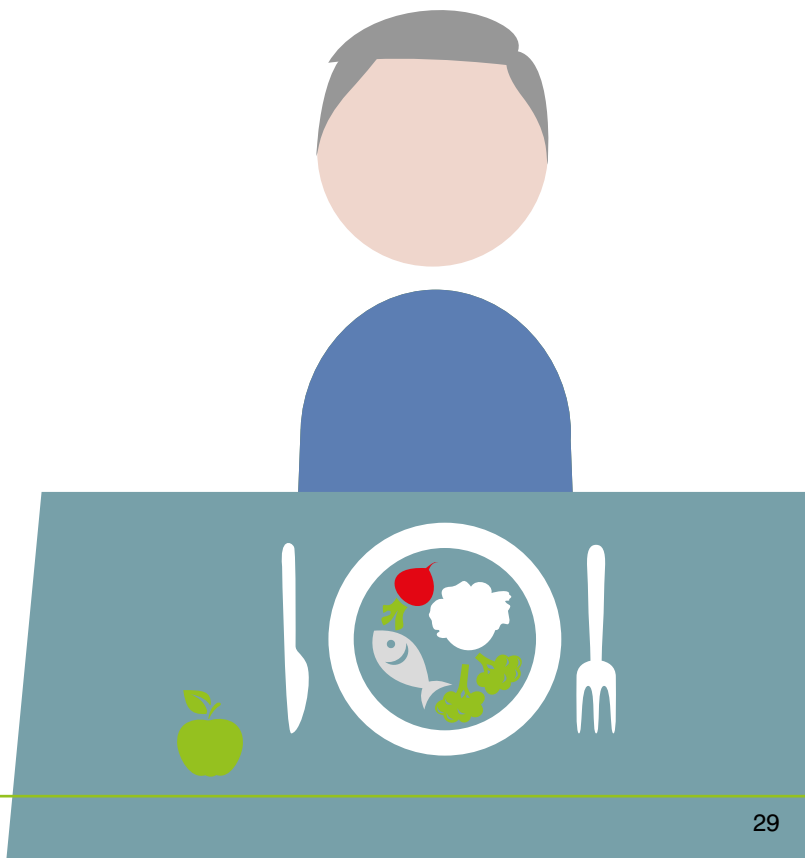
If you are taking fixed amounts of insulin twice daily, you may find it helpful to have the same amounts of carbohydrates each day and eat similar amounts at the same time. More carbohydrates than usual will cause your glucose levels to rise and less than usual could result in a hypo.

Basal bolus insulin

If you are using a basal bolus regime or a pump for your insulin, you can be more flexible in the amount of insulin you take and when. This means you can count the carbohydrates in each meal and adjust your insulin level depending on how much carbohydrate you have eaten. Your doctor or nurse will assist you with this and there are various resources to help you count carbs (ask your doctor or nurse). You should also see a dietician.

Managing your weight

It's good for everyone to have a healthy weight but it is especially important now you have diabetes, whether you have type 1 or type 2.



How do I know if I need to lose weight?

You can see if you need to lose weight by seeing how much you weigh or measuring your waist.

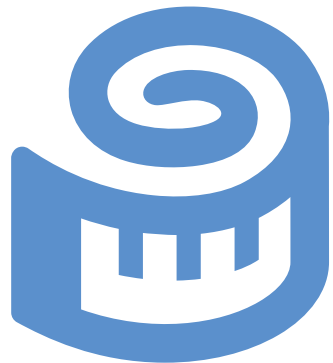
How to measure your waist

Find the bottom of your ribs and the start of your hips and measure in between the two. For most people this will be where the tummy button is.

What should your waist measurement be?

- White and black men should be below 37 inches (94 cm)
- Asian men should be below 35.5 inches (90cm)
- White, black and Asian women should be below 31.5 inches (80cm)

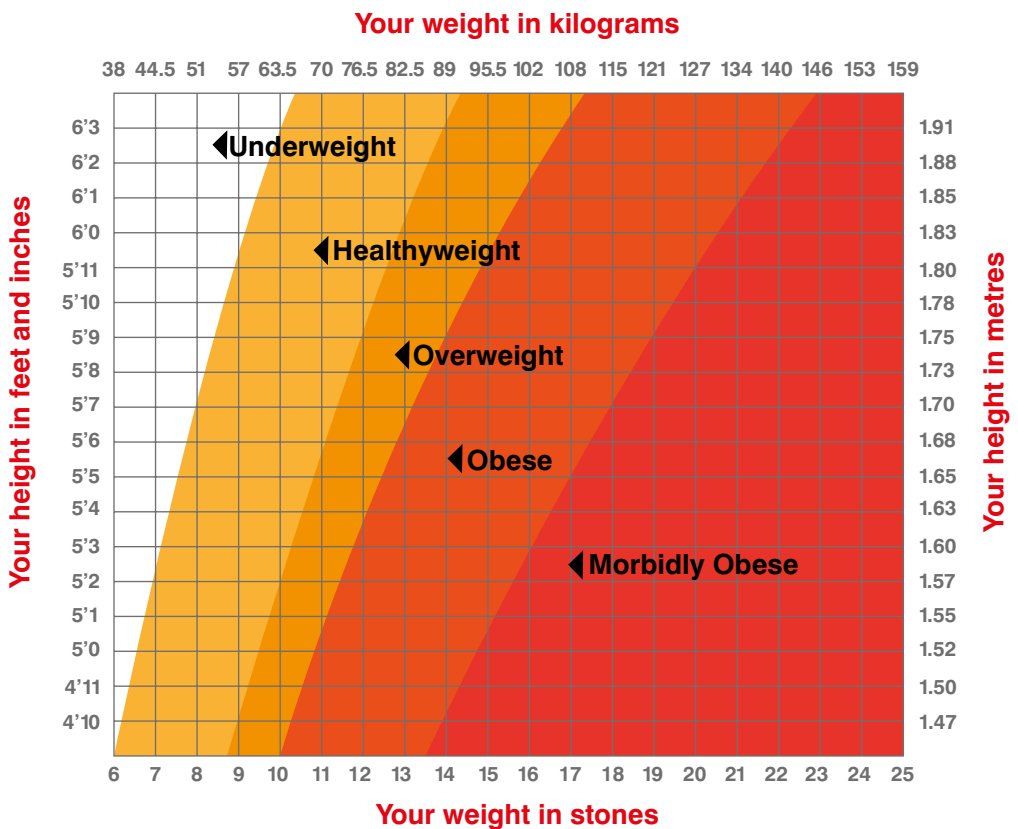
If your waist measurement is more that the above then losing some weight and reducing your waist measurement will help to improve your diabetes control and reduce your risks of developing some diabetes complications.



What should I weigh?

See the chart below to see what a healthy weight is for your height.

If you are a lot heavier than your healthy weight on the chart, don't worry. Making some changes will help you to lose weight and keep it off and some weight loss is better than none at all or gaining weight. If you are overweight, studies show that losing 10% of your body weight can improve diabetes control, cholesterol and blood pressure. The important thing is to keep up the healthier eating and activity habits which will help you to control your diabetes.



Why having a healthy weight can help manage your diabetes

Being overweight makes diabetes control more difficult as excess weight, especially around your middle makes it hard for the body to use insulin properly. Losing weight can help you to better control your diabetes and lower your blood fats (cholesterol) and your blood pressure. As these can increase your risk of long term health problems related to diabetes such as heart condition and stroke if you can get to a healthy weight you can reduce your risk of these.

Can my medication increase my weight?

Some medications may promote weight gain, such as certain diabetes medications and insulin, steroid medication, some tablets used to treat raised blood pressure and depression. If you feel this could be a problem, discuss it with the doctor or nurse at your next review.

What can you do to lose weight?

When you take in more energy through your food and drink intake than you use up by being active, you put on weight. When you use more energy than you take in, your body uses up the fat reserves and you lose weight.

So the best way to lose weight is to reduce the amount of energy you take in each day through what you eat and drink and increase your activity to use up more energy.

Getting motivated

Losing weight can be hard so before you begin it may be worth thinking and listing down the benefits to you to motivate yourself to make a start.

What benefits will losing weight bring?

As well as helping you to control your diabetes, reduce your cholesterol and blood pressure levels and reduce your risk of complications, there will be some added benefits to you. These might include:

- Getting in to clothes that you haven't been able to for a while
- Opportunity to buy some new clothes
- Being able to run around the park or garden with your children/grandchildren
- Being able to run for the bus without getting out of breath

Try writing your own list to see what the benefits would mean to you.

What losing weight would mean to me?...



What might stop you from losing weight?

There are a number of things that might stop you making changes to lose weight. Thinking about these and what you can do to overcome them can help you to make the changes. Here are some of the common things that stop people losing weight and what you could do.

I don't have time to cook or to exercise

Plan meals ahead and when you could exercise. This will not only help you to have a healthier meal, it can save you money as you use the food you have bought and have less waste.

Not having time to exercise is a real problem – but like other things if you want to do it you need to find a way around it. Plan exercise time ahead to fit in with your day. For example, could you go for a quick walk before work or during your lunch break or get off the bus a stop earlier and walk the rest.

Make double portions of meals and freeze them for when you don't have time to cook.

I can't afford to eat healthily or to exercise

Plan your meals ahead and you are more likely to use the ingredients that you have bought and throw away less.

Buy canned and frozen fruit and vegetables (in juice or water) as these can be as good for you and are often a cheaper option and last much longer than fresh items.

Buy fruit and veg that are in season as these tend to be cheaper.

Make your own meals & look out for quick healthy meal recipes. Making a healthier meal doesn't have to take hours of preparation and as well as being healthier for you it's cheaper – especially if you are cooking for two or more. Look out for quick healthy meal cookbooks (if you don't want to buy one look at your local library) and if you have access to the internet you'll find lots of recipe ideas.

Exercise for free; Exercise doesn't mean you have to join a gym or pay for classes. See below for more ideas.

I have a sweet tooth and get tempted when I'm shopping

You could try doing your food shop on line so you can't be tempted or you could decide to make a swap for something healthier. (see the section below) Try not to go shopping when you are hungry.

I have tried to diet before and end up putting the weight back on

A diet suggests a beginning and an end. Changing your eating and exercise habits rather than being on a diet will help you to keep the weight off.

Look at why you eat (e.g. boredom/stress) and do something else instead of eating during these times (e.g. go for a walk).

Before you eat between meals ask yourself 'am I really hungry/ do I need this snack'?

What can you do to manage your weight?

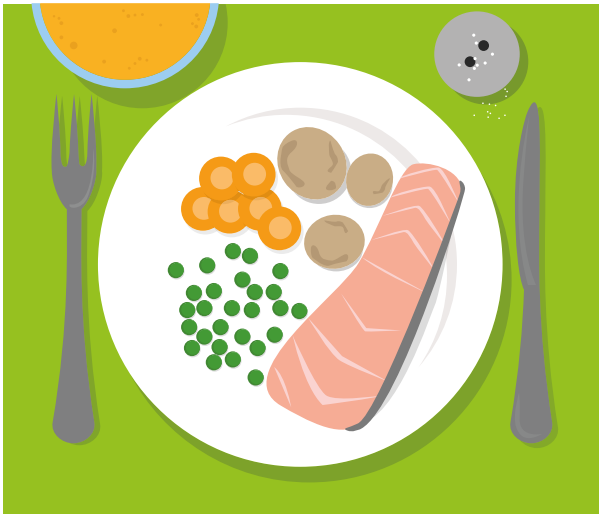
Making realistic changes that you can keep to will help you to lose weight and keep the weight off. Making lifestyle changes to your drinking and eating habits is far more likely to help you maintain a healthy weight than fad diets.

Make a commitment

Losing weight isn't easy but if you make a commitment to get started and make the lifestyle changes below, you will lose weight and maintain it.

The key things to look at are:

- What you eat and how much you are eating
- How active you are and how you can become more active



Food choices

People with diabetes don't require a special diet but what you eat and drink is important in controlling your condition. Don't be tempted to skip meals to lose weight as this will affect your glucose levels. Thinking about where you could make changes to what you eat and drink will help you to reach your goal.

Making small changes at a time that you can stick to will mean that you are more likely to keep the weight off in future as you develop healthier eating habits.

The best weight loss is slow, around 0.5kg - 1kg (1lb - 2lbs) a week.

The following applies to everyone who wants to lose weight, whether you have diabetes or not so is suitable for all the family.

When thinking about what changes you could make you may want to focus on:

Your portion size:

Large portions even of healthier foods can make you heavier. Food portions today are much bigger than they were 30 years ago so it's easy to eat more than you need.

Reducing your portion size will help you to lose weight.

What could you do to help reduce your portion size?

- Swap your plate and bowl for smaller ones - you'll have a smaller portion but it will look like you have more food
- Swap a large meal for a smaller one with fruit for dessert
- Eat only as much food as you need
- Eat slowly as it takes 20 minutes for your stomach to let your brain know you're full
- Don't eat with the T.V. on as you're likely to eat more without noticing or enjoying your food

What you eat

As well as how much you eat, what you eat will make a big difference to you managing your weight.

To achieve a healthy balanced diet you should try to eat:

- 5 fruit and vegetables a day – this should make up about a $\frac{1}{3}$ rd of what you eat each day (fruit is fine to eat when you have diabetes but be mindful of the portions of fruit you eat in one meal as they may contain sugars which will affect your glucose levels)
- Carbohydrates such as bread, rice, potatoes and pasta – this should make up another $\frac{1}{3}$ rd of what you eat in a day, but again be mindful of how much you eat in one meal as carbohydrates convert to glucose in your body

- Less fat and sugar (such as cakes, biscuits, butter, cream, pies, pastries, chocolate and oil). Try to eat just a small amount of these
- Less salt as this can raise your blood pressure. Adults should eat no more than 6g per day (about a teaspoonful)

To help you lose weight, as well as thinking about and making changes to your portion size, think about what you eat and what changes you could make.

What can you do to lose weight?

Eat fewer calories per day;

Calories are the amount of energy that's in food. The more calories you eat the more difficult it will be to lose weight.

How many calories should you eat each day?

This will depend on how active you are, but on average to maintain your weight men can eat 2500 calories per day and women 2150.

If you want to lose weight you'll need to reduce this. Ideally you'd reduce it by 500 calories per day but eating just 100 calories less per day (or using up 100 extra calories through increasing your activity levels) can help you to lose weight (about 8-11 lbs over a year). The weight loss will be slow but this is the best way to maintain it in the future.

The chart overleaf shows which foods have around 100 calories per portion. You can also check on food labels to see the calorie count per serving.

100 calorie portions

Biscuits

- 1 chocolate biscuit
- 1 1/2 digestives
- 2 Jaffa cakes

Milk & milk products

- 1 oz full fat cheese
- 2 tbsp double cream
- 1/2 oz butter

Fats/fried foods

- 1 tbsp oil
- 1 small roast potato
- 1 oz low fat spread

Sauces & jams

- 1 tbsp mayonnaise
- 2 tbsp salad cream
- 7 tsp jam

Sweets, chocolates & sugar

- 1/2 small bar chocolate
- 1 tube fruit pastilles
- 1 oz toffee
- 1 fun size bar
- 4 Rolos
- 5 tsp sugar

Cakes & bakes

- 1/2 hot cross bun
- 1/2 doughnut
- 1/3rd Danish pastry

Crisps & snacks

- 1/2 oz peanuts
- 1 small packet crisps

Pastry

- 1/2 mini pork pie
- 1/2 sausage roll
- 2 small Yorkshire puddings

Puddings & desserts

1/2 portion of fruit pie

1/2 portion of apple crumble

1 ladle of custard

2 scoops of ice cream

Drinks

1/2 pint of beer or lager

1/2 pint cider

1 small glass of wine

1 glass of cola

2 pub measures of spirit

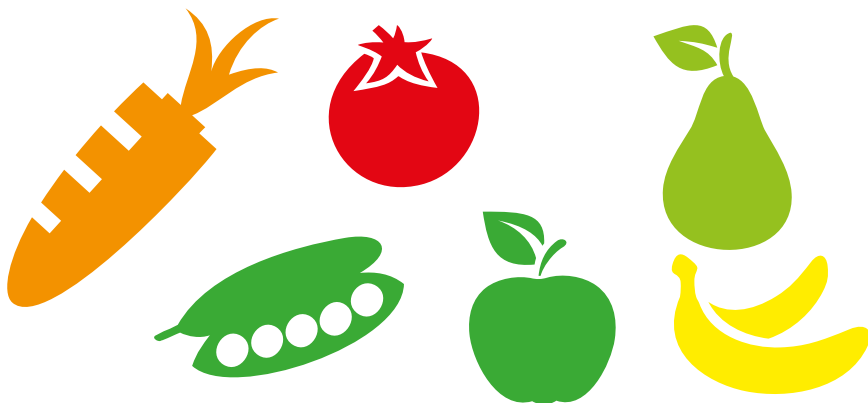
2 glasses of lemonade

2 glasses unsweetened
fruit juice

2 glasses fruit squash

Replace other food choices with more fruit and vegetables;

Vegetables contain fibre which fills you up for longer so you are less likely to over eat and it can also help to reduce cholesterol.



Ways to eat more vegetables

- Add more vegetables to your meal and reduce other items on your plate
- Add salad to your lunchtime sandwich such as lettuce, tomato and cucumber as this will help fill you up
- If you tend to snack why not try eating vegetables. Carrot sticks, radishes and sugar snap peas make handy healthy snack food.

You should try to aim for 5 portions of fruit and vegetables every day.

What does a portion look like?

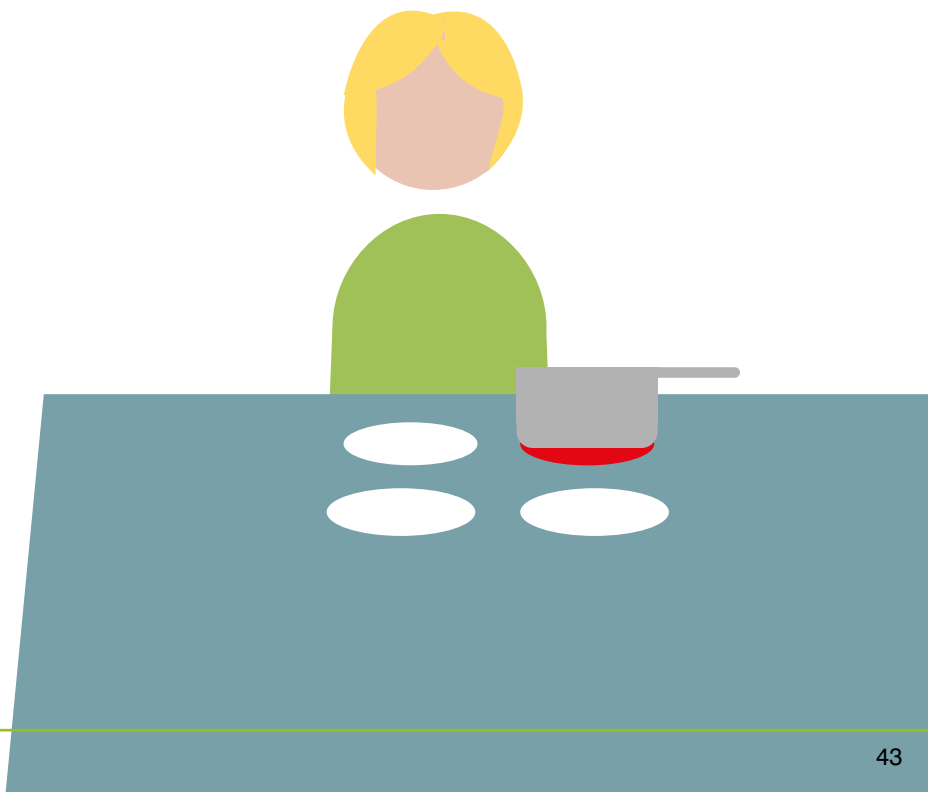
- 2-3 tablespoons of vegetables
- 1 dessert bowl of salad
- 1 piece of fruit
- 2 small fruits (e.g. Satsuma or plums)
- 2 tomatoes
- 2-3 tablespoons of tinned fruit in natural juice
- 8-10 small fruits such as grapes and strawberries

Cut down on fat and sugar

Processed foods (such as ready meals) are often high in fat so check the label. Lower fat versions often contain more sugar which can also increase your weight and affect your glucose levels.

Try to avoid ready meals and make your own (which can be cheaper as well as healthier) but if you need to have a ready meal check the label when you're buying it and choose one that is lower in saturated fat.

Keep high sugar foods such as biscuits and cakes for occasional treats.



How much fat is in different foods?

Below is a list of different foods and the levels of fat they contain.

Very high fat/calorie foods

Cream
Oil, butter, margarine
Mayonnaise, creamy dips and some salad dressings
Cheese
Nuts

Medium to high fat/calorie food

Chocolate, cakes & biscuits
Crisps & cheesy crackers
Chips & roast potatoes
Mashed potato with fat added to it
Ice cream
Full fat milk & yogurts

High fat/calorie food

Fried food (e.g. fried rice)
Takeaways
Pizza
Meat with fat
Pastries, pies (savoury and sweet)
Desserts made with cream or pastry
Meat products e.g. sausages and burgers

Low fat & low calorie

Chicken, turkey, fish, lean meat
Beans and lentils
Fruit
Starchy carbohydrate e.g. pasta, rice, cereal, potato, bread, crumpet, teacake
Low fat milk & low fat yoghurt

Fat free and very low calorie foods

Vegetables

Salads

Sour fruit

Fat free dressings

Diet and low calorie drinks

Change the way you cook

Instead of frying try grilling, boiling, poaching or steaming food. For example grill bacon or chicken instead of frying, poach an egg instead of frying and steam vegetables or fish.

If you do fry use a spray fat to minimise the amount you use.

Cut fat off meat and the skin off poultry (e.g. chicken) before cooking.

Use semi skimmed milk and half fat cheese for cooking.

Use less salt in cooking. Instead use pepper, herbs and spices to flavour foods.

Make a swap


You don't have to give up everything you enjoy eating, but making some swaps can make it easier to stick to long term and will help you to lose weight.

If you find yourself wanting chocolate, biscuits or cakes try a small handful of dried fruit (e.g. cranberries, raisins or a couple of apricots).






If you drink sugary fizzy drinks these are high in sugar and calories. Try swapping for a diet version or a glass of sparkling water with a slice of lemon or lime.

When you're busy, distracted or bored you might look for a snack, often these are high in sugar or fat. If you find it difficult to cut out the snacks altogether, try making a swap for something healthier.

Snacks you might reach for;

-  Chocolate
-  Crisps
-  Sugary drinks
-  Cake
-  Pork scratchings

What could you swap it for?

-  Vegetable sticks (e.g. carrot, cucumber, cooked mini sweet corn)
-  Lower fat yoghurt
-  A few unsalted mixed nuts
-  Lower fat crisps or baked snacks
-  Low calorie/diet drink

Packet swap

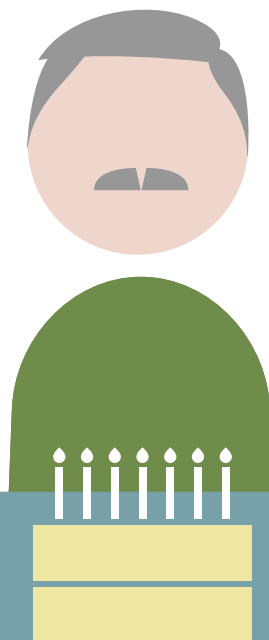
If you tend to eat straight from a large packet (e.g. large packet of crisps) you're likely to eat more and not realise it. You could swap the large packet for a small bowl to put some of the crisps into.

Celebrations, eating out and bad days

Although a healthy diet is key to everyday living with diabetes, there will be times such as celebrations (e.g. birthday parties) which may involve eating foods you would normally try to limit. These are times to enjoy the occasion and so long as you get back to healthy eating the next day you don't need to miss out. Increasing your physical activity after the meal can help to control your glucose levels e.g. taking a brisk walk can make all the difference.

Everyone has "bad days" when their good intentions go by the wayside. The important thing is to get back to healthy eating the next day and there's no need to feel guilty.

As well as reducing the amount of energy you take in, using more energy through increasing your activity levels will also help you to lose weight.



How does being more active help me to look after my diabetes?

It helps keep your blood glucose levels down by helping the body to better use insulin. As well as burning up energy and so helping you to manage your weight, it can also have other benefits:

- It helps to relieve stress and improves your mood
- It helps to lower your blood pressure
- It can improve your cholesterol level
- It keeps your heart healthy
- It can help you to sleep better

What can I do?

Aim to do 30 minutes of moderately intense exercise 5 times a week. Moderately intense means that you get slightly out of breath (so you breathe harder but can still talk), your heart rate increases and you feel warmer.

If you feel 30 minutes is too much for you then start with a shorter amount and build up. If you are short on time you could do 3 lots of 10 minutes during the day instead of one lot of 30 minutes.

Increase your activity levels gradually to let your body get used to it. Make some small changes such as getting off the bus a stop earlier and walking the rest of the way or leave the car at home and walk short distances.

Being more active doesn't have to mean going to the gym. Choose an activity or activities that you can enjoy and that will fit in with your day so you can realistically maintain the activity on a regular basis. It could include any type of activity that gets you slightly out of breath, increases your heart rate and makes you feel warmer. For example, housework (e.g. cleaning windows, vacuuming or sweeping the patio), gardening (e.g. mowing the lawn), walking, running, exercise DVD, chair-based exercises, cycling, dancing or swimming.

You can find out from your local council, libraries and leisure centres what organised activities are available in your area if you prefer to have some structure to your activity.

Set yourself some realistic goals. If you have something to aim for both short and long term you're more likely to stick to your increased activity. Keep a list of what you've achieved as this can help you to see the progress you've made.

Here's a comment from a member of the patient group who helped to develop this guide:

“I've lost weight (nearly 4 stone) through eating more fruit and vegetables every day, sometimes frozen as they are easier to cook, eating more wholemeal foods and exercising regularly using a tread mill at home which makes me sweat! It's also meant I've reduced the amount of medication I'm on.”

What if I'm not very mobile?

Start increasing your activity levels by taking very small walks and slowly your body will get used to it. You may want to do some armchair exercises using cans of food and lifting these up and down and gradually building it up.

What if I already do 30 minutes activity 5 times a week?

If you are already quite active but you want to lose weight it's worth increasing your activity levels as this will help you to achieve your goal.

I have a heart condition. Is it safe to increase my activity levels?

The best thing to do is to speak to your doctor or nurse about this first.

Summary of what you can do to manage your weight and help control your diabetes

- Make small changes at a time that you can stick to
- Reduce your portion size
- Eat less sugary and fatty foods – keep them for treats on occasions, not the norm
- Plan your meals ahead and shop in advance to have the ingredients to hand
- Eat more vegetables and reduce other foods on your plate

- Grill, poach, bake or boil rather than frying food
- Make a swap
- Plan how you can increase your activity level and make gradual changes
- Aim for the activity to get you slightly out of breath and feeling warmer. The ideal amount is 30 minutes each day but if you can't do 30 minutes in one go try 2 lots of 15 minutes
- Take up an activity that you enjoy and that fits with your lifestyle

Home monitoring your glucose levels

You and your doctor or nurse may decide it would be beneficial for you to monitor your glucose levels outside of your appointments with them (remember they will monitor your glucose levels when you have your review).

Does everyone need to self-monitor?

No, you should only test if you need to, if you know what the results mean and you can act on them. For many, the monitoring done when they visit their doctor or nurse is sufficient.

When might I need to test?

- If you take insulin and can adjust the dose as a result of the test
- If you drive
- To help you to be aware of how what you eat and drink affects your glucose levels so that you can make changes to better manage this

How often do I need to test?

This will depend on what you are testing for. See the “Driving and Diabetes” booklet for advice on testing and driving. Speak to your doctor or nurse to agree if testing is right for you and how often you would need to do this.

It's more important to understand what the results mean and to be able to act upon them than it is to collect lots of results.

How can I self-test?

There are 2 ways to self-monitor:

1. Using a blood testing meter

You take a small drop of blood by pricking your finger onto a test strip. The test strip is placed into a meter which tells you your results.

Where do I get the test strips and the meter from?

You should only ever use test strips supplied by prescription through your GP. There are some test strips to buy on the internet but you are advised not to use them as they may be out of date and may not be compatible with your meter.

As your doctor or nurse will supply strips from an agreed list you should check with them about which meter you should use. Your doctor or nurse may provide you with the meter although you can buy these from the chemist but it's best to speak to your doctor or nurse first to see which machine is right for you and to make sure that they supply the test strips for the machine.

How can I benefit from testing?

Blood testing can tell you how your blood glucose levels differ day to day. It may highlight to you times when your blood glucose is too high or too low and you can use this information to help you make decisions around food choices and activity.

2. Testing your urine for glucose

The other way to self-monitor is test your urine for glucose. To do this you hold a special urine testing strip under your stream of urine and after a set time you check the colour on the strip against a chart (provided with the strips).

Testing your urine is less accurate than testing your blood as it only shows when you have higher than 10mmol/l of glucose in your blood which is high. It will not show when your glucose levels are low and some people get glucose in their urine at low levels. Your doctor or nurse will discuss with you if this is the right way to test for you.

Stopping smoking

If you have diabetes and you smoke, this greatly increases your chances of having a heart attack, stroke and problems with blood supply to your legs.

Giving up smoking is the best way to reduce your risk and there are lots of additional benefits:

- Saving money
- Increased energy levels
- Improved smell and taste
- Health benefits: reduce risk of heart attack by half of a smoker (after 5 years)

Giving up can be hard and you may have tried before but now you have diabetes it's even more important to keep trying.

There are lots of ways to get support to stop smoking.

See the separate "What am I going to do now?" booklet for more information about local support.

Medication

Having diabetes can mean that as well as eating healthily and increasing your activity levels you may need to take tablets or use injections to help achieve good levels for glucose, blood pressure and cholesterol to better manage your diabetes and it's common for people to be on more than one type of medication.

What diabetes medication is available?

For Type 1

Insulin injections

For type 2

Treatment is available in both tablet and injection form and there are many different types.

How do the tablets or injections work?

The treatments work by:

- Encouraging the pancreas to make more insulin
- Helping the body to use insulin more effectively
- Encourage the pancreas to release the correct amount of insulin in response to the carbohydrates you have eaten

It's important to take your medication as prescribed to help manage your diabetes.

What can you do?

- If you are prescribed tablets ask your doctor, nurse or the pharmacist what they are for and when to take them as different tablets may need to be taken at specific times
- Try to get into a routine of taking your medication
- If your medication makes you feel unwell talk to your doctor or nurse to see if there is an alternative (there may well be). It is better to speak to your doctor or nurse first rather than just stop taking your medication as this can affect your diabetes control

Looking after your feet

As mentioned in the 'Long term health problems' section diabetes can affect your feet. As well as attending your annual review which includes a foot check there are lots of ways to look after your feet and keep them healthy.

- Check your feet daily for any signs of redness, damage to the skin, swelling or build-up of hard skin. Look for any blisters or breaks in the skin. If your eyesight isn't very good, could a member of your family check for you?
- If you notice damage or ulcers see your doctor or nurse straight away
- You (or a family member) can cut your toe nails but cut the nail straight across (so not down the sides) and use a nail file to smooth the sides down. Cutting your nails this way will help to prevent ingrowing toenails.

- Feel inside your shoes for any seams or stitching that could rub the feet
- Manage your blood glucose levels (see 'Looking After Your Diabetes' section)
- When you have your annual review your feet will be checked (you will need to remove your shoes and socks) and you will be told your risk of developing foot problems. If you have an increased risk you may be referred to a foot specialist (podiatrist). Make sure you keep your appointment.



Travel

People with diabetes can travel to anywhere in the world just the same as those who don't have diabetes. But there are some things you might need to consider and to plan for before travelling.

Before you go

- If you are travelling with insulin and syringes it is vital to obtain a letter from your GP to help prevent any problems at the airport
- Take more medication with you than you would normally use so that you have enough for any emergency
- If you take medication or use insulin and your flight crosses time zones speak to your doctor or nurse before you travel
- Be mindful that hot or cold climates can affect your glucose monitor and your blood glucose
- Make sure you have travel insurance
- Check where you can get extra medication while you are away in case of emergency
- Think about how you will store your insulin – will you have access to a fridge?
- If you treat your diabetes with a pump or continuous glucose monitor it's essential that you contact your airline before you travel. Also check if it can be scanned and if not you should notify the airport and see if they have an alternative way to check
- Pumps must be disconnected before entering a body scanner

Packing your bags

- Put your diabetes supplies in your hand luggage, distribute some supplies amongst your travelling companions if needed
- If you're flying, make sure you have some supplies in your hand luggage in case a bag is lost
- Pack enough snacks to allow for delays
- Insulin must not go into the aircraft hold as freezing temperatures will render it useless

Managing your diabetes when you're ill

Illness and infection as well as other forms of stress can raise your blood glucose levels. This is because as the body fights the infection it releases more glucose into the blood stream. People who don't have diabetes release more insulin to manage this but with diabetes you can't do this and so your blood glucose levels rise. The increased glucose levels will make you pass more urine and feel thirsty and you can become dehydrated.

Severe dehydration can be serious for both type 1 and type 2 diabetes. But if you are prepared you can avoid the worst of these effects.

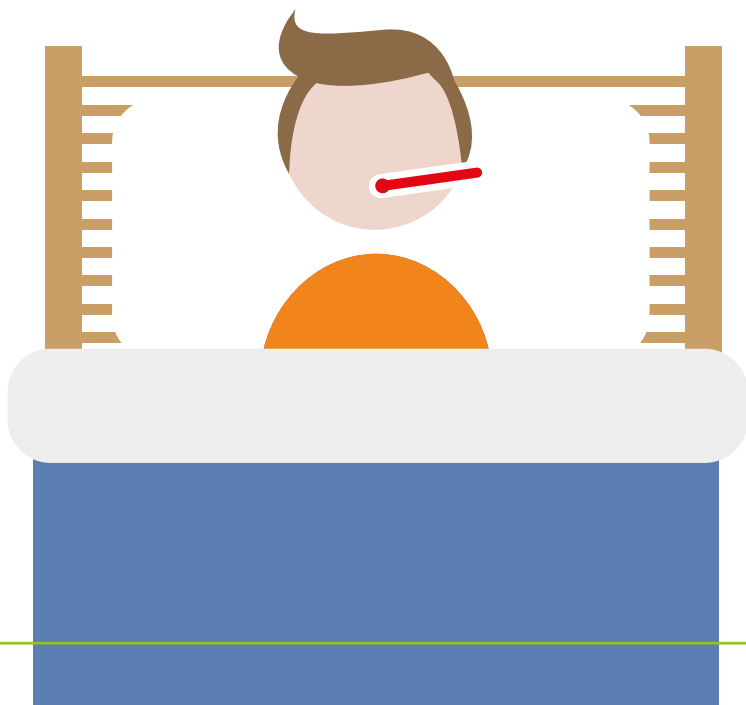
What can you do to be prepared?

- Have your vaccines against flu each year and pneumonia as recommended. These vaccinations are recommended for everyone with diabetes
- Keep some sugary drinks in as you may not feel like eating if you are ill but sugary drinks that provide some carbohydrate can be easy to manage
- Looking after your diabetes when you are ill can be hard work. Is there someone who can help you if you become ill? In the Family and Friends pack there is some information on how they can help so you may want to share it with them
- Keep your GP/practice nurse or diabetes team telephone number to hand so that you or someone helping you can contact them if needed

What to do when you are ill?

- Never stop taking your insulin even if you can't eat anything, as your glucose levels will rise dangerously high. You may need to alter your dose, if you're not sure contact your doctor or nurse
- Try to keep taking your diabetes medication if possible, if you are not able to do this contact your doctor or nurse for advice
- If you test your blood do this more often, every 4 hours. If you don't test then be aware of the signs of hyperglycaemia and if someone else is helping to look after you make sure they are aware of the signs too

- Keep hydrated by drinking lots of unsweetened drinks, aim for at least a glass of fluid every hour and if possible eat little and often
- If you can't eat, it's still important to take in some carbohydrates at meal times. If you can eat something try soup, ice cream or milk pudding or, if you can only drink take small sips of sugary drinks (e.g. $\frac{1}{3}$ rd glass of Lucozade, non-diet coke/lemonade) or suck on glucose tablets or sweets such as jelly beans to give you some carbohydrates
- If you are vomiting or can't keep drinks down contact your doctor or nurse straight away



What to do if you need to go to A&E

If you need to go to A&E you may need to wait before you are seen. Take some snacks with you should you need to eat and make sure you tell someone when you arrive that you have diabetes and that you may need to eat something (usually people in A&E are advised not to eat in case they need surgery). If you do need to eat make a member of staff in A&E aware first.

Going into hospital

There may be times when you need to stay in hospital (long or short stay) whether for your diabetes or something else. Below are some things that may help you to be prepared for your stay and what to expect.

- If you use insulin take some with you as it may take some time for the hospital to arrange a supply of the one you use
- Take your own equipment (e.g. pump or blood testing strips and monitor) as the hospital probably won't be able to supply these
- Your blood sugar levels may go up due to stress and/or periods of inactivity
- Ward staff should be aware that you have diabetes but it's always best to mention it
- If you want to manage your diabetes care (e.g. injecting insulin, testing etc.) during your stay and it's safe for you to do this, you should be supported by the hospital
- Take a supply of biscuits, sugary drinks or glucose tablets in case you experience a hypo so you have these on hand

If you are planning on having a baby or if you are pregnant

If you have type 1 or type 2 diabetes and are planning on having a baby it's very important that you discuss this with your doctor or nurse who will refer you to a special pre-conception clinic where you will be given advice about how to have a safe pregnancy for you and your baby. You are advised to continue to use contraception until you have had this discussion.

There are risks for you and your baby but getting the best advice before you start your pregnancy and acting on these will reduce these risks.

The pre-conception clinic will discuss with you the importance of controlling your blood glucose levels both before and during your pregnancy to minimise the risks of serious complications that can occur from high glucose levels.

If you are pregnant

If you are pregnant and have not had advice from your doctor, nurse or pre-conception clinic you should contact your doctor or nurse straight away so that you can receive the advice and support to have a safe and healthy pregnancy.

What am I going to do now?

Now you've read the guide you may want to make some changes to help you manage your diabetes well.

See the "What am I going to do now?" booklet for help with what changes you could make and getting started. There's also information about where to get help and advice.



North East Lincolnshire CCG would like to thank the members of the patient group who through their own experiences of living with diabetes helped to shape the guide, members of Accord who reviewed the guide and local clinicians who provided the expertise.

If you or someone you know would like a copy of this document in any other language, large print format or braille please call 0300 3000 500 or email NELCCG.askus@nhs.net

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