



Everyday life with  
**Type 2 diabetes**

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# Everyday life with Type 2 diabetes

**You're bound to have a lot of questions about living with Type 2 diabetes. There's a lot of information out there, and it can be confusing to understand what it all means. We'll help you get to grips with it.**

In this guide, we set the record straight, giving you the facts about diabetes and how you can treat it. We give you the information you need to look after yourself to stay healthy and list the care you should get from your diabetes healthcare team.

You'll also find out that for some people, it is possible to put your diabetes into remission. This is when your blood sugar levels are below the diabetes range and you don't need to take diabetes medication anymore. This could be life-changing.

You'll hear from people like you on how they manage their lives with Type 2 diabetes. We give you lots of tips to make your life easier – and there's a handy glossary at the back to help you get the most out of this guide.

If you sometimes find it all a bit overwhelming, there's a lot of support available to you, so don't be afraid to ask for help from your healthcare team. And, you can always send us an email or pick up the phone if you want to talk – see the back cover for ways to get in touch.

Armed with all the facts, and understanding what you and your healthcare team need to do, Type 2 diabetes doesn't need to get in the way of you living a full, long and healthy life.

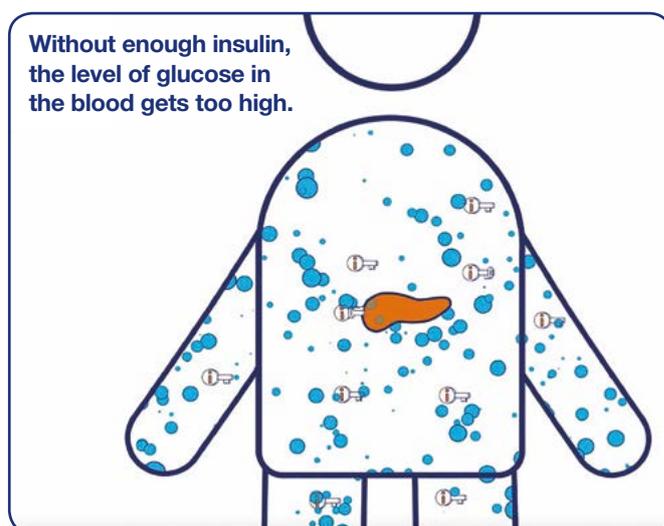
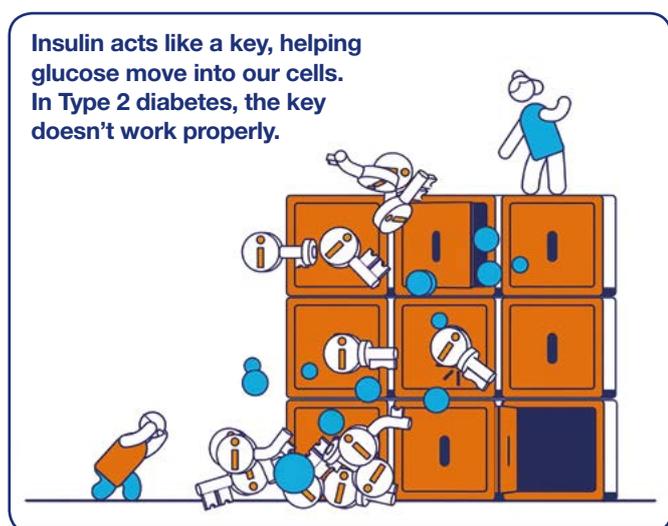
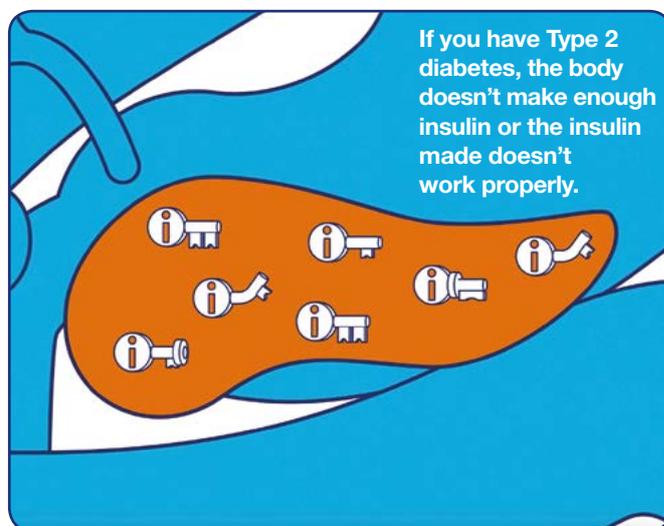
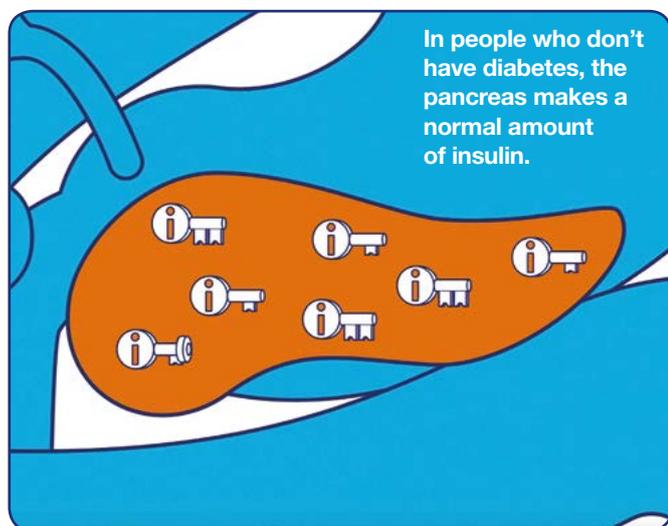


# What is Type 2 diabetes?

**Type 2 diabetes is a serious condition. It develops when your insulin-producing cells can't produce enough insulin. Or when the insulin you do produce doesn't work properly – called insulin resistance. This leads to high blood glucose levels. We tend to call blood glucose by its other name, blood sugar. This is what we'll call it in this guide.**

**If left untreated, high blood sugar levels can cause serious health complications.**

To watch our what is Type 2 diabetes video, go to [www.diabetes.org.uk/t2-what-is](http://www.diabetes.org.uk/t2-what-is)



## Symptoms

You may not have had obvious signs. That's particularly true in the early stages. But you may have noticed:

- going to the toilet more often, especially at night
- feeling more tired
- losing weight without trying
- genital itching or thrush
- cuts and wounds taking longer to heal
- blurred vision
- feeling extremely thirsty.

## Causes

It's a combination of lifestyle and genes that puts you at risk of getting Type 2 diabetes. Things that increase your risk include:

- **Age.** If you're over 40 – or over 25 if you're African-Caribbean, Black African, or South Asian.
- **Weight.** If you're overweight – particularly around your belly.
- **Ethnicity.** If you're Black African, African Caribbean, South Asian or Chinese.
- **Family link.** If you have a parent, brother or sister with diabetes.
- **Previous medical history.** If you have a history of high blood pressure, heart attack or strokes, gestational diabetes or severe mental illness.

## Treatment

There are three main treatments:

- healthy eating, being physically active and keeping to a healthy weight
- medication – tablets and injections which may include insulin
- weight loss surgery (bariatric surgery).

People with Type 2 diabetes are likely to be on a combination of these treatments. Everyone's different and it takes a while to find out what works best for you. But most people will need to make lifestyle changes – things like making healthier

food choices, being more active and losing weight if you're overweight.

Your treatment may well change over time – either the type of medication or the dose. Your diabetes healthcare team will talk to you about how you manage your diabetes.

## Family and friends

It's worth encouraging your friends and family to see if they're at risk. In the UK, 12.3 million people are at increased risk of developing Type 2 diabetes, but three out of five of them could avoid or delay it by taking action in time. You can get your friends or family to check their risk at [www.diabetes.org.uk/t2-risk](http://www.diabetes.org.uk/t2-risk)

### Need to know

The good news is that you can make a difference to how you're affected by Type 2 diabetes. The main ways you can do this are by:

- making healthier food choices
- being as physically active as you can
- avoiding putting on extra weight and trying to lose excess weight
- setting yourself goals to improve your health
- taking your medication as prescribed
- getting support, for example going on an education course, to look after yourself – see page 28
- going to your healthcare appointments.

If Type 2 diabetes isn't managed well, it can lead to devastating complications like heart attacks, stroke, kidney failure, blindness, amputation and death. But these aren't inevitable. This guide is here to help you manage your diabetes and reduce your risk of these complications.

You can also go to our website at [www.diabetes.org.uk](http://www.diabetes.org.uk) or call our helpline on **0345 123 2399** or **0141 212 8710**, if you're in Scotland, for information and support.

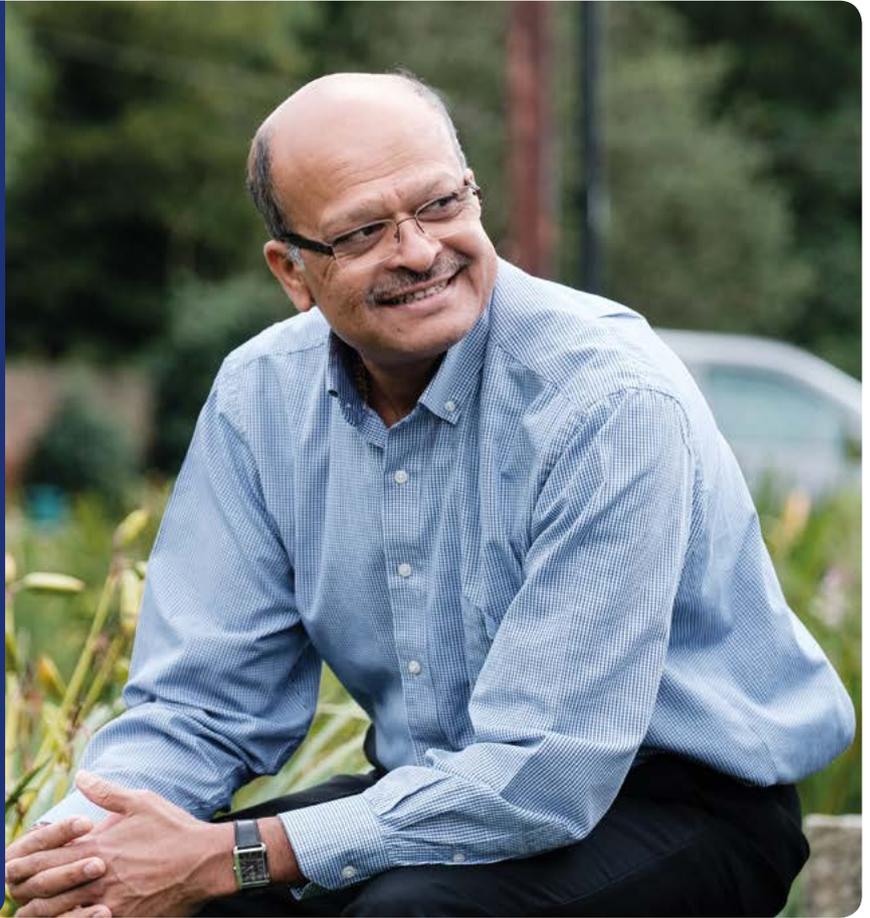
# Meet Rohit

**Rohit, from North London, has had Type 2 diabetes for 16 years**

“I was diagnosed in 2003. I didn’t have any symptoms, but I’d asked to get tested roughly every two years once I’d turned 40, as there’s a very strong diabetes history on my father’s side of the family.

It’s very important to educate yourself about Type 2 diabetes and how to deal with it. Knowing that diabetes is a condition that can be controlled is so vital.

Take care of your lifestyle from the start and work at it until it becomes a good habit. That will eventually help you to be in control.”



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## Some questions

### What's the difference between Type 1 and Type 2 diabetes?

Type 1 diabetes and Type 2 diabetes are caused by different things and managed differently.

Type 1 develops when insulin-producing cells in the pancreas are destroyed. It's more common in younger people, particularly children. It's treated with insulin – either via injections or a pump – eating healthily and keeping active.

You'll have developed Type 2 because, even though you can make insulin, you don't make enough. Or, the insulin you do make doesn't work properly. It tends to develop in older people – over 40, or over 25 if you're African-Caribbean, Black African, or South Asian. It's treated with eating healthily, keeping active, and quite often medication is needed.

### Can children get Type 2 diabetes?

It's true that more children are developing Type 2 diabetes. Using the most recent UK figures, we estimate over 6,000 children or young people are living with Type 2 diabetes. It's still very rare and the majority of children with diabetes have Type 1 – which can't be prevented and isn't linked to lifestyle. This guide is only for adults living with Type 2 diabetes.

### Is Type 2 diabetes serious?

The truth is, yes, it can be. The complications can be serious. But this guide is here to help you manage the condition, make sure you're getting the right care and reduce your risk of complications.

### Is there a cure?

At the moment, there isn't a permanent cure for Type 2 diabetes. But there's strong evidence that shows some people can put their Type 2 diabetes into remission through weight loss – either by following a low-calorie diet with long-term support from a healthcare professional, or through weight loss surgery. We also know that some people in remission got there by losing weight through the Mediterranean diet or a low-carb diet. Everyone is different and what worked for one person may not work for another.

### What's remission?

Remission in people with Type 2 diabetes means your blood sugar levels are below the diabetes range and you don't need to take diabetes medication. It can be life-changing.

To have the best chance of putting your diabetes into remission, you have to aim to lose a substantial amount of weight (15kg or 2.5 stones) within three to five months. Studies show that remission is more likely within six years of diagnosis.

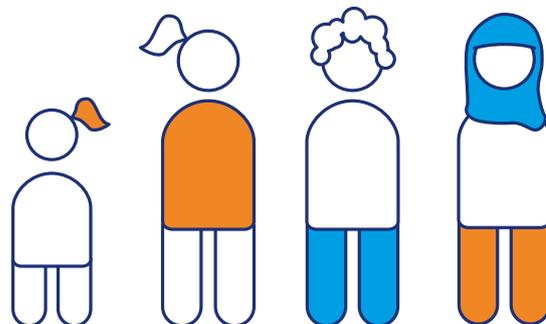
Strong evidence for remission comes from following a nutritionally balanced low-calorie weight management programme or having bariatric surgery. But there are different ways to lose weight and it's important to find the right approach for you. Ask your healthcare team for advice.

Committing to making long-term healthy lifestyle changes will help to maintain your weight loss and keep your diabetes in remission. It's also essential to continue going to your diabetes reviews and eye screening each year to check your diabetes is still in remission and you are free of complications.

Not everyone who loses weight will be able to put their diabetes into remission, but there are still benefits from losing weight. These may include a reduced risk of complications, taking fewer medications, better mental wellbeing, improved mobility, energy and sleep.

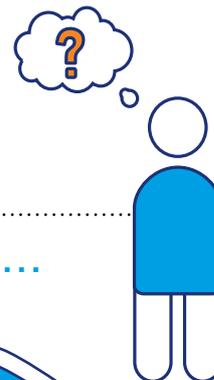
If you have any other health conditions, talk to a healthcare professional before you begin any intensive weight loss plan. Also, check if you need to reduce or stop taking any medications before you begin losing weight.

To find out more about remission, go to [www.diabetes.org.uk/t2-remission](http://www.diabetes.org.uk/t2-remission)



# Putting the record straight

People say lots of different things about diabetes – but not all of it's true. And, knowing the facts about diabetes is important when it comes to managing it. There's so much information out there, and it's often difficult to know what's right and what's not.



Here are some of the most common myths about diabetes...



**Myth: “Type 2 is a mild form of diabetes”**

This isn't true. Type 2 diabetes is a serious medical condition. But the good news is that lifestyle changes and the right treatment can really make a difference. It doesn't have to stop you living a full life.



**Myth: “People with diabetes can't play sport”**

That's not true. It's good for you to be active – physical activity and exercise have lots of health benefits and reduce your risk of complications, including heart disease. See page 48 for more on exercise.

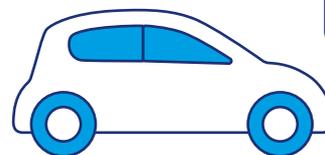


**Myth: “People with diabetes can't have sugar”**

That's not true either. But as a general rule, we should be eating less sugar, specifically free sugars. These are often added by manufacturers to food and drinks but also include the natural sugars in honey, syrups and fruit juices.

As some foods like sauces, ready meals and flavoured water contain hidden sugars it can be difficult to know how much sugar you are consuming. That's why it's important to check food labels and ingredients lists.

Cutting down on sugar can also help to manage your weight and diabetes.



**Myth: “It's not safe to drive if you have diabetes”**

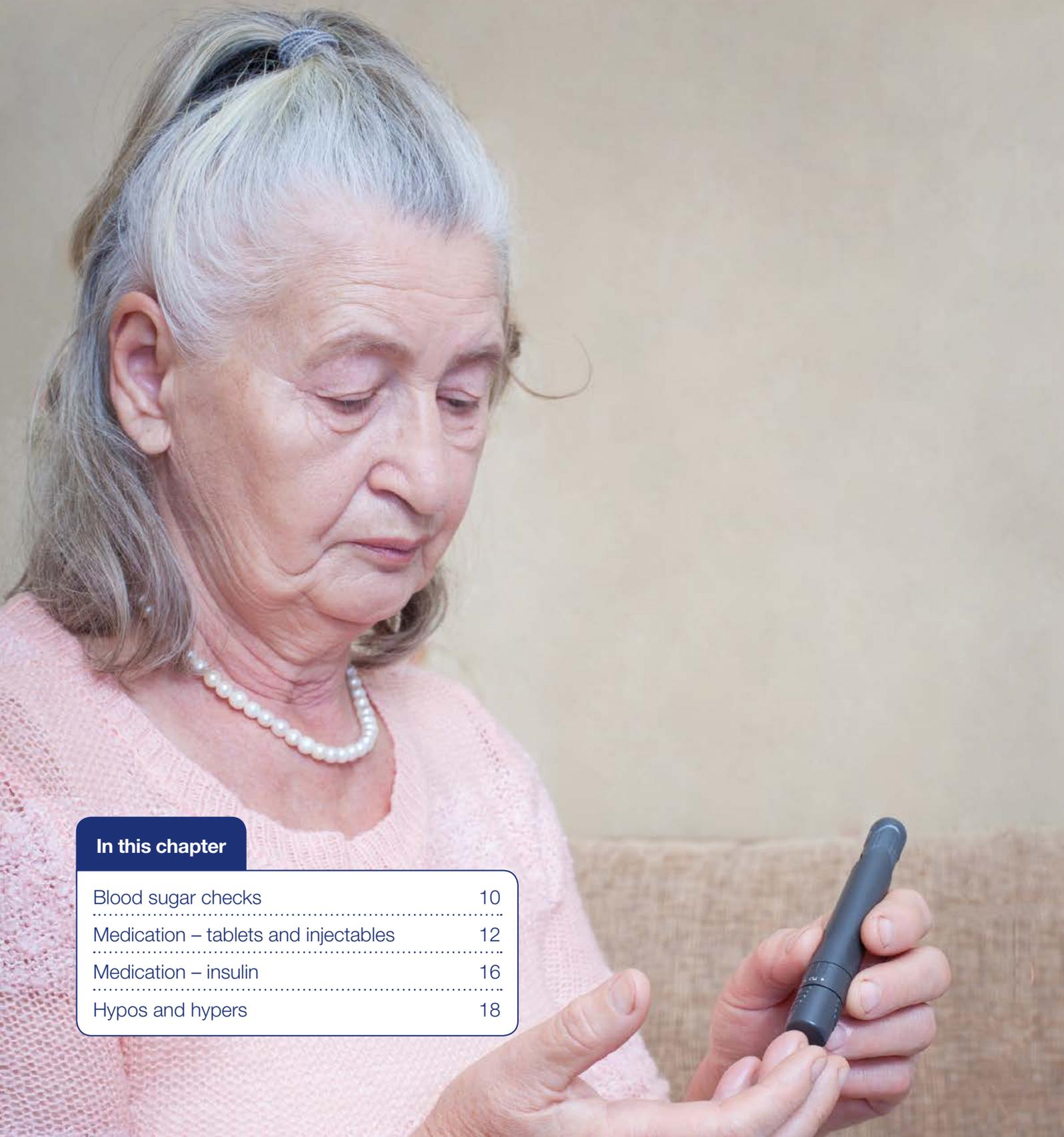
Yes, you can drive. So long as your blood sugar levels are in your target range, it's as safe for you as it is for anyone else out there. See page 60 for more on driving.



**Myth: “People with diabetes should eat diabetic foods”**

There's no need to eat special diabetic foods. They don't have any health benefits, are often high in fat and calories, and can cause an upset stomach. In fact, companies aren't allowed to label their food and drinks diabetic anymore.

# Treatment



## In this chapter

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# Blood sugar checks

**So that you can keep track of your diabetes, you may be asked to check your blood sugar levels.**

Not everyone with Type 2 diabetes will be advised to do their own checking. Your diabetes healthcare team will discuss with you whether it's right for you, when and how often.

The test measures the amount of sugar (glucose) in your blood and tells you if you have high or low sugar levels. You'll use a blood glucose meter to do this. If you choose to buy your own meter, you might not get a prescription for the test strips it uses. Check with your healthcare team.

## What should I be aiming for?

You'll agree a target figure with your healthcare team. It's normally between 4–7mmol/l before meals, and less than 8.5mmol/l two hours after meals.

### Tips for checking blood sugar

- 1 Wash your hands with soap and water – don't use wet wipes as they can affect the test result.
- 2 Make sure your hands are warm – it's easier to get blood and it doesn't hurt as much.
- 3 Prick the side of your finger – not the index finger or thumb. Don't prick the middle, or too close to a nail.
- 4 Use a different finger and a different part each time.
- 5 Keep a diary of your results – you'll be able to spot trends and it will help your healthcare team decide whether your treatment needs to change.

### My agreed targets



Before meals:

After meals:

### Need to know

- Ask what your target is. It's important to know your target blood sugar level. This lets you and your healthcare team know how you're doing and if things can be improved.
- Medication, food and activity levels affect your blood sugar levels every day. If you understand how they affect your own levels, you can change what you eat, what you're doing and get advice on your medication.
- It's all about knowing your own diabetes so that you can plan it around your life – and not the other way around.

### Some questions

#### **My doctor won't prescribe any more test strips for me. What can I do?**

We're aware that some people with Type 2 diabetes who could benefit from checking their blood sugars are having test strips restricted. If this happens to you, challenge it with your GP practice. If that doesn't work, then with your local health decision makers.

Find out how we can help you raise your issue at [www.diabetes.org.uk/t2-test-strips](http://www.diabetes.org.uk/t2-test-strips)

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# Medication

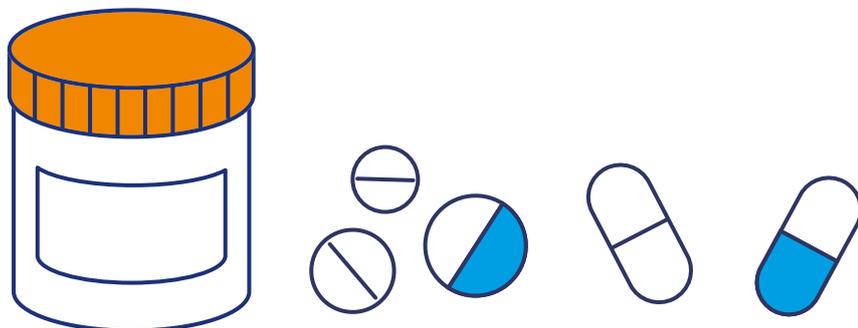
## Tablets and injectables

**You may not need medication when you're first diagnosed. Lifestyle changes – like being active, losing excess weight and making healthier food choices – may be all that's needed. It could be that you manage your diabetes without medication for a long time.**

But at some point most people with Type 2 diabetes will also need to start taking medication. This doesn't mean that you've done anything wrong. It's just that your body needs more help to keep blood sugar levels within a healthy range. All medications work in different ways, so your healthcare team will speak to you about what's best for you.

It's important to think ahead about what you want to ask your healthcare team before starting on a new medication. These are the kind of questions you could ask:

- What's the effect on my diabetes?
- Will I lose or gain weight?
- Is there anything else I can do to avoid taking it?
- When and how often do I need to take it?
- How do I take it? Orally or injection?
- Are there any side effects?
- Do I need to take medication forever?



### Tips for remembering your meds

- 1 Make a schedule. If you take more than one medication, make a schedule showing when to take them each day and in what order. Ask your pharmacist to help.
- 2 Use a pill box. Get one that has separate days of the week – you can get organised a week at a time.
- 3 Keep your meds handy. Keep them somewhere you will see them, but away from children's reach – near your TV, computer or with your toothbrush.
- 4 Use an alarm. Set reminders on your phone or computer.

### Side effects

Diabetes medications are safe but, like all drugs, they may have side effects or interact with other medicine you take. If you need more information, speak to your healthcare team or pharmacist. The patient information leaflet given with your medicines also has more details.

## Diabetes medications

### Biguanides

**Metformin is the only biguanide used in the UK. It's usually the first treatment, especially if you're overweight.**

**How it works:** It stops the liver releasing stored sugar (glucose), reduces the amount of sugar absorbed from the food you eat and helps the body's insulin work better. It can help with weight loss.

**When to take it:** Two or three times a day, with a meal. It's taken as tablets for immediate release – up to three times a day – or slower release – usually once a day. It can also be taken as a liquid for immediate release.

### Sulphonylureas

**Examples include gliclazide, glipizide and glibenclamide.**

**How they work:** They stimulate the cells in the pancreas to make more insulin. They also help insulin work better. The main side effect is low blood sugar levels (hypoglycaemia, see page 18).

**When to take them:** Tablets taken once or twice a day with, or just before, meals.

### Alpha-glucosidase inhibitors

**Acarbose is the only one used in the UK.**

**How it works:** It slows down how quickly you absorb starchy foods. This slows down the rise in blood sugar levels after meals.

**When to take it:** Tablet chewed with the first mouthful of food, or swallowed whole with a drink before food.

### Prandial glucose regulators

**Examples include repaglinide and nateglinide.**

**How they work:** They stimulate the cells in the pancreas to make more insulin. Unlike sulphonylureas, they work quickly but only last a short time. A side effect is low blood sugar levels (hypoglycaemia, see page 18).

**When to take them:** Tablets taken up to three times a day about half an hour before each meal. If you miss a meal, you don't take them.

### Thiazolidinediones (glitazones)

**Pioglitazone is the only one in this group.**

**How it works:** It helps overcome insulin resistance so that you use your natural insulin better. It also helps to protect the cells in the pancreas, so that you're able to keep producing insulin for longer.

**When to take it:** Tablets taken once or twice a day, with or without food.

### Incretin mimetics (GLP-1 analogues)

**This isn't insulin but is given by injection. Examples include exenatide, liraglutide, dulaglutide, albiglutide and lixisenatide.**

**How they work:** They increase levels of hormones called 'incretins', which help your body make more insulin as it's needed, reduce the amount of sugar (glucose) made by the liver when it isn't needed, and reduce the speed at which you digest food. They also reduce appetite.

**When to take them:** Injection taken once daily, twice daily or once weekly – it depends on the type.

### DPP-4 inhibitors (gliptins)

**Examples include sitagliptin, vildagliptin, saxagliptin, alogliptin and linagliptin.**

**How they work:** They stop the enzyme DPP-4 from destroying incretins. Incretins help the body make more insulin when it's needed and bring down the levels of sugar (glucose) made by the liver when it's not needed.

**When to take them:** Tablets taken once or twice a day with or without food – it depends on the type.

### SGLT2 inhibitors

**Examples include dapagliflozin, canagliflozin and empagliflozin.**

**How they work:** They reduce the amount of sugar (glucose) absorbed in your kidneys. It's then passed out in your urine, meaning there's less in your blood.

**When to take them:** Tablets taken once a day, with or without food. Your urine will test positive for sugar because of the way they work.

## Need to know

**It's important to understand your medication and take it as prescribed. Understanding these things will help you:**

- **The name.** Most medicines have two names. One is the generic name and is the actual name of the medication. The other name is the brand (trade) name that it's sold under. Write down and remember the generic name.
- **The dose.** How much you take.
- **Time and frequency.** When and how often you take it. Is it with or without food, before or after food?
- **How it's taken.** Is it a tablet, liquid or injection?

## Some questions

### Do I have to pay for my medication?

Not if you treat your diabetes with tablets, injectable therapies or insulin. But, if you're in England, you'll need to have a medical exemption certificate to claim your free prescription unless you're 60 or over.

You can get an application form (called FP92A) from your GP surgery. Fill it in, then your doctor will sign it and send it off. For more details, go to [www.diabetes.org.uk/t2-prescriptions](http://www.diabetes.org.uk/t2-prescriptions)

## Rohit's story

"When I was first diagnosed I was asked to change my diet and activities. We cut down on sugar and all sugary foods. But after about three years, I was put on metformin and drugs to control my cholesterol and blood pressure. Over the years, my metformin dose has increased.

I'd enjoyed talking to people at a diabetic awareness stall, and it dawned on me that I had to practise what I preached. So, I changed my eating lifestyle and significantly increased my activities. At the same time, my HbA1c – which gives average blood sugar levels over three months – readings were over 63mmol/mol. Doctors warned me that if I wasn't able to bring them down then my medication would have to change.

Now, I rely on exercise at home in the morning, which involves 45 minutes on a cross trainer. I built up slowly. I distract myself by watching a box set series on my tablet. I now also walk everywhere possible, walk up the escalators, and avoid lifts. I've got my HbA1c down to 47.5mmol/mol and I'm working to get it down to 42mmol/mol."



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# Medication

## Insulin

**Insulin is a hormone made in the pancreas. It helps us move sugar (glucose) from our blood into our cells where it's used for energy.**

Insulin injections are available as a treatment for Type 2 diabetes.

If you do need to take it, it'll be because the medicines you're taking aren't working as well as they were to manage your diabetes. Or, you may only need it for a short time for a particular reason – like during pregnancy, a severe illness, or if you've had surgery – and it could be stopped afterwards.

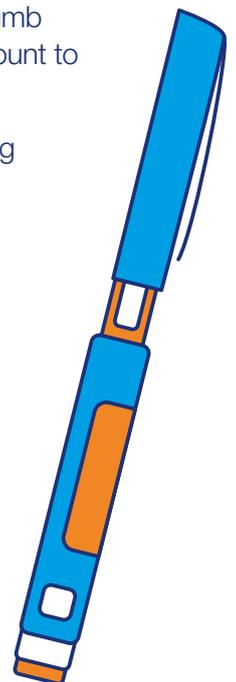


## How it's taken

You'll need to inject insulin with an insulin pen. Your healthcare team will show you how. The places to inject are usually the thigh, bottom, stomach and upper arm. Basically, where there's plenty of fatty tissue.

These are the steps you'll be shown:

- Decide where you're going to inject.
- Make sure your hands and the place that you're injecting are clean.
- Squirt out two units of insulin into the air. This makes sure the top of the needle is filled with insulin.
- If the nurse has told you to do this, lift a fold of skin – but not so tightly that it causes your skin to whiten or go pale, or is painful – then insert the needle at a 90 degree angle. You shouldn't need to pinch up, unless you're very thin – check this with the nurse beforehand.
- Put the needle in quickly.
- Inject the insulin. Make sure the thumb button is fully pressed down and count to 10 before removing it.
- Let go of the skin fold if you're doing this method and dispose of the needle safely.
- Always use a new needle. Reusing a needle makes it blunt and painful to inject with.





## Need to know

- It shouldn't hurt too much to inject and as you get better at it, and less worried about it, it will hurt even less. With confidence, it'll become second nature.
- Always dispose of needles in a special sharps disposal bin, not a rubbish bin. It's also where you need to put used lancets – the device used for a blood sugar test.
- Sharps disposal bins and needle clippers are free on prescription. Talk to your clinic about how to dispose of the boxes when they're full.

## Some questions

### Does this mean I now have Type 1 diabetes?

No, it doesn't. You still have Type 2 diabetes but you've changed treatment.

### Is it my fault I now need insulin?

No, it's not your fault. It can be hard to manage your diabetes and insulin is just another way to help do this. Everyone's different and you shouldn't feel bad about having to take insulin.

If you're feeling worried about having to take insulin or anything to do with your treatment, then you need to talk about it. Talk to your nurse or healthcare team, or contact our helpline: call **0345 123 2399** or email [helpline@diabetes.org.uk](mailto:helpline@diabetes.org.uk).

If you're in Scotland, call **0141 212 8710** or email [helpline.scotland@diabetes.org.uk](mailto:helpline.scotland@diabetes.org.uk)

## Tips for injecting

- 1 Change the place you inject. Don't go to the same place – rotate where you inject. This stops the build-up of small lumps under the skin. These lumps don't look or feel very nice and they make it difficult for your body to absorb the insulin properly.
- 2 If you're finding it difficult or painful to inject, speak to your nurse who'll be able to help.

# Hypos and hypers

## Hypos

**A hypo or hypoglycaemia is when your blood sugar level is too low – that's below 4mmol/l.**

Not all people with Type 2 diabetes will have hypos, but you're more likely to have a hypo if you take insulin, sulphonylureas or prandial glucose regulators – see page 13. If you take any of these, it's especially important to know the symptoms of a hypo.

### Hypo signs

They can come on quickly. Everyone has different symptoms but the most common ones are:

- trembling and feeling shaky
- sweating
- being anxious or irritable
- being pale
- palpitations and a fast pulse
- lips feeling tingly
- blurred sight
- being hungry
- feeling tearful
- tiredness
- having a headache
- lack of concentration
- confusion.

### Why they happen

You can't always know why you've had a hypo, but these things make them more likely:

- taking more insulin – or certain diabetes medication – than you needed
- too much diabetes medicine for the amount of carbs eaten – see page 42
- not having enough carbs at your last meal
- missing or delaying a meal or snack
- exercising more than normal – or if you didn't plan to exercise
- drinking alcohol on an empty stomach.

### Treating a hypo

You need to act quickly as soon as you notice symptoms, or if a blood sugar test has shown your levels are too low.

If you don't, it could become worse.

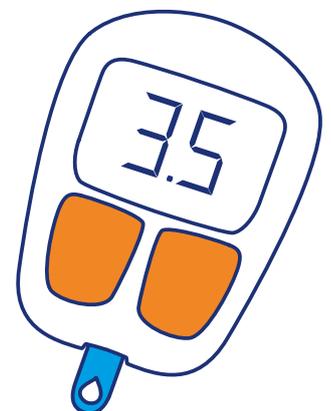
If you can, treat the hypo immediately by eating or drinking 15 to 20g of fast-acting carbs.

This could be:

- three glucose or dextrose tablets
- five jelly babies
- a small glass of a sugary (non-diet) drink
- a small carton of pure fruit juice
- two tubes of a glucose gel such as GlucoGel®.

To find out how much you need to take, check the food label to see how many carbs it contains. Also, soft drink manufacturers are now charged for producing soft drinks that are high in added sugar. This may affect the amount of carbs in the products you use. If you're not sure how much to take, speak to your healthcare team.

After a hypo, you may need to eat or drink a bit more to stop your sugar levels going down again. Try to eat 15 to 20g of a slower-acting carb. This could be a sandwich, a piece of fruit, cereal or milk. Or it could be your next meal if that's due.



## Treatment choice

Which hypo treatment you choose is up to you. The type and amount depends on what works best for you. It might depend on your taste, or how easy it is to store or carry around. You can get things like glucose gel, glucose tablets and dextrose tablets on prescription. Talk to your diabetes team about how much to take and which treatment to choose.

## If you become unconscious

It's pretty rare for Type 2 diabetes, but severe hypos do happen and could mean you fall unconscious.

**It's important that your family and friends know what to do. They shouldn't try to give you any food or drink because you won't be able to swallow. They will need to help you very quickly. They need to:**

- Put you into the recovery position – on your side, with your head tilted back and knees bent.
- Give you a glucagon injection – if there is one and someone knows how to use it.
- Call an ambulance – if you don't have a glucagon injection or if you haven't recovered 10 minutes after the injection.

You shouldn't be having a lot of hypos and they shouldn't be severe. If they are, get in touch with your healthcare team.

It can be a good idea to record your hypos, to see if there are any trends or patterns. Knowing this may help your healthcare team find the best diabetes treatment for you.

## Tips for preventing a hypo

- 1 Don't miss a meal.
- 2 Eat enough carbs.
- 3 Eat more carbs if you're more active than normal.
- 4 Take your medicine correctly.
- 5 Don't drink alcohol on an empty stomach or drink too much alcohol.

## Need to know

- Keep hypo treatments with you at all times.
- Check the carb content of your hypo treatment regularly, as ingredients in a product can change. In some cases, it might not be suitable anymore or you may need more to treat a hypo.
- If you have night-time hypos, check your blood sugar levels before bed and during the night. Speak to your healthcare team about the best times.
- It's a good idea to carry some diabetes ID, like an identity card, bracelet or necklace.
- If you have a hypo, don't go for foods that are high in fat like chocolate or biscuits. The fat slows down how quickly the sugar is absorbed and they don't work quickly enough.

## Some questions

### Should I keep my blood sugar high to avoid hypos?

No, it's bad for you to live with high blood sugar levels. You could feel thirsty, go to the toilet often and feel tired. And, in the long term, it's much worse. It could cause complications like blindness, heart attack, stroke, kidney disease and lower limb amputations.

### How will a hypo affect my blood sugar levels?

After a hypo, your blood sugar may go up. This could be because the hypo made you feel hungry and you ate a lot. It could also be because the hypo caused your body to release stored sugar (glucose) to try and correct the blood sugar levels. If you're on insulin, don't be tempted to increase the dose.

## Hypers

A hyper or hyperglycaemia is when your blood sugar is too high. That's usually above 7mmol/l before a meal or above 8.5mmol/l two hours after a meal.

### Hyper signs

- weeing more than usual, especially at night
- being very thirsty
- headache
- tiredness.

### Treating a hyper

If your blood sugar level is high for a short time, you don't need emergency treatment. But if it stays high, you need to:

- drink lots of sugar-free fluid
- have extra insulin – if you take it
- seek medical advice straight away if you feel ill – particularly if you're being sick.

If you often have hypers, speak to your healthcare team about your medications or lifestyle.

### Tips for preventing a hyper

- 1 Know your carb portions and how they affect your blood sugar levels.
- 2 If you're ill, keep taking your diabetes medication even if you're not eating. Contact your healthcare team if you need more information.
- 3 Be as active as possible.
- 4 Remember your medication and always take it correctly.
- 5 You may need more medication, so talk to your healthcare team.

## Need to know

- The symptoms you experience when you have a hyper may be similar to when you were first diagnosed with Type 2 diabetes (see page 5). It's important to be aware of these symptoms and know when you're having a hyper.
- If you have hypers regularly, speak to your diabetes healthcare team as you may need to make changes to your medication or your lifestyle.
- The odd high blood sugar level every now and again isn't anything to worry about, especially if it comes back down again. But, if your blood sugar levels are high for a while, this can be serious, so seek medical help.
- If your blood sugar levels are very high, like when you're ill, it can be very dangerous and can lead to something called hyperosmolar hyperglycaemic state (HHS). You can become severely dehydrated and will need hospital treatment. See page 60 for more on illness.

## Some questions

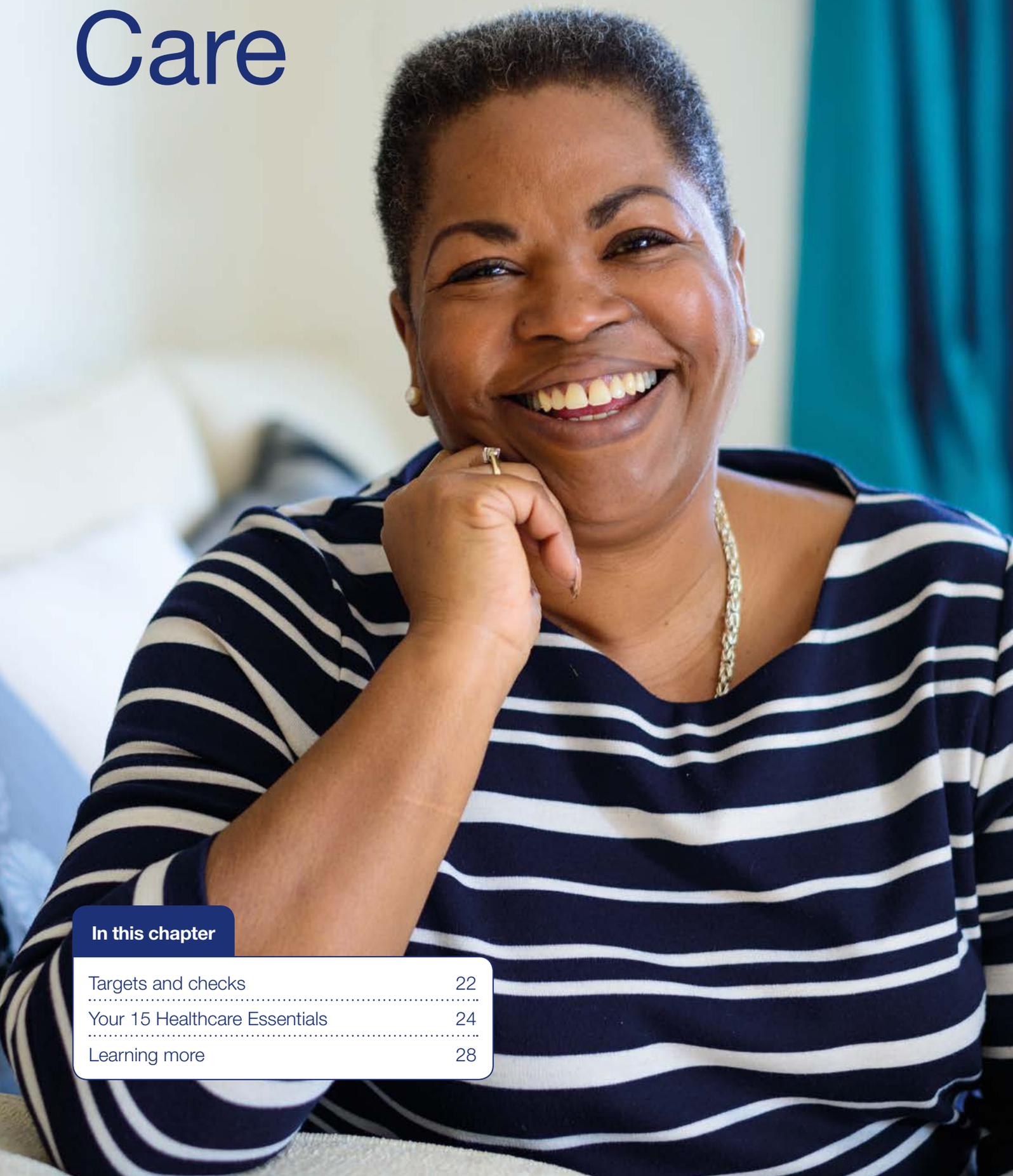
### Why do I get hypers?

There are lots of reasons. It may be that you:

- have missed a dose of your medication
- have eaten more carbs than your body or medication can cope with
- are stressed
- are unwell from an infection
- overtreated a hypo.



# Care



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# Targets and checks

**At least once a year, you should have a full review of your diabetes with your healthcare team. It's called the annual diabetes review. It's a bit like an MOT of your diabetes, so it's important you attend all of your checks.**

Even though you'll be looking after your Type 2 diabetes every day, there are certain things your healthcare team will need to check. This is to make sure you're in good health. Checks include your blood sugar levels, cholesterol levels, blood pressure, your weight, your feet, your eyes and how well your kidneys are working.

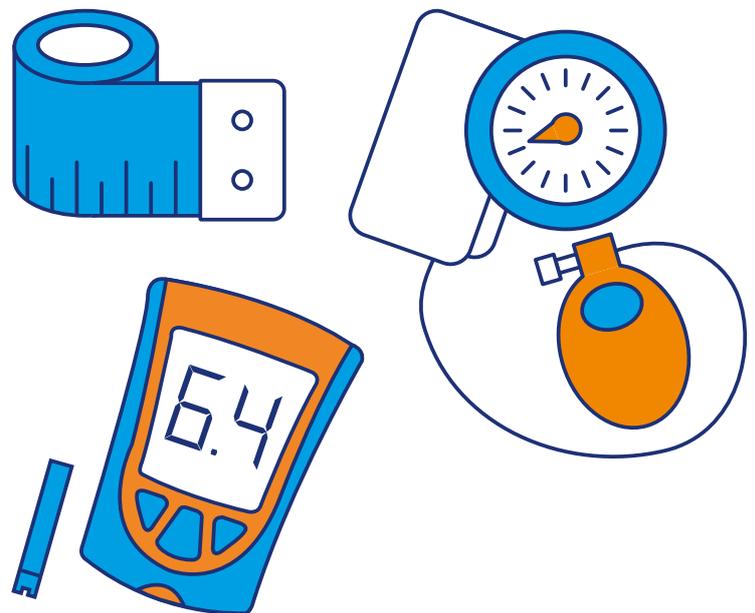
Some of these checks will have targets to aim for. These are:

- **Blood sugar levels.** HbA1c is what we call the long-term measure of blood sugar. It should usually be below 48mmol/mol. Some people may be asked to aim for below 53mmol/mol. The target you're given depends on how your diabetes is treated.
- **Body Mass Index (BMI).** If your BMI figure is higher than 25kg/m<sup>2</sup> – or higher than 23kg/m<sup>2</sup> if you're from a South Asian background – you may be told that losing weight will help you to manage your diabetes. Your healthcare team will work out your BMI and set a target for you. See page 32 for more on weight and BMI.
- **Waist measurement.** It should be less than:
  - 80cm (31.5in) for women
  - 90cm (35in) for South Asian men
  - 94cm (37in) for other men.
- **Blood pressure.** It should be under 140/80mmHg. If you have problems with your eyes, kidneys or have had a stroke, it should be below 130/80mmHg.

- **Cholesterol.** There are two main types – HDL (good cholesterol) and LDL (bad cholesterol). If the levels of your bad cholesterol become too high and the good cholesterol too low you are at increased risk of developing cardiovascular complications. There are also triglycerides, which can have bad effects on your health if levels are high, too.
  - Your total cholesterol level should be below 4mmol/l.
  - HDL levels should be 1mmol/l or above in men and 1.2mmol/l or above in women.
  - Triglyceride levels should be 1.7mmol/l or less.

## Tips for your checks

Keep a copy of your own targets and results. You can then track how you're doing and know where you may need help.



## Some questions

### What if I don't meet my targets?

Don't worry if you don't reach your targets straight away – it can take time. Even if your results have improved from last time, then that's great. The good news is, once you know what your results are, you and your healthcare team can do something about it. They can help you make changes to your lifestyle to and adjust your medication to come closer to meeting your targets.

## Need to know

- The general targets are a helpful guide, but the most important ones are your own personal targets that you agree on with your diabetes healthcare team.



## Meet Shivali

**Shivali, 37, put her Type 2 diabetes into remission in 2018**

“Growing up I did very little physical activity. Cooking and eating were the highlight of my day.

At school and college, I was always the fat girl. But I was also the fun girl and life was great. I didn't feel any need to lose weight.

As an adult, I started to get into running at the suggestion of my aunt, Yogini, who often participated in 5 and 10km events for Diabetes UK. I got my weight down to 11 stone and my blood sugar control was good. Then, in 2017, I broke my toe and couldn't run. I got to 12 stone and needed to start taking insulin again.

In early 2018 I joined a weight-loss programme. I'd heard people with diabetes saying their sugars had got better or they'd gone into remission, but I was convinced diabetes was not that easy to manage or beat. I thought it might work for someone who'd just been diagnosed, but not for someone like me, who'd had diabetes for 10 years.

I adopted the basic rule of having half a plate of salad, a quarter plate of protein and a quarter plate of complex carbs at every meal. By eating the right foods and losing weight, I have put my diabetes into remission.

Putting my diabetes in remission required a massive lifestyle and mindset change. I had to remind myself that I mattered, that my health mattered, that my body mattered.

My advice to someone else who has just been diagnosed is if you have Type 2 diabetes, if it's in your family, take caution, take care and be proactive about it. If you have lifestyle-related diabetes, you can do something about it.”

# Your 15 Healthcare Essentials

**When you have diabetes, you're entitled to certain checks, tests and services every year to help you get the care you need. You might know this as your annual review.** There are 15 different checks and services you're entitled to – we've called this your 15 Healthcare Essentials. Having all these essential diabetes checks helps you reduce your risk of serious diabetes complications.

- 1 Know your blood sugar levels.** You need a healthcare professional to check your average blood glucose levels at least once a year. It's called a HbA1c blood test.
- 2 Know your blood pressure.** Your doctor or nurse must measure your blood pressure at least once a year. They'll agree a personal target for you.
- 3 Know your cholesterol (blood fats).** Your healthcare team will check your cholesterol at least once a year. They'll tell you what the results mean and if you need to take action to bring it down.
- 4 Look after your eyes.** You'll be invited to an eye screening appointment every year. This checks for signs of retinopathy (damage to the eye). A special digital camera takes a photograph of your retina – at the back of your eye – and a specialist looks for any changes. It's a free test, which you'll be invited to. It's not the same as a regular eye test. If you notice any changes in your sight at any time in the year you must contact your doctor or optometrist.
- 5 Check your feet and legs.** The skin, circulation and nerve supply of your legs and feet need to be examined at least once a year by your healthcare team. That's because people with diabetes are at higher risk of developing problems that can lead to toe, feet or leg amputations. The good news is that these can be avoided by getting your check and following some simple tips for healthy feet on page 72. You should be told if you have any risk of foot problems and if you need to see a podiatrist or specialist foot clinic. You should also check your feet every day. Keep your heels well moisturised and check your toenails. If you see anything unusual, go straight to your doctor.
- 6 Keep your kidneys healthy.** There are two tests for kidney function you need each year. One tests your urine for protein – a sign of possible kidney problems. The second is a blood test to measure how well your kidneys are working. Kidney disease is more common in people with diabetes and high blood pressure.
- 7 Take control of your diet.** Having less salt and less fatty food in your diet will help you keep your cholesterol and blood pressure levels in check. And as you now know, this helps reduce your risk of diabetes complications. Because you have diabetes, you're entitled to dietary advice from a dietitian.
- 8 Talk about how you're feeling.** It can be hard living with diabetes and you're bound to worry about it sometimes. Talk to your healthcare team about any worries and, if needed, ask for specialist support.
- 9 Go to a group education course.** A group education course is how you can learn everything you need to know about diabetes. It also gives you a chance to meet up with other people with diabetes. You should be offered a diabetes education course in your area when you're first diagnosed – or a yearly refresher course later on.
- 10 Know your diabetes specialists.** Diabetes affects different parts of the body and you should be referred to specialist professionals when needed, like a diabetes specialist nurse, dietitian, pharmacist or podiatrist.

- 11 Book your free flu jab.** People with diabetes are at greater risk of severe illness, like pneumonia, if they get the flu. You should also be given a personal care plan telling you what steps to take if you are ill.
- 12 Get good care in hospital.** If you have to stay in hospital, you're entitled to high-quality care from specialist healthcare professionals. That's whether you're in there because of your diabetes or not.
- 13 Talk about any sexual problems.** Diabetes increases the risk of sexual dysfunction in both men and women. It can be caused by physical, emotional and lifestyle factors, or medication you might be taking. You might find some of these things difficult to talk about. But your healthcare team is there to give you the support, advice or treatment you need.
- 14 Stop smoking.** Diabetes increases your risk of heart disease and stroke, and smoking increases this risk even more.
- 15 Plan ahead if you want a baby.** Your diabetes management has to be a lot tighter when you're planning to have a baby because there are a lot more risks involved. You should expect support from specialist healthcare professionals at every stage from preconception to postnatal care.

## Need to know

- Use this list of 15 Healthcare Essentials to check that you're getting the right care during the year, every year.
- Write down your test results so you can see how things change over time. This will help you look after yourself between appointments.
- Download the 15 Healthcare Essentials at [www.diabetes.org.uk/t2-15-essentials](http://www.diabetes.org.uk/t2-15-essentials)
- You can learn to manage your condition with confidence using our free online education service, Learning Zone. Visit [www.diabetes.org.uk/t2-learning](http://www.diabetes.org.uk/t2-learning)

## Some questions

### I'm not getting all the right checks. What can I do?

Speak to your doctor or someone in your healthcare team. Take along this guide and the 15 Healthcare Essentials checklist. If you need to make a complaint, go to [www.diabetes.org.uk/t2-15-essentials](http://www.diabetes.org.uk/t2-15-essentials)

### Tips for getting the most out of your appointments

#### Before an appointment:

- 1** Decide what you need to know. Write down some points and two or three questions.
- 2** Take things you think will be useful, like your blood sugar results or a list of your medications.
- 3** Ask if you'll need any tests before going to the appointment.
- 4** Ask if you need to bring anything with you, like a urine sample.

#### During an appointment:

- 1** Listen and ask questions. Don't be shy to ask questions about anything you don't understand, or if you need more clarification.
- 2** Take notes to help you remember what's been said.
- 3** Ask for your test results and what they mean.
- 4** You can take someone with you to help with questions and remembering what's said.
- 5** Check that everything you wanted to talk about has been covered.
- 6** Make a plan with your healthcare professional about what should happen next.
- 7** Ask who you should contact if you have more questions.
- 8** Ask if there's any support available in your local area.

#### After the appointment:

- 1** Go over what was said. Make a note of anything you need to do before your next appointment.
- 2** Put your next appointment in your diary.

## Your healthcare team



Team member	What do they do?	Name and contact details	When do I see them?
<b>GP</b>	This is the doctor in charge of your care and treatment. If they have a special interest in diabetes or are an expert, they may play a bigger role in your care. Otherwise, they'll refer you to a diabetes clinic.		
<b>Practice nurse</b>	A nurse from your GP surgery who may support your diabetes care. This depends on their specialist knowledge.		
<b>Diabetes specialist nurse (DSN)</b>	A nurse with specialist knowledge of diabetes who only works with people who have diabetes. They usually give support and advice between appointments with things like blood sugar checking and adjusting your medication.		
<b>Registered dietitian</b>	An expert in food and nutrition. They give you information and support to help you make changes to your eating habits. You should always see a registered dietitian when you're first diagnosed. You should then have regular reviews with them.		
<b>Registered podiatrist</b>	An expert in feet and legs. You may need to see them to check and manage any problems with legs and feet related to diabetes.		
<b>Ophthalmologist</b>	A doctor specialising in eyes. They can do your retinal screening review and give treatments, if you need them.		
<b>Pharmacist</b>	A qualified pharmacist at your pharmacy or chemist. As well as giving you medicines and supplies on prescription, they can review your medication.		
<b>Psychologist</b>	An expert who can help you if you're worried about your diabetes. If these worries are affecting your life, they provide emotional support.		

### Tips for contacts

Agree with your GP who'll be your main contact. This is usually the person you see most often and may be the GP or practice nurse.

### Some questions

#### How will I find out who are the members of my team?

First off, it's best to ask at your GP surgery. Don't be shy of asking them to wait while you take a note of names and details. They're likely to be different healthcare professionals – you may not see them all at the same time and place.

# DOLORisk

Understanding risk factors and determinants  
for neuropathic pain

**Do you have diabetes?**

**Do you also have numbness, tingling or pain in  
your feet or hands?**

If so, you may be eligible to participate in a research study. The Pain Research Group, Imperial College London are currently investigating mechanisms causing nerve related changes in sensation. We are currently recruiting people that may be at risk of developing peripheral neuropathy, such as those with diabetes.

Participation involves a single appointment, lasting around 3 hours at Chelsea and Westminster Hospital. During this appointment, you undergo a neurological examination, have to complete some questionnaires, undergo a computer-based cognitive function test and endure various tests of your nerve function. We will also take a blood sample and a small skin sample to learn more about associations between pain, the integrity of your nerve fibres and genetic characteristics.

Travel expenses will be reimbursed.

For further details please contact Dr Helen Laycock :

 07566950809  [h.laycock@nhs.net](mailto:h.laycock@nhs.net)

# Learning more

## Knowing about diabetes is crucial to managing your diabetes.

Yes, Type 2 diabetes is now part of your life, but it doesn't have to rule your life. Whether you've just been diagnosed, or have had it for a while, it's never too late to receive the support and information you need to manage your diabetes well. If you do, it's much easier to live with, and you can reduce your risk of developing complications further down the line.

First off, make sure you're getting the right care by checking it against our 15 Healthcare Essentials checklist on page 24.

Next, take a free diabetes group education course.

It can feel that there's a lot to learn about Type 2 diabetes. People who go on these courses feel more confident in their understanding of diabetes and how to look after themselves.

Everyone in the UK with diabetes should be offered a free course by their doctor, nurse or consultant. If you haven't been offered one, make sure you ask for a referral.

The main courses for Type 2 diabetes are DESMOND and X-PERT. They help you understand how to manage your diabetes and make healthier food choices.

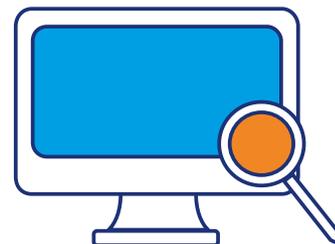
**If you prefer to learn on your own and in your own time, you could sign up to Learning Zone, our free and interactive online education platform. It's a new way to learn about your diabetes, combining our clinical knowledge with the experiences of people living with Type 2 diabetes. Sign up at [www.diabetes.org.uk/t2-learning](http://www.diabetes.org.uk/t2-learning)**

## Tips for making the most out of a course

- 1 You'll probably need to take time off work to attend a course – but it's worth it, especially if it helps you to look after your diabetes and health better. If you're struggling to get time off, explain the benefits to your employer. The course provider or your healthcare team may be able to send you materials or a letter for you to give to your employer. For more advice, go to [www.diabetes.org.uk/t2-employment](http://www.diabetes.org.uk/t2-employment)
- 2 Courses are informal and friendly – so don't be afraid to ask questions.
- 3 Take the opportunity to mingle and share experiences with others on the course.

## Need to know

There are also some good locally based courses that you can find out about from your own healthcare team.



## Some questions

### Can't I just go online for information?

There is a lot of useful information online, but you need to be careful. Some websites aren't always accurate. To avoid any out-of-date or wrong information, you should follow this advice:

- Speak to your healthcare team about anything you see, hear or read that interests you or you're not sure about. If you can, take a copy of it with you.
- Ask your healthcare team to recommend online sites or information.
- Don't trust sites that say there's a cure for diabetes. There is currently no cure.
- Don't try medical products or specialist foods you find online without checking with your healthcare team first.

- Check links on the site are working.
- Find out about the author or where the information has come from. If something sounds unbelievable, it probably is.
- Online forums are a useful way to share knowledge, but check with your healthcare team before you change your treatment.

#### These sites have reliable information:

- [www.diabetes.org.uk](http://www.diabetes.org.uk)
- [www.diabetes.org.uk/t2-forum](http://www.diabetes.org.uk/t2-forum)
- [www.nhs.uk](http://www.nhs.uk)
- [www.nice.org.uk](http://www.nice.org.uk)

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However you want to raise money for Diabetes UK we have the ideal event for you.

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[www.diabetes.org.uk/fundraising-events](http://www.diabetes.org.uk/fundraising-events)



**DIABETES UK**  
KNOW DIABETES. FIGHT DIABETES.



## Meet Joni

### **Joni encourages everyone to go on a diabetes education course**

“When I was diagnosed 20 years ago, diabetes courses weren’t available. Now they are, and I thought to go along and be with others who lived with the same condition was going to be very useful. I was excited.

There were about 14 people in our group. There was a chance to talk among ourselves, to be able to share our stories from when we first became diabetic, what we wanted out of the course, and how we hoped it would be helpful. But it was very informal and that made it very relaxing.

It was interactive and drew people in. But if you didn’t feel like talking you didn’t have to.

We learned how Type 2 diabetes happens, about the medicines, how they work and when best to take them. The course taught you helpful things like managing and monitoring your diabetes, and the best time to test your bloods.

### **Making a difference**

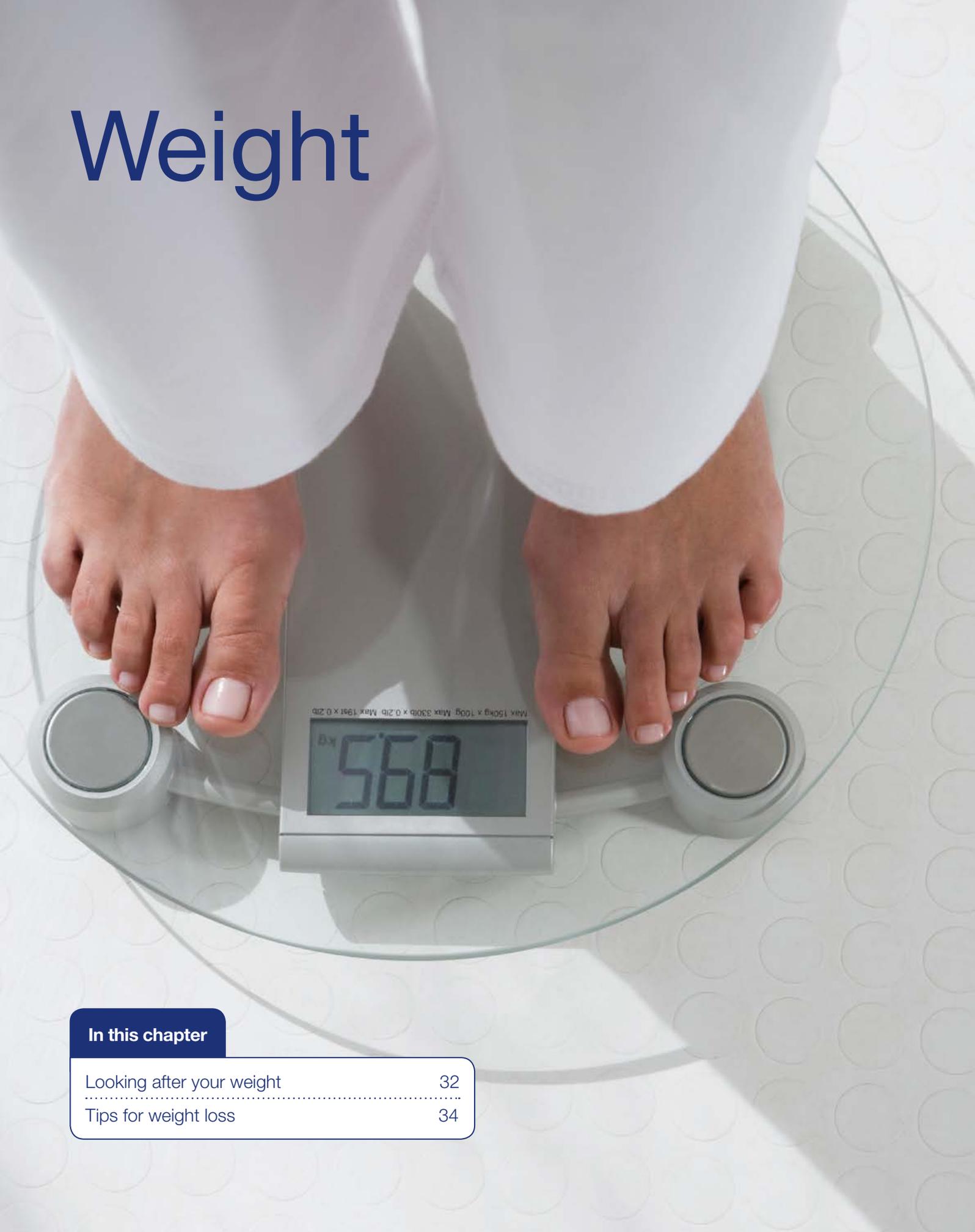
It put aside some misconceptions; for example, it’s not just about eating sweets, because I wasn’t really a sweetie eater. It was more about looking at my diet and recognising there were things like potatoes and rice that would increase your blood sugar because of the way your body broke it down. The other thing that it helped me to do was to realise that I’m the main

instrument here and what I do makes the difference between living well and not. But you also learn that doing one small thing, no matter how small you might think it is, is big because you’re doing it. That was huge for me.

It’s helped my overall wellbeing. Before, there were times when I felt I wasn’t up to doing something as I was extra tired and I’d feel a bit low. I came to understand that it doesn’t just affect you physically – it can affect you emotionally.

It has given me more confidence; it has helped me lose quite a bit of weight, so my diabetes is very well under control and my drugs were reduced slightly. It’s been a godsend.”

# Weight

A top-down view of a person's feet standing on a white digital scale. The scale's LCD display shows the number '89.5' with a 'kg' unit indicator. Above the display, technical specifications are printed: 'Max 150kg x 100g Max 330lb x 0.2lb Max 194t x 0.2lb'. The person is wearing white pants. The scale is on a light-colored floor with a circular pattern.

Max 150kg x 100g Max 330lb x 0.2lb Max 194t x 0.2lb  
kg  
89.5

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# Looking after your weight

## **80% of people with Type 2 diabetes are overweight.**

That's not a cheery thing to hear, but bear in mind it's part of a trend affecting the whole of society. As a population, we're less active than we should be. We're eating too much. Plus, with each year, we gain more weight, which becomes harder to lose.

Carrying extra weight is particularly bad for you if you have Type 2 diabetes.

### **Why it matters**

There's a lot of evidence that losing weight if you're overweight improves blood pressure, cholesterol, blood sugar levels and reduces your risk of developing serious problems with your eyes, feet and heart.

Most people find they feel better, look better and have more confidence. And it tends to mean you're more mobile for longer.

### **Why it matters more with Type 2 diabetes**

Losing excess weight is one of the most effective ways to manage Type 2 diabetes.

It improves blood sugar levels, blood pressure and the levels of fats (cholesterol) in your blood.

Also, carrying extra weight, especially around your middle, can lead to your body being more resistant to the insulin you make, so it works less well. So, losing weight will help to improve this.

What's more, if you have Type 2 diabetes, losing around 15kg could even put you into diabetes remission. This could mean coming off your diabetes medication completely – a life-changing possibility. This is even more likely if you lose the weight nearer to your diagnosis and quickly.

To find out more about remission, go to [www.diabetes.org.uk/t2-remission](http://www.diabetes.org.uk/t2-remission)

## **How to know if you need to lose weight**

### **Measure your waist**

Carrying fat around your stomach can make it harder for your body to manage the levels of sugar in your blood, which is bad for Type 2 diabetes.

With a tape measure, measure around your middle, midway between the top of your hips and bottom of your ribcage.

Guideline measurements are:

- white and black men: below 94cm (37in)
- South Asian men: below 90cm (35in)
- all women: below 80cm (31.5in).

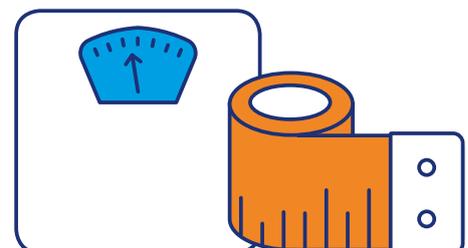
It's different for men of South Asian background as they have a higher risk of Type 2 diabetes.

### **Find out your BMI (Body Mass Index)**

This is a measure of your weight in relation to your height.

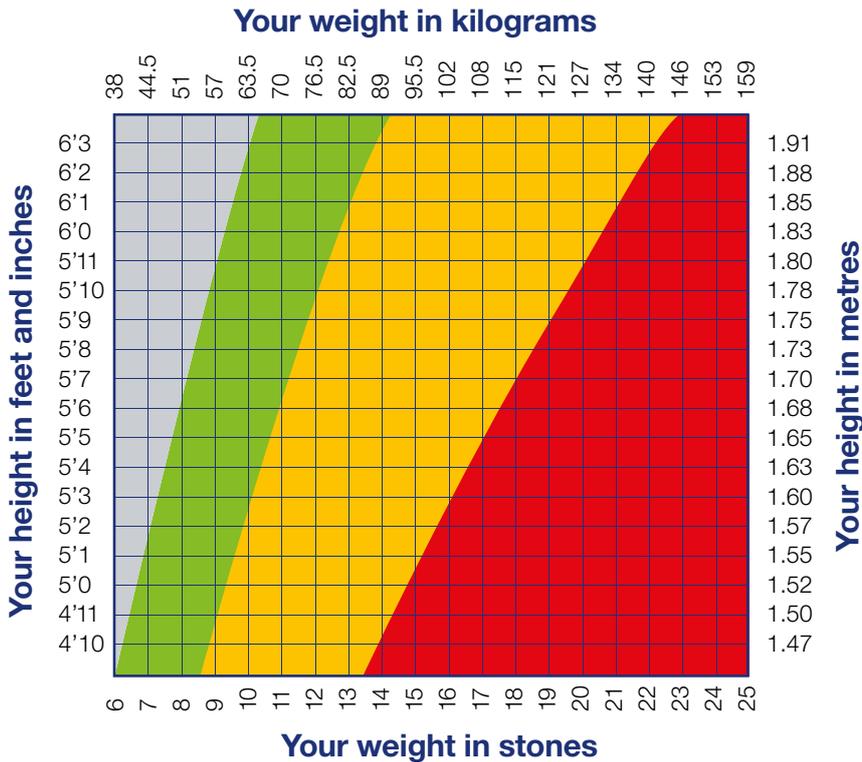
Using the chart on page 33, find the point where your height and weight meet. You can then see what range you're in.

It's a good idea to discuss your BMI with your healthcare team and set targets.



**Use this chart to see if your BMI is within the healthy range or green area. A healthy BMI is between 18.5 and 24.9. For South Asian adults, a healthy BMI is between 18.5 and 22.9.**

For example, if you are 5'8 (1.73m) tall and weigh 10st (63.5kg) then you are within the healthy range. Aim to stay in the green area or work towards getting closer to the green area.



**To calculate your BMI:**

$$\frac{\text{weight (kg)}}{\text{height (m)} \times \text{height (m)}}$$

Example: So, if you're 1.8m tall and 95kg, your BMI would be 29:

$$\frac{95}{(1.8 \times 1.8)} = 29 \text{ (BMI)}$$

Weight

## Losing weight

In short, the best way to lose weight is by eating less and being more active. You need to find something that fits with your life and a way of eating you can stick to. Some days will be better than others. There'll be ups and downs. Maybe you don't manage to reach your target weight, but if it's going in the right direction, then that's great. You'll be making a difference to your diabetes and how well you feel.

There's information on our website about the different ways to lose weight, including:

- **A low-fat, healthy, balanced diet** – eating a varied diet and choosing different foods from each of the main food groups.
- **A low-carbohydrate diet** – there are several versions of a low-carb diet, but the main principle is to limit the amount of carbs you eat to below 130g a day.

- **A very low-calorie diet** – made up of below 800 calories a day.
- **The Mediterranean diet** – largely based on plant foods, including a lot of vegetables, beans and pulses, nuts and seeds, wholegrain bread, pasta and olive oil.
- **The low glycaemic index (GI) diet** – based on eating low-GI foods to help manage blood sugar levels.
- **Commercial weight-loss programmes** – usually involve calorie-controlled eating plans or meal replacements.

Speak to your healthcare team about what's best for you. Go to [www.diabetes.org.uk/t2-healthy-weight](http://www.diabetes.org.uk/t2-healthy-weight) to find out much more about these.

## Keeping on track

It can help you keep on track if you think about the questions why, what and how.

### Why?

Maybe it's a few pounds to help manage your diabetes. Maybe you need to lose more so that you feel better and more confident. Know why it matters to you.

### What?

A specific target weight can help you to measure your progress, which is a great boost. Often, people prefer smaller targets so they can tick them off more easily.

### How?

Have a plan in place. Speak to your healthcare team about seeing a dietitian. Do your homework and put together an eating programme that suits you. Get physical – the more active you are, the more energy you use and the easier it'll be to lose weight. See page 48 and [www.diabetes.org.uk/t2-exercise](http://www.diabetes.org.uk/t2-exercise) for more information.

## Tips for weight loss

- 1 Set clear goals and monitor your progress.
- 2 Choose the diet that fits your lifestyle – you're more likely to stick to it.
- 3 Get support from your healthcare team, and talk to family and friends about how it's going and how you're feeling.
- 4 Plan ahead and think about how special events and holidays fit into your long-term weight loss plans.
- 5 Reward yourself for achieving short-term goals, and get support to cope with setbacks.

## Weight-loss planner

Our weight-loss planner helps you to set weight-loss goals and track your progress. By putting a plan in place and noting down your progress, you'll be able to see the positive changes you're making. This can help you to stay motivated, lose weight and achieve your goals. To download our planner, go to [www.diabetes.org.uk/t2-lose-weight](http://www.diabetes.org.uk/t2-lose-weight)

## Need to know

- A diabetes education course can help you understand how to manage your weight and diabetes (see page 28).
- Ask to see a dietitian if you need help.
- Be active.
- Calculate your BMI and measure your waist.
- Set a realistic target for your weight and how you can achieve it.
- Decide on a weight-loss plan and work out how long it will take.

## Some questions

### I need more support to help lose weight and get more active. What can I do?

It's important to get the right support. Your GP, practice nurse or dietitian can help. And, if you take medication, as you eat less, become more active and lose weight, it may need to be reduced. Talk to your doctor or nurse if you need to know how to do this.

Remember, you should have help from a registered dietitian.

### I've heard I can get weight loss surgery for my Type 2 diabetes?

Having weight loss or bariatric surgery (usually where your stomach is bypassed or the size is reduced) if you're obese and have Type 2, can help reduce weight and improve your diabetes.

Evidence shows that surgery is a very effective treatment for some people with Type 2 diabetes. It's not a permanent cure, but can help some people to reduce or stop taking diabetes medications, or in some cases, put their diabetes into remission.

It's not for everyone, but speak to your healthcare team about whether surgery is a possibility for you.

# Food



## In this chapter

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# Eating well

**If you have Type 2 diabetes and you're overweight, finding a way to lose weight is important as it really improves diabetes management. This is because it can help to lower your blood sugar and reduce your risk of other complications. There are different ways of doing this like the low-carb, Mediterranean or very low-calorie diets. We know substantial weight loss can even put Type 2 diabetes into remission for some people.**

**Portion sizes are important to think about. It makes managing your weight a lot easier. Remember, portion sizes are different for everyone, so what's right for someone else might not be right for you.**

## Our top 10 tips



**Choose healthier carbs.** All carbs affect blood sugar levels so it's important to know which foods contain carbs. Choose the healthier foods that contain carbs and be aware of your portion sizes.

Here are some healthy sources of carbs:

- whole grains like brown rice, buckwheat and whole oats
- fruit
- vegetables
- pulses such as chickpeas, beans and lentils
- dairy like unsweetened yogurt and milk.

At the same time, it's also important to cut down on foods low in fibre such as white bread, white rice and highly-processed cereals. You can check food labels when you're looking for foods high in fibre if you're unsure.



**Eat less salt.** Eating lots of salt can increase your risk of high blood pressure, which in turn increases risk of heart

diseases and stroke. And when you have diabetes, you're already more at risk of all of these conditions.

Try to limit yourself to a maximum of 6g (one teaspoonful) of salt a day. Lots of pre-packaged foods already contain salt so remember to check food labels and choose those with less salt. Cooking from scratch will help you keep an eye on how much salt you're eating. You can also get creative and swap out salt for different types of herbs and spices to add that extra flavour.



**Eat less red and processed meat.** If you're cutting down on carbs, you might start to have bigger portions of meat to fill you up. But it's not a good idea to do this with red and processed meat, like ham, bacon, sausages, beef and lamb. These all have links with heart problems and cancers.

Try swapping red and processed meat for these:

- pulses such as beans and lentils
- eggs
- fish
- poultry like chicken and turkey
- unsalted nuts.

Beans, peas and lentils are also very high in fibre and don't affect your blood sugar levels too much – making them a great swap for processed and red meat and keeping you feeling full. Most of us know that fish is good for us, but oily fish like salmon and mackerel are even better. These are rich in something called omega-3 oil, which helps protect your heart. Try and aim to eat two portions of oily fish a week.



**Eat more fruit and veg.** We know eating fruit and veg is good for you. It's always a good thing aim to eat more at meal times and have them as snacks if you're hungry. This can help you get the vitamins, minerals and fibre your body needs every day to help keep you healthy.

You might be wondering about fruit and if you should avoid it because it's sugary? The answer is no. Whole fruit is good for everyone and if you have diabetes, it's no different. Fruits do contain sugar, but it's natural sugar. This is different to the free sugars that are in things like chocolate, biscuits and cakes.

Products like fruit juices also count as free sugars, so go for whole fruit instead. This can be fresh, frozen, dried or tinned – in juice, not in syrup. And it's best to eat it throughout the day instead of one bigger portion in one go.



**Choose healthier fats.** We all need fat in our diet because it gives us energy. But different types of fat affect our health in different ways.

Healthier fats are in foods like unsalted nuts, seeds, avocados, oily fish, olive oil, rapeseed oil and sunflower oil. Some saturated fats can increase the amount of cholesterol in your blood, increasing your risk of heart problems. These are mainly found in animal products and prepared food like:

- red and processed meat
- ghee
- butter
- lard
- biscuits, cakes, pies and pastries.

It's still a good idea to cut down on using oils in general, so try to grill, steam or bake foods instead.



**Cut down on free sugar.** We know cutting out sugar can be really hard at the beginning, so small practical swaps are a good starting point when you're trying to cut down on excess sugar. Swapping sugary drinks, energy drinks and fruit juices with water, plain milk, or tea and coffee without sugar can be a good start.

You can always try low or no calorie sweeteners – also known as artificial sweeteners – to help you cut back. Cutting out these free sugars can help you manage your blood sugar levels and help keep your weight down. If your diabetes treatment means you get hypos, and you use sugary drinks to treat them, this is still important for your diabetes management and you shouldn't cut this out. However, if you are having

regular hypos it is really important to discuss this with your diabetes team.



**Be smart with snacks.** If you want a snack, choose yogurts, unsalted nuts, seeds, fruits and vegetables instead of crisps, chips, biscuits and chocolates. But watch your portions still – it'll help you keep an eye on your weight.



**Drink alcohol sensibly.** Alcohol is high in calories, so if you do drink and you're trying to lose weight, think about cutting back. Try to keep to a maximum of 14 units a week. But spread it out to avoid binge drinking, and go several days a week without alcohol. If you take insulin or other diabetes medications, it's also not a good idea to drink on an empty stomach. This is because alcohol can make hypos more likely to happen.



**Don't bother with so-called diabetic food.** To say food is a diabetic food is now against the law. This is because there isn't any evidence that these foods offer you a special benefit over eating healthy. They can also often contain just as much fat and calories as similar products, and can still affect your blood sugar level. These foods can also sometimes have a laxative effect.



**Get your minerals and vitamins from foods.**

There's no evidence that mineral and vitamin supplements help you manage your diabetes. So, unless you've been told to take something by your healthcare team, like folic acid for pregnancy, you don't need to take supplements.

It's better to get your essential nutrients by eating a mixture of different foods. This is because some supplements can affect your medications or make some diabetes complications worse, like kidney disease.

# What is a healthy diet?

**If you think that healthy eating must be complicated and boring, think again. As well as managing diabetes, the foods you choose to eat make a real difference to how well you feel and how much energy you have each day.**

How much you need to eat and drink is based on, among other factors, your age, gender and how active you are. For example, teenagers tend to have a big appetite – this is because they're growing and need more nutrients and calories a day than an adult with a sedentary office job.

Making healthier food choices involves eating a variety of foods from each of the main food groups, which we look at here, as no single food contains all the essential nutrients you need.

## Portion size

Portion sizes have grown in recent years, as the plates and bowls we use have got bigger. Using smaller crockery will make the food on your plate look more substantial and help you cut your portion sizes.



## 1 Fruit and vegetables



Fruit and vegetables are naturally low in calories and packed full of vitamins, minerals and fibre. They also add flavour and variety to every meal.

Fresh, frozen, dried and canned – they all count. Go for a rainbow of colours to get as wide a range of vitamins and minerals as possible. Try to avoid fruit juices and smoothies as they don't have as much fibre.

If you're trying to limit the amount of carbs you eat, you might be tempted to avoid fruit and veg. But it's so important to include them in your diet every day. There are lower carb options you can try.

Fruit and vegetables can help protect against stroke, heart disease, high blood pressure and some cancers – and when you have diabetes, you're more at risk of developing these conditions.

### Benefits

- Help to keep your digestive system working well.

- Help protect the body from heart disease, stroke and some cancers.

### How often?

Everyone should aim to eat at least five portions a day. A portion is roughly what fits in the palm of your hand.

### Try:

- sliced melon or grapefruit topped with unsweetened yogurt, or a handful of berries, or fresh dates, apricots or prunes for breakfast
- mix carrots, peas and green beans into your pasta bake
- add an extra handful of peas to rice, spinach to lamb or onions to chicken
- try mushrooms, cucumber, spinach, cabbage, cauliflower, broccoli, celery and lettuce for lower carb vegetable options
- try avocados, blackberries, raspberries, strawberries, plums, peaches and watermelon for lower carb fruit options.

## 2 Starchy foods



Starchy foods are things like potatoes, rice, pasta, bread, chapattis, naan and plantain. They all contain carbs, which are broken down into glucose and used by our cells as fuel. Some starchy foods can raise blood sugar levels quickly, which can make it harder for you to manage your diabetes. These foods have something called a high glycaemic index (GI), see page 42 for more information.

Low glycaemic index (GI) foods – like wholegrain bread, whole-wheat pasta and basmati, brown or wild rice – affect blood sugar levels more slowly. They also have more fibre, which helps to keep your digestive system working well. So, if you're trying to cut down on carbs, cut down on things like white bread, white pasta and white rice first.

### Benefits

- The fibre helps to keep your digestive system healthy.
- Some affect your blood sugar levels more slowly.
- Wholegrains help protect your heart.

### How often?

Try to have some starchy foods every day.

### Try:

- two slices of multigrain toast with a bit of spread and Marmite or peanut butter
- brown rice, pasta or noodles in risottos, salads or stir-fries
- baked sweet potato with the skin left on – add toppings like cottage cheese or beans
- chapatti made with brown or wholemeal atta
- boiled cassava, flavoured with chilli and lemon.

## 3 Protein foods like beans, nuts, pulses, eggs, meat and fish



Protein foods like beans, nuts, pulses, eggs, meat and fish help keep your muscles healthy. But eating healthily means eating less red and processed meat – they've been linked to cancer and heart disease. Oily fish like mackerel, salmon and sardines have a lot of omega-3 oil, which can help protect the heart.

Pulses, such as beans, peas and lentils are good alternatives to meat as they're lower in fat and higher in fibre.

### Benefits

- Helps keep your muscles healthy.
- Oily fish protects your heart.

### How often?

Aim to have some food from this group every day. You should aim to have 2 portions of oily fish each week. But you don't need to eat meat every day.

### Try:

- a small handful of raw nuts and seeds as a snack or chopped with a green salad
- using beans and pulses in a casserole to replace some – or all – of the meat
- eggs scrambled, poached, dry fried or boiled – the choice is yours
- grilled fish with masala, fish pie, or make your own fishcakes
- chicken grilled, roasted or stir-fried.

## 4 Dairy foods and alternatives

Milk, cheese and yogurt have lots of calcium and protein in – great for your bones, teeth and muscles. But some dairy foods are high in fat, particularly saturated fat, so choose lower-fat alternatives.

Check for added sugar in lower-fat versions of dairy foods, like yogurt. It's better to go for unsweetened yogurt and add some berries if you want it sweeter. If you prefer a dairy alternative like soya milk, choose one that's unsweetened and calcium-fortified.

### Benefits

- Good for bones and teeth.
- Keeps your muscles healthy.

### How often?

We all need some calcium every day.

### Try:

- a glass of milk, flavoured with a little cinnamon or added to porridge
- natural or unsweetened yogurt with fruit or on curry.

## 5 Oils and spreads

We need some fat in our diet but we need less saturated fat. This is because some saturated fats can increase cholesterol in the blood, increasing the risk of heart diseases and stroke. These less healthy options are butter, palm nut oil and coconut oil.

Healthier saturated fats are foods like olive oil, vegetable oil, rapeseed oil, spreads made from these oils, and nut butters.

### Benefits

- Unsaturated fats help protect your heart.

### Try:

- a drizzle of olive oil on your salad
- peanut butter on your wholemeal toast.

## Foods high in fat, salt and sugar



You don't need any of these as part of a healthy diet. The less often, the better. But we know you're bound to eat these foods from time to time, so it's really important to know how they might affect your body.

These foods include biscuits, crisps, chocolates, cakes, ice-cream, butter and sugary drinks. These sugary foods and drinks are high in calories and raise blood sugar levels, so go for diet, light or low-calorie alternatives. And the best drink to choose is water – it's calorie free.

They're also high in unhealthy saturated fats which aren't good for cholesterol levels and your heart.

And they can also be full of salt – processed foods especially. Too much salt can make you more at risk of high blood pressure and stroke. You should have no more than 1tsp (6g) of salt a day.

## Did you know?

Artificial sweeteners approved in the UK have been rigorously tested and are certified as safe. Try using them instead of sugar, especially if you're watching your weight and/or blood sugar levels. Speak to your diabetes healthcare team if you have any questions or concerns.



## Some questions

**I'm worried about my family's eating habits. I want us all to eat healthier now I have Type 2 diabetes. How can I do this?**

It may be hard to change people's views, but there are lots of ideas for healthy eating for the whole family on our website [www.diabetes.org.uk/t2-enjoy-food](http://www.diabetes.org.uk/t2-enjoy-food) Also, see our Eating well information on page 36 for some quick tips.

### Tips for eating well

- 1 If you make gradual changes to your diet that suit your lifestyle, you're more likely to stick to them.
- 2 Remember to ask your GP for an appointment with a dietitian.
- 3 Watch our Food Hacks module on Learning Zone. It explores the connections between food and diabetes and you'll hear advice from real people with diabetes talking about how eating well helped them manage their condition. We will also show you some of our top tips, food swaps and quick guides to portion size. Sign up at [www.diabetes.org.uk/t2-learning](http://www.diabetes.org.uk/t2-learning)

## Need to know

- You have the right to see a dietitian when you have Type 2 diabetes. Ask your GP to refer you.
- How much you should eat from each food group depends on your age, sex, how active you are and what your goals are – this could be better management of blood sugar levels or losing weight.
- As plates and bowls have got bigger over the years, so have portion sizes. Use smaller crockery to make it look like there's more food on your plate.
- No single food has all the nutrients you need. That's why you should have foods from each of the main food groups.

### Healthy swaps

#### Sweet

**Instead of**  
milk chocolate



**try**  
one chocolate  
rice cake.



#### Savoury

**Instead of**  
crisps



**try**  
plain popcorn  
with added spices  
or cinnamon.



#### Drinks

**Instead of**  
fizzy sugary drinks



**try**  
water flavoured  
with mint or  
fresh fruit.



**Instead of**  
ice cream



**try**  
frozen banana or  
low-fat frozen yogurt.



**Instead of**  
bread and dips



**try**  
carrots and celery  
with salsa or low-  
fat hummus.



**For more healthy swaps,  
tasty recipes and loads  
of food tips, go to**  
[www.diabetes.org.uk/  
t2-enjoy-food](http://www.diabetes.org.uk/t2-enjoy-food)

# Carbohydrates

**Carbohydrates (carbs) are an important source of energy and have important nutrients. They're part of a healthy diet.**

All carbs are broken down into sugar. So, the amount and type of carbs you eat or drink makes a difference to your blood sugar levels and to managing your diabetes. There are two main types:

- **Starchy food.** Includes foods like bread, pasta, potatoes, yams, breakfast cereals and couscous.
- **Sugars.** These are either natural or free sugars. Naturally occurring sugars are found in fruits (fructose) and some dairy (lactose). Free sugars are added to foods like sweets, chocolate, sugary drinks and desserts. It also includes sugars found in honey, syrups and fruit juice.

## Fibre

This is another type of carb.

- **Insoluble fibre.** Found in wholemeal bread, brown rice and wholegrain cereals. It helps keep the digestive system healthy.
- **Soluble fibre.** Found in bananas, apples, carrots, potatoes, oats and barley. It helps you manage your blood sugar and cholesterol levels.

You need to eat both types of fibre. Good sources include fruit and vegetables, nuts, seeds, oats, wholegrain bread and pulses.

## How much?

You need some carbs every day. How much depends on how old you are, how active you are and what type of eating plan you may be following.

The amount of carbs you eat has the biggest effect of all on your blood sugar levels after eating, so it's good to be aware what foods contain carbs and to know what a healthy portion size is.

## Need to know

### Glycaemic index

- GI stands for glycaemic index. It's a measure of how quickly foods containing carbs affect your blood sugar levels after you eat them. Some foods affect sugar levels quickly and so have a high GI. Others take longer to affect blood sugar levels and so have a low GI.
- Eating low GI foods can make small improvements to blood sugar levels in people with Type 2 diabetes. But focusing too much on GI without looking at other parts of your diet could lead to an unbalanced way of eating. Also, not all low-GI foods are healthy choices as some are high in fat.
- It's good to think of the bigger picture and choose foods low in saturated fat, salt and sugar as part of making healthier food choices.

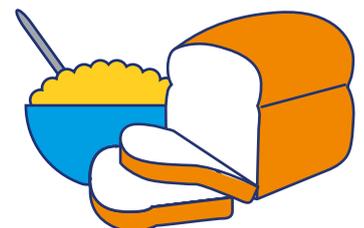
## Some questions

### If I have diabetes, shouldn't I avoid carbs?

Some people with Type 2 diabetes may choose to follow a low-carb diet to lose weight or manage their blood sugar levels.

Although there's some evidence to say that diets like these are safe and effective for a short time, there's no evidence to say they're any more effective than other ways. And, in the long term, this type of diet can be difficult to stick to.

If you're thinking of following a low-carb diet, speak to your healthcare team who can refer you to a dietitian for more personalised advice.



# Your feelings about food and diabetes

There are many ways that food can affect how we feel, just as how we feel can have an influence on what we choose to eat. And knowing what and when to eat can be difficult when you have Type 2 diabetes.

You might be feeling overwhelmed about what you should be eating which can often lead to eating too much of the wrong types of food. We're not saying that you can never eat unhealthy food, but you should aim to eat it in moderation and to make healthier food choices.

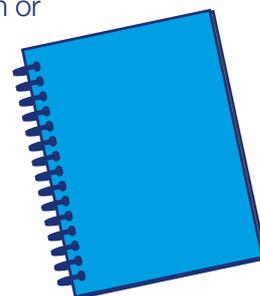
## Change the reason you eat

Eating should be enjoyed, but when we eat mindlessly, we often don't take the time to appreciate what we're eating.

If you find yourself eating foods such as chocolate as a way to relieve emotions, you should try to replace it with something else. You could try watching your favourite TV programme or visiting a friend.

## Start a food and mood diary

If you're worried that the food you're eating is affecting your emotional health or mood you can start a food and mood diary. This is a great way to track what food you've eaten and the effect it could be having on your mood and your diabetes.



Advertisement

## Enjoying what you eat is one of life's pleasures

But if you have diabetes, it can be tricky at times.

For free, helpful advice, real-life stories and hundreds of tasty recipes, go to **Enjoy Food**.

You'll find mealtime inspiration and handy tips to help you eat well, feel good and enjoy food.



To find out more visit:

[www.diabetes.org.uk/t2-enjoy-food](http://www.diabetes.org.uk/t2-enjoy-food)

# Eating out

**You don't need to stop eating out or enjoying a takeaway. Just make sure you have the know-how to make healthier choices.**



## Lunch

- With a meal deal, watch out for triple-decker sandwiches and creamy pastas. And, with the sides, choose healthier options like water and fruit, not sugary drinks and crisps.
- Go for filling, healthy salads with lean protein and seeds. Or, try wholegrain sandwiches or wraps with lean ham, chicken, turkey or fish. Look for low-fat mayo or yogurt dressing, too.



## Healthy snacks and sneaky smoothies

- Vegetable sticks and fruit help towards your five-a-day target. And a handful of unsalted nuts, raisins or other dried fruit is a great snack.
- Go for oven-baked or lower fat crisps. Or air-popped, sugar and salt-free popcorn.
- Try to avoid fruit juices and smoothies. They contain free sugars and it's easy to consume a lot quite quickly, meaning you will get excess calories and carbs. Choosing the whole fruit is better for you. Aim to have no more than one small glass (150ml) of fruit juice or smoothies a day.
- Go for a small pot of low-fat yogurt, or add some mixed berries to a few tablespoons of plain low-fat Greek yogurt.



## Takeaways

### Fish and chips

- Have a smaller portion or remove the batter. Go for thick-cut chips – thicker chips tend to have less fat.

### Burger and chips

- Try the lean or veggie option and skip the cheese and mayo. Go 'bun-less' to cut the calories and order more salad, but watch the dressing.

### Pizza

- Thin bases, sharing with a friend and filling up with salad can help you cut back on fat and calories.

### Indian

- Go for tandoori and tikka options as they're baked and lower in fat. Choose boiled or steamed rice rather than pilau or fried. Fill your plate with salad and yogurt, before adding the rice.
- Watch out for extras like poppadoms and naan breads. Choose chapatti rather than naan bread.
- If there's a choice of starter, think about what's best for you. Chicken or fish tikka is generally healthier than samosas and pakoras.

### Chinese, Thai and Malaysian

- Go for broth-based soups rather than spring rolls or satays. Choose steamed rice over fragrant rice or noodles.
- Stir-fried vegetables are a filling and healthy side.

# Alcohol

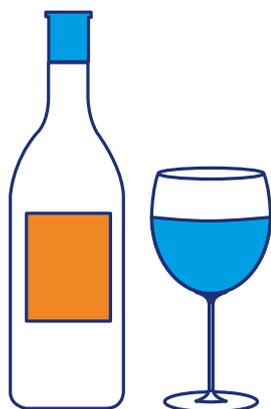
**Most of us like a drink or two. But, when you're having fun, it can be easy to get carried away and lose track of how much alcohol you're drinking. Whether you've got diabetes or not, government guidelines for both men and women say it's safest not to drink more than 14 units a week on a regular basis.**

## Hypos

If you treat your diabetes with medication like sulphonylureas or insulin, drinking alcohol can make hypos more likely. It also slows down the release of sugar from the liver, and sugar is needed if you have a hypo.

If you have too much alcohol, you might not be able to recognise a hypo or treat it properly. Other people can mistake a hypo for being drunk, especially if you smell of alcohol. It's important to tell the people you are out with that you have diabetes, and what help you might need if you have a hypo. Also, make sure you carry some identification to let others know that you have diabetes, like an ID card, medical necklace or bracelet.

If you drink more than a few units in an evening, you will have an increased risk of hypos all night and into the next day as your liver continues to get rid of the alcohol. Always have a starchy snack, like cereal or toast, before going to bed to help reduce this risk.



## The morning after

If you end up having one too many, drinking a pint of water before you go to bed will help to keep you hydrated and may help to prevent a hangover.

If you do wake up with a hangover, you'll need to drink plenty of water. And, if you are suffering the hangover symptoms of headache, nausea, shaking and sweating, check your blood sugar level as you may actually be having a hypo – especially if you take medication that makes hypos more likely, like sulphonylureas or insulin. No matter how awful you feel, you need to treat a hypo straight away – don't ignore it. Likewise, you must stick to your usual medication and have breakfast.

If you can't face food, or if you've been sick, drink as much fluid as you can, including some sugary (non-diet) drinks.

Painkillers may help with a hangover headache, but try to avoid them until your liver has had time to recover. Remember, the morning after doesn't have to feel like this – try following our tips for safer drinking on page 46, and go to [www.drinkaware.co.uk](http://www.drinkaware.co.uk)

## Other health risks

If you have diabetes, you should be aware of the other health risks around drinking. That way, you can help to avoid them by limiting how much you drink.

Here are a few things to watch out for:

- A lot of heavy drinking can lead to raised blood pressure.
- Alcohol can make neuropathy (nerve damage) worse.
- It dehydrates your body and stops you sleeping properly.
- It can also lead to certain cancers and heart disease.

## Alcohol and your emotions

Some people find that alcohol helps them deal with stress or when they're feeling low. It might make you feel more relaxed, but it's not a healthy way of managing these feelings.

Getting more active can really help if you're stressed or feeling anxious. Starting a hobby with a friend, or doing something relaxing like having a long bath or reading a book can all help.

You can talk to your healthcare team about how you're feeling, they'll be able to give you more advice and support about what might help.

### Tips for safer drinking

- 1 Don't drink on an empty stomach – have something to eat beforehand.
- 2 Tell the people you're with that you have diabetes and carry medical ID, especially if you take medication that makes hypos more likely – like sulphonylureas or insulin.
- 3 Alternate alcoholic drinks with lower-alcohol or alcohol-free alternatives.
- 4 Pace yourself – enjoy your drink slowly and keep track of how much you're drinking.
- 5 If you're at risk of hypos, don't forget to take your hypo treatment with you.

### Need to know

- Don't drink more than 14 units of alcohol a week.
- Aim for a few days a week without drinking alcohol.
- Cut back on alcohol if you're trying to lose weight – alcoholic drinks can contain a lot of calories.
- Limit low-alcohol wines, sweet sherries and liqueurs as these tend to be higher in sugar. Also, stick to diet or sugar-free mixers.

## Some questions

### Should I go for lower-sugar beers and ciders?

Avoid these. Although they contain less sugar, the alcohol content is higher, and as little as one pint can bring your blood alcohol level above the legal limit.

### What's in your drink?

Drink	Units
Pub measure (25ml) spirit, eg vodka, gin, whisky (40% ABV approx)	1
Bottle (275ml) alcopop (5.5% ABV)	1.5
Small glass (125ml) white, rosé or red wine (12% ABV)	1.5
Bottle (330ml) lager, beer or cider (5% ABV)	1.7
Can (440ml) lager, beer or cider (5% ABV)	2
1 pint lower-strength lager, beer or cider	2
Medium glass (175ml) white, rosé or red wine (12% ABV)	2.1
Large glass (250ml) white, rosé or red wine (12% ABV)	3

# Exercise



In this chapter

Moving more

48

# Moving more

**Exercise is part and parcel of managing your diabetes. In just the same way that you need to eat the right things, you can also help to manage your Type 2 diabetes by being more active.**

Don't be put off by the word 'exercise'. You don't have to take out gym membership, wear Lycra or take up sports if you don't want to.

But, making time to be active, and making that a priority in your life, is important now more than ever.

It'll help you manage your diabetes and reduce your risk of heart attacks and strokes. It also reduces your risk of cancer, joint and back pain, depression and dementia. And, it helps with diabetes by:

- helping you lose weight or keep to a healthy weight
- helping to improve your blood sugar levels
- helping with heart health by improving your cholesterol and blood pressure levels
- strengthening your muscles and bones
- reducing stress levels and symptoms of depression and anxiety
- improving your sleep.

Don't be intimidated by exercise. All you need to do at the beginning is do more than you were doing before. Every little bit helps.

## How much to aim for



Aim for 30 minutes of moderately intense activity – or 15 minutes of vigorous activity – at least five days a week.



Also, try to do activities that improve muscle strength on two or more days a week. For example, heavy gardening, carrying food shopping or yoga.



You should aim to spend less time sitting down, and more time on your feet.

## Moderate intensity – breathing is increased, but you can talk comfortably.



This could be walking quickly, cycling on flat ground or a leisurely swim.

## Vigorous intensity – you're breathing fast and it's hard to talk.



This could be running, cycling faster or up hills, or faster swimming.

## Exercises for muscle strength



This could be gardening, carrying groceries or yoga.





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## Need to know

- Check with your healthcare team if you have any diabetes complications before you start any new activities.
- Check if you have anything that restricts your ability to be active, like high blood pressure, angina, osteoporosis or asthma.
- Start slowly, and gradually increase the intensity and time you spend on new activities.
- Wear the right footwear.
- Check your feet before and afterwards. Wash and dry your feet properly. Drying well, especially between the toes, helps prevent infections like athlete's foot.
- Wear diabetes ID like a bracelet or necklace, or carry an ID card. This is very important if you're at risk of hypos.
- Drink fluids regularly.

## How you can move more

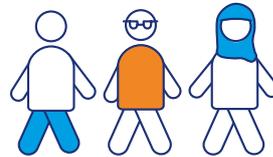
**For a simple way to move more, start walking more than normal. Here are some ideas:**



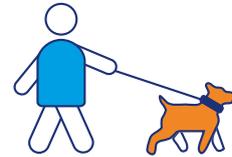
Get off the bus a stop earlier.



Take the stairs instead of the escalator or lift.



Have a walking meeting or catch up with friends.



Do an extra five minutes when walking the dog.

## Some questions

### **I've heard of exercise on prescription – what is it?**

Your local area may have this. It means that your healthcare team can prescribe and tailor a set of exercises for you. Ask your GP if it's something you can have.

### **I find it hard to get started, what should I do?**

Why not join a local group or class to help you increase your activity levels? There are often local walking or running groups and it's a great way to meet people. Try out different classes and see what you enjoy.



Walk to the shops to pick up a few items.



Use a pedometer to keep track of your steps – aim for 10,000 a day.

# Everyday life

## In this chapter

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# Coping with diabetes

**Being diagnosed with diabetes can be a huge shock and you might be finding it difficult to come to terms with. It's important to know that whatever you're feeling is completely normal and you are not alone.**

It's difficult to come to terms with the fact that Type 2 diabetes is a serious condition, which is lifelong for many people.

You are likely to be facing what seems like an endless and daunting list of new tasks. These might include getting to grips with new medications.

On top of this, you might be trying to make big lifestyle changes, like changing the foods you eat and perhaps feeling guilty when you don't get it right.

## Emotions

It's perfectly normal to feel angry, shocked, numb, low and overwhelmed in the weeks and months following your diabetes diagnosis.

After this, most people go through a period of mourning, which involves acknowledging your grief, anger and fear. This process is an important part of your emotional recovery, so don't be tempted to rush or overlook it.

Remember that everyone is different and how you and your family cope with your diabetes diagnosis will vary. You might find that one day you feel positive and motivated to manage your condition and the next you feel low and hopeless.

If your feelings stop you from properly managing diabetes, it's time to get extra support. You don't need to go through this alone. There's lots of support out there. Getting emotional support if you need is just as important as any other part of your treatment.

## Depression

We know that depression is twice as common in people with diabetes. But that doesn't mean that you'll be affected.

Depression is a serious condition that can't be ignored, but it can be treated. It's different from feeling down or sad. It's not possible to simply 'pull yourself together'.

For information or to talk to someone about how you're feeling, contact our helpline – see Other ways to find support, below. It's also important to talk to your doctor and healthcare team.

## Talking to family and friends

Being diagnosed with diabetes can make you feel isolated and you might find it difficult to open up about how you're feeling. But talking to people who you trust can really help. They can give you support and encouragement when you're first diagnosed, or at times when you're struggling.

You could try sharing your diabetes peak (success) and diabetes pit (difficulty) of the day or week with them, to help make it easier for you to talk about how diabetes makes you feel.

## Other ways to find support

- Our website. Visit [www.diabetes.org.uk/t2-coping-diagnosis](http://www.diabetes.org.uk/t2-coping-diagnosis) for more information on how to cope with your diagnosis.
- Our helpline. Call **0345 123 2399** or email [helpline@diabetes.org.uk](mailto:helpline@diabetes.org.uk) to speak to a trained counsellor. They can give you information about your condition, take time to talk things through and explore how you're feeling. If you're in Scotland, call **0141 212 8710** or email [helpline.scotland@diabetes.org.uk](mailto:helpline.scotland@diabetes.org.uk)
- Join a local Diabetes UK group to meet other people who live with diabetes and talk about your experiences. Find out more at [www.diabetes.org.uk/t2-groups](http://www.diabetes.org.uk/t2-groups)

- Learn to manage your condition using our free online education service, Learning Zone. Visit [www.diabetes.org.uk/t2-learning](http://www.diabetes.org.uk/t2-learning)
- Get involved with Diabetes UK's online communities. Our biggest communities are on Facebook and Twitter. You'll also find us on Instagram, YouTube and LinkedIn. Go to [www.diabetes.org.uk/t2-online-communities](http://www.diabetes.org.uk/t2-online-communities) for more details.
- Go to [www.diabetes.org.uk/t2-blogs](http://www.diabetes.org.uk/t2-blogs) for regular posts from others with diabetes or who are living with people with diabetes.
- Connect with others living with diabetes. Join Diabetes UK's online support forum at [www.diabetes.org.uk/t2-forum](http://www.diabetes.org.uk/t2-forum) to find tips, advice and emotional support and be part of a welcoming community.
- For more details of all the ways we can support you, go to [www.diabetes.org.uk/t2-how-we-help](http://www.diabetes.org.uk/t2-how-we-help)

## Tips for coping

- Talk to your healthcare team if you feel down. They can suggest ways of coping and refer you to a counsellor.
- Talk problems through with your family and friends.
- Get in touch with other people with Type 2 – see Other ways to find support, from page 52.
- Calling our helpline for support may help you to understand and cope better.

## Need to know ★

- Don't ignore feelings of depression – get help.
- Your GP and healthcare team can offer support and refer you for counselling.

## Some questions

### Will diabetes affect my relationships? Will I be treated differently?

Most things are easier to face with help from friends and family. But diabetes can put a strain on relationships, particularly if you're having trouble coming to terms with your diagnosis or making changes to your lifestyle, for example.

Your healthcare team can help you fit your treatment into your day-to-day life. They can support you to make changes and refer you for more help if you need it.

### My emotions are all over the place. Is this normal?

Some people go through a stage similar to mourning after being diagnosed: feeling unhappy, anxious, angry and isolated, as though grieving for lost health. You can hide feelings, but that doesn't mean you're coping better.

Everyone's different, but what's certain is that most newly diagnosed people struggle at the beginning.

### I feel overwhelmed. How long will it be before I feel back in control?

Many people feel a lot better before the end of a year. You may prefer to manage by yourself, but others find help from talking to someone – either family, their healthcare team or someone else with diabetes.





## Meet Robin

### Getting advice and support helped

“Being diagnosed with Type 2 diabetes in the spring of 2013 was a really heart-stopping moment. Even though I had my suspicions, I thought that if I had diabetes I would have some dramatic symptoms, so I reassured myself I was fine. It was also a lonely moment for me because I didn’t know anyone with the condition. I wasn’t given any information – I was just told to go away and come back a bit thinner in a month’s time. I felt very much in the dark – it was scary. But I came across Diabetes UK helpline. Knowing what I had to do to self-manage, where to go for advice, and how to start thinking about my diet and doing exercise, was really life-changing.

### Getting active

I realised that I needed to improve my fitness and change my sedentary lifestyle. After a few false starts on the fitness front, I downloaded the NHS Couch to 5k course on my phone. It took me most of the summer to complete, furtively running late at night or very early in the morning so that no one would see me. But, in spite of this, I’d lost 28kg (4st 4lb) by the end of it. In the autumn, the manager of a local running shop suggested I try parkrun ([www.parkrun.org.uk](http://www.parkrun.org.uk)), an organisation offering free, weekly 5k runs. At the time, I was still very conscious of my weight and slow speed – I lost count of the number of times I got as far as

putting on my trainers, only to lose confidence and find something else to do. Eventually, I made it... and I have never looked back! After running over 90 parkruns and volunteering at around 50 of them, parkrun continues to enthuse and inspire me. Whether you’re there to walk, jog, run or volunteer, there’s always a friendly welcome and people with a common interest to speak to.

### Making a connection

I’ve been very lucky to have stumbled into many diabetes communities and my local Diabetes UK Group in Barnet. Along with parkrun, they have all supported me with successfully managing my diabetes. Without them, my journey would have been a very different and far less positive one. As someone who lives with diabetes, I know that there’s a lack of understanding about the condition. What I’ve learnt from peer support, community groups and Diabetes UK is that a lot of people live long, happy lives with diabetes of all types – and we need to get that message out there. Type 2 diabetes continues to tax me on a daily basis, but adopting a new lifestyle has helped me to lose 50kg (7st 9lb), reduce my medication – after a period of good blood test results, my GP and I decided on a trial of controlling my diabetes without metformin – and improved my overall wellbeing. I would never wish to have diabetes, but the process of learning to self-manage has given me a new purpose in life, amazing opportunities and some wonderful new friends.”

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# Sex

**Sex is important and part of some people's relationships. And, when we're unhappy with our sex life, it can affect our wellbeing and closest relationships.**

It's difficult to talk about sexual problems, particularly if you don't know why you're having them. You need to recognise the symptoms and the causes, so you understand them. Then you're halfway there in terms of getting the help and advice you need.

## Sexual dysfunction and diabetes

If you have high blood sugar levels for a long time it can cause sexual problems. These problems are often referred to as sexual dysfunction.

High blood sugar levels can affect your nerves and blood vessels. This means that they can also affect the ones that supply your sexual organs. If this happens, it means that you'll have less blood flow into these areas which can result in your losing some sensation. Losing sensation can mean that becoming aroused, both physically and emotionally, can be harder.

If you are experiencing this, you should be assessed and given the right support and education, so don't suffer in silence – speak to your doctor.

### Women

Female sexual dysfunction is twice as likely for women with diabetes. The cause can be physical, or due to medication – or both. And, emotional and lifestyle factors can also contribute.

The four main areas of difficulty are: desire, arousal, painful sex and orgasm. Treatments include aids for lubrication, clitoral stimulation and therapy.

### Men

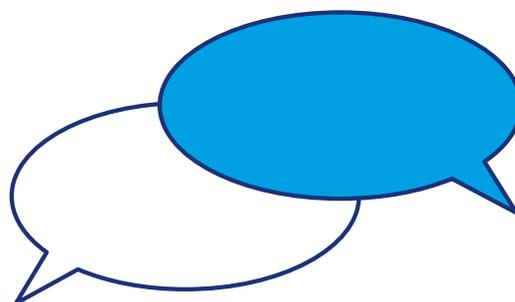
Impotence, also called erectile dysfunction, is the most common problem and it means not being able to get or keep an erection during sex.

Most men have this at some time and 10% have a continuing problem. Again, physical factors or medication can contribute, along with emotional and lifestyle factors. Erectile dysfunction is one of the earliest signs of other complications, so early detection is important to reduce your risk of heart problems and strokes.

There's a wide range of treatment available.

### Tips for dealing with sexual dysfunction

- 1 Talk to your partner about any problems.
- 2 Talk it through with your healthcare team as it could be linked to diabetes. Ask about treatments available.



## Need to know ★

- Other problems linked with diabetes (like heart disease and depression), along with some medications, can increase the chance of sexual problems.
- High blood sugar levels make thrush worse and sex uncomfortable.
- Active sex can cause hypos. So, if you're on medication that increases the chance of hypos, have a hypo treatment nearby. It can also help to discuss this with your partner.

## Some questions

### Can I have a baby if I have diabetes?

Yes, but diabetes means it's vital that you plan for it and get help and advice first. It's important to use effective contraception until you know you want to become pregnant.

Speak to your healthcare team if you're planning to have a baby. They can refer you to a pre-conception clinic.

For more on diabetes and pregnancy, go to [www.diabetes.org.uk/t2-pregnancy](http://www.diabetes.org.uk/t2-pregnancy)



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# Driving

**You can drive when you have Type 2 diabetes. But you need to be careful and informed about certain things.**

## **If you drive a car or motorbike (Group 1 driver)**

- You must tell the DVLA (UK) or DVA (Northern Ireland) if you're on insulin. Your licence will then be renewed every one, two or three years.
- Any changes to your health or treatment between renewals – complications like eye problems or nerve damage, which might affect your ability to drive safely – should be reported to the DVLA or DVA when they happen.
- If you're under medical supervision and using insulin only for a short time (less than three months), you don't need to tell the DVLA/DVA. But you do if you have problems with hypos, severe hypos – where you were completely dependent on someone else to treat your hypo – or hypo unawareness – when you don't sense your blood sugar levels are going low.

## **If you're on non-insulin medication, you don't need to tell the DVLA/DVA unless:**

- You've had more than one severe hypo – where you're completely dependent on another person to treat your hypo – within the last 12 months.
- You can't recognise the signs that you're having a hypo.
- You have a severe hypo while driving.
- You have other medical conditions or changes to existing medical conditions that affect your ability to drive safely. Things like problems with vision, circulation, or sensation.

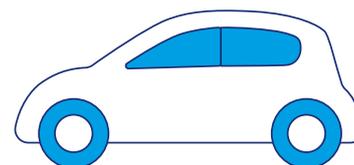
Other than insulin, problems related to hypos are most likely to happen if you're on sulphonylureas or prandial glucose regulators. If you're not sure, check with your healthcare team. The DVLA recommends that people who take medication that can cause a hypo and drive

should be able to check their blood sugar levels. You may want to mention this to your healthcare team if you need a meter and test strips to do this.

**If you're treated with insulin or medication that can cause hypos and drive a lorry, large camper van or pull a large trailer, you'll have to notify the DVLA/DVA. You'll need to be assessed every year to renew your Group 2 licence. There's information on driving for you on our website at [www.diabetes.org.uk/t2-driving](http://www.diabetes.org.uk/t2-driving) We also have information on your driving licence at [www.diabetes.org.uk/t2-group-2](http://www.diabetes.org.uk/t2-group-2)**

## Tips for driving

- 1 Know the symptoms of a hypo – if you've lost hypo awareness, you can't drive.
- 2 Keep spare test strips in the car and bring your meter with you.
- 3 Check your blood sugar levels before you set off and every two hours on long journeys.
- 4 Five to drive – your blood sugars have to be 5mmol/l or above before you drive. If they're just under 5mmol/l, eat some carbs before heading out.
- 5 If they're under 4mmol/l – treat your hypo and check your levels again before driving.
- 6 Always keep hypo treatments where you can easily reach them in the car.
- 7 Take breaks on long journeys.
- 8 Don't delay meals or snacks.



If you feel the signs of a hypo while driving you must not continue to drive – this is a legal requirement. Follow this guidance from the DVLA/DVA:

- **Pull over safely.** If you feel like your blood sugar is low then make sure you pull over as soon as possible.
- **Switch off the engine.** Take the keys out and move from the driver's seat – if you don't, the police can think you're still in charge of the car and you could be prosecuted.
- **Take fast-acting carbs.** Take glucose tablets or sweets, and some longer-acting carbs too, like plain biscuits or crackers.
- **Don't drive until 45 minutes after your blood sugar level has gone back to 5mmol/l or above.** This is the time it takes for your concentration to go back to normal.

If you have poor warning signs of a hypo or have hypos often, you put yourself and others at risk and should probably not be driving. Talk about this with your diabetes healthcare team. If your team tells you to notify the DVLA/DVA, you must do this. If you don't, your doctor will do this on your behalf.

## Need to know

- Tell the DVLA/DVA you have diabetes if you're on insulin or have a Group 2 licence:
  - DVLA: [www.gov.uk/dvla](http://www.gov.uk/dvla)
  - DVA: [www.nidirect.gov.uk/contacts/driver-vehicle-agency-dva-northern-ireland](http://www.nidirect.gov.uk/contacts/driver-vehicle-agency-dva-northern-ireland)
- Tell your insurers.
- Be clear on what you need to do if you have a hypo.

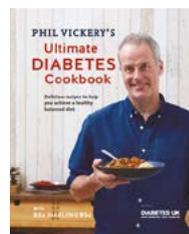
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# Illness

## Like everyone, you're bound to get ill sometimes, or may need to go to hospital.

There's no reason to think you'll be ill more often than others, but if your diabetes isn't well managed you could be prone to infections.

If you don't feel well, take care of yourself and get medical help if you need it.

Blood sugar levels may rise when you're ill, even if you're not eating. This is your body trying to fight off infections and illness.

Some of the culprits are:

- colds and flu
- chest infections
- urinary tract infections
- vomiting and diarrhoea
- skin infections.

Remember the signs of high blood sugar include being thirsty, passing more urine than normal, tiredness and high sugar levels in the blood or urine.

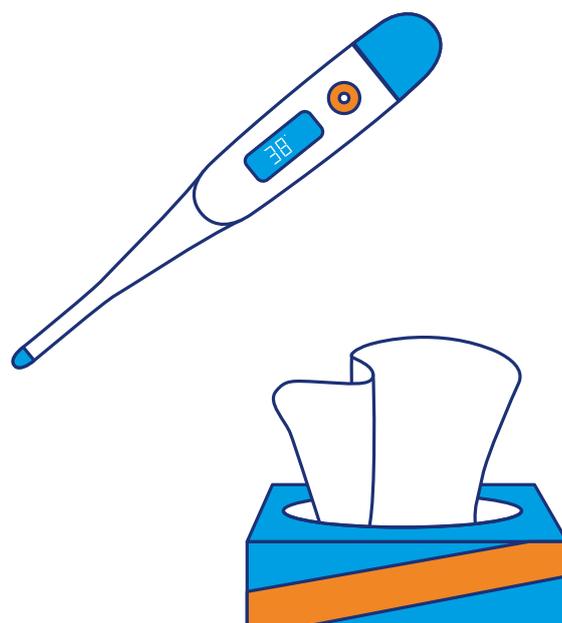
We often don't feel like eating when we're ill, but you still need to eat or drink something with carbs to give you energy. You also need to drink plenty of sugar-free fluids. Aim for at least 2.5 to 3.5 litres (4 to 6 pints) a day.

If you start being sick or can't keep fluids down, get medical advice straight away.

If your blood sugar levels have been very high (over 30mmol/l) for a while, you can become severely dehydrated and develop hyperosmolar hyperglycaemic state (HHS). Symptoms include frequent urination, great thirst, nausea, dry skin, disorientation and, in later stages, drowsiness and gradual loss of consciousness. It can be very serious and you'll need hospital treatment to treat dehydration and correct blood sugar levels.

## Tips for managing illness

- Keep calm. Contact your doctor if you're not sure what to do.
- Keep taking your medication.
- If you check your blood sugar levels, you should check your levels at least four times a day.
- If you can't face food, feel sick or can't keep food down, replace meals with snacks and drinks. Sip sugary drinks – like fruit juice or non-diet cola. Or suck glucose tablets, or sweets like jelly beans. If you let fizzy drinks go flat, it can be easier to keep them down.
- Drink plenty of sugar free fluids – at least 2.5 to 3.5 litres (4 to 6 pints) a day.
- Get medical help if you can't eat or drink, keep being sick and/or have diarrhoea.



## Need to know

- Know the symptoms of high blood sugar and the signs that mean you need medical advice. Make sure your family, friends or your carer know them too.
- If you're in hospital, make sure everyone who sees you knows you have Type 2 diabetes.
- Good diabetes management is important for your recovery. Stress and longer periods of inactivity might affect blood sugar levels. So, if you check your blood sugar levels, check more often.

## Some questions

### **If I need to stay in hospital, who'll look after my diabetes?**

It's important that your diabetes is cared for throughout your hospital stay. You should talk to your doctor or nurse if you have any worries about your diabetes, and agree a plan for managing it while you're in hospital.

Your nurses and doctors should make sure you get a foot examination, support with self-management of medications and advice about avoiding and managing low blood sugars (hypos) or high blood sugars (hypers). They should also make sure you get help in choosing meals and snacks, and making sure meal times are convenient.

What's more, the diabetes inpatient team are there to help you while you're in hospital. Ask the ward staff to contact them if you need their support.

Advertisement

## Do you have a question about diabetes?

### Talk to us.

If you have any questions, concerns or feelings about living with diabetes call or email the Diabetes UK Helpline.

**0345 123 2399**

**helpline@diabetes.org.uk**

9am to 6pm, Monday to Friday



The British Diabetic Association operating as Diabetes UK, a charity registered in England and Wales (no. 215199) and in Scotland (no. SC039136). © Diabetes UK 2019 1417.

**DiABETES UK**  
KNOW DIABETES. FIGHT DIABETES.

# Work

**Diabetes shouldn't affect your chances of getting or keeping a job. It doesn't matter if you're fresh from college or counting down to retirement.**

## The law

There are laws to protect people in the workplace. The Equality Act 2010 applies in England, Wales and Scotland. The Disability Discrimination Act applies in Northern Ireland.

Both set out the principles employers must follow in their treatment of employees and job seekers with a disability, so that they're not put at a disadvantage. The law doesn't say who is or who isn't disabled. It's decided on a case-by-case basis. Even though you may not think of your diabetes as a disability, it is likely you'll be protected by the law.

## Applying for jobs

Apart from the armed forces, it's against the law for an employer to put a blanket ban on recruitment of people with diabetes. But some safety-critical work will have health requirements that exclude people with diabetes – among other medical conditions. Blanket bans have been lifted in the emergency services for people who use insulin. Deciding on whether someone is suitable is now made by individual assessment.



- Recruitment and retention in the police, fire and ambulance services is subject to medical assessment. But the UK armed forces are exempt and can operate a blanket ban on people with diabetes.
- If you develop diabetes while in work, your employer may offer to change aspects of the job, like shift patterns. If you can't now meet the health requirements of the job, your employer may offer you a different job in the same organisation.

## Telling recruiters

It can be hard to decide when to tell recruiters about diabetes. Employers can't ask about your health before offering you work.

But there are some specific exceptions, including:

- the employer wants to know whether adjustments need to be made for the assessment process
- the employer is asking for monitoring purposes – they can't use this information to decide whether they employ someone
- the employer wants to improve disabled people's chance of getting employment
- the question asked is relevant to find out if you can carry out tasks that are necessary to the job.

In some professions, there are certain requirements around certification and physical qualification, and you'll have to disclose your diabetes to be properly assessed. But, mostly, there's no legal requirement to disclose diabetes and it's your decision whether to tell an employer or prospective employer. But if an employer doesn't know – and couldn't have been expected to know you have diabetes, you may not be able to rely on the legislation if you feel you've been discriminated against.

If you do decide to tell your employer you have diabetes, you may find it useful to show them **Support for diabetes in the workplace**, so they get a better understanding of it and how it may affect you in the workplace. Download it from [www.diabetes.org.uk/t2-work-rights](http://www.diabetes.org.uk/t2-work-rights)

## Telling colleagues

Some people don't know much about diabetes. A simple explanation about diabetes is all you need to give. If you don't treat diabetes as a problem, it's less likely your colleagues will. Think about the following things:

- **Hypos at work:** If you're at risk of hypos, it's important to tell colleagues how to recognise and treat a hypo. This stops them overreacting and makes sure any hypos you may have are treated properly. Talk to your first aider about your diabetes too. If you've had a hypo at work and needed help to treat it, talk to your employer and colleagues afterwards. If possible, explain why the hypo happened to show them that you can normally control the situation. They may also be able to help you treat your hypo in the future.
- **Taking time off:** Everybody takes time off work for sickness or hospital appointments. Diabetes doesn't necessarily make you more prone to sickness. But try to arrange several clinic appointments for the same morning and give your employer plenty of notice of when and why you'll be off. When you're ill, get medical attention and tell your employer as soon as you can. If you want to go on a diabetes education course and you're worried about getting the time off, you could ask your healthcare professional to write a letter to your employer in support.

## Tips for getting the best from work

- 1 Be honest with your employer that you have diabetes.
- 2 If you don't feel you can cope with your job as it is, ask your employer to make some reasonable adjustments to your role.

## Need to know

You can get advice about employment issues from our helpline. We also have self-help packs on employment on our website.

- Call **0345 123 2399** or email [helpline@diabetes.org.uk](mailto:helpline@diabetes.org.uk)  
If you're in Scotland, call **0141 212 8710** or email [helpline.scotland@diabetes.org.uk](mailto:helpline.scotland@diabetes.org.uk)
- Download the Employment Support pack at [diabetes.org.uk/t2-work-rights](http://diabetes.org.uk/t2-work-rights)

## Some questions

### **I think I've been turned down for a job because I have diabetes. What can I do?**

You probably need specialist advice initially and, in some cases, legal advice. It'd be the same if you felt discriminated against or you felt you lost your job because of diabetes. Start by getting advice – see Need to know, above, or go to [www.diabetes.org.uk/t2-your-rights](http://www.diabetes.org.uk/t2-your-rights) And if you're a member of a trade union, ask for help from your union rep.

# Travel

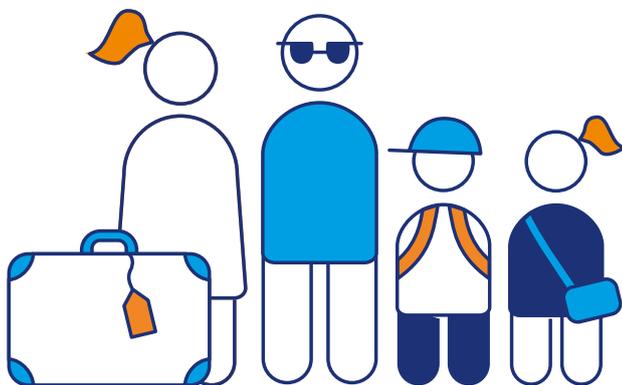
## You can travel all over the world, Type 2 diabetes needn't stop you.

But making the right preparations can minimise any potential problems.

If you're travelling alone, you may like to let the staff know when you check in as a precaution in case you become unwell during your stay.

Things to check before you go:

- Carry your diabetes ID and a letter from your GP. Both of these should say you have diabetes and the medication you need to treat and what equipment you might be carrying.
- Take twice the quantity of medical supplies you would normally use for your diabetes.
- Flights often cross time zones. If you treat your diabetes with medication or insulin, it's important you check with your diabetes healthcare team if you need to make changes to your treatment regime.
- Hot or cold climates may affect how insulin and your meter work. Check with your healthcare team.
- Buy travel insurance, ensuring you tell them you have diabetes when taking out the policy.



## Need to know

- Most travel insurance policies exclude pre-existing medical conditions (medical conditions you had before the policy was taken out) such as diabetes. It's essential when arranging the policy that you fully disclose your medical conditions to the insurance company, including diabetes, even if they don't ask. Failure to do so could lead to them rejecting a claim.

## Some questions

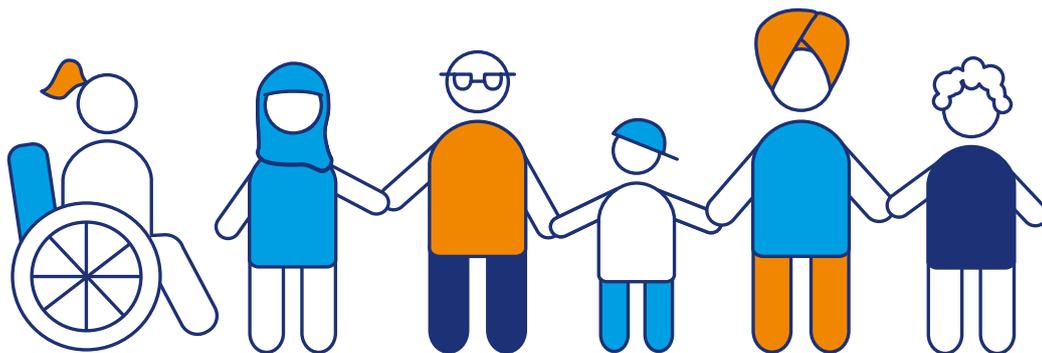
### What if I'm sick while abroad?

Talk to your doctor for advice before you go, and get information from the tourist office, embassy or high commission of the country.

- Check your insurance policy and make sure it covers your diabetes.
- Give the doctor the generic name – not just the brand name – of your medication.
- Read more about dealing with illness on page 60.

## Tips for packing

- 1 Split your diabetes supplies in separate bags.
- 2 If flying make sure you have some of your diabetes supplies in your hand luggage in case your bags get lost.
- 3 If you are carrying syringes and insulin on your flight take a letter from your doctor and have ID ready.



# Become a member today

**Get the inside track on diabetes.  
Fund research. Help us find a cure.**

- Personalised welcome pack to help you get the most out of your membership.
- **Balance** magazine four times a year.
- Expert information tailored for your needs.
- Members' monthly email and research updates.
- Regular discounts in our shop and with selected partners.
- Fund our scientists to find new and better treatments.

You can become a member at  
[www.diabetes.org.uk/membership](http://www.diabetes.org.uk/membership) or call **0345 123 2399**

# Religious fasting

**Fasting is an important part of many religions. As well as the abstinence from food – and sometimes drink – fasting is also usually a time of prayer, reflection and purification. It's an opportunity for people to have a healthier lifestyle by learning self-control and making changes to their diet.**

People with diabetes are usually exempt from fasting, but many still choose to do it. Speak to your religious leader if you want information about whether you're exempt from fasting.

Ultimately, it's a personal choice whether or not to fast. If you do choose to fast, then you need to talk to your healthcare team beforehand. This is to make sure that you're able to look after yourself properly.

## Tips for fasting

If, after talking to your healthcare team, you decide to fast, bear these things in mind:

- 1 If you're taking insulin, you'll need less insulin before the start of the fast. The type of insulin may also need changing from your usual type.
- 2 Before starting the fast, have more slowly absorbed food (low GI) – like basmati rice and dhal – in your meal, along with fruit and vegetables.
- 3 If you check your blood sugar, check your levels more often than you normally would.
- 4 When you break the fast, have only small quantities of food, and avoid only eating sweet or fatty foods. For more information, see page 36 on healthy eating.
- 5 At the end of fasting, have plenty of sugar-free and decaffeinated drinks to avoid dehydration.

## Need to know

- If you have any diabetes complications, like damage to your eyes or heart, or kidney disease, you could make these worse. So, you should seriously think about not fasting.
- If you're taking certain tablets or insulin, fasting can cause hypos. If you feel that you're having a hypo, you must break your fast and take a sugary drink or food followed by some starchy food. Otherwise, you may need medical attention.
- You may develop high blood sugar levels during a fast if you don't take prescribed medication or if you're less physically active than normal.
- Don't forget to speak to your healthcare team if you're planning to fast, on how to adjust your medication (including insulin), testing, and how to avoid highs and lows.

## Talk to us

Do you have a question about Type 2? We can give information and advice on all aspects of living with diabetes. Get in touch for answers, support or just to talk to someone who knows about diabetes. Call our helpline on **0345 123 2399** or email [helpline@diabetes.org.uk](mailto:helpline@diabetes.org.uk)

If you're in Scotland, call **0141 212 8710** or email [helpline.scotland@diabetes.org.uk](mailto:helpline.scotland@diabetes.org.uk)

# Complications

## In this chapter

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# What you need to know about complications

**Type 2 diabetes isn't a condition where you just take the medication your doctor gives you and forget about it.**

Diabetes needs to be managed every day and taken seriously.

If diabetes isn't managed well it can lead to devastating complications like heart attacks, stroke, kidney failure, blindness and amputations. For 70 people a day in the UK, it means an early death.

But complications aren't inevitable.

This section of the guide will help you understand more about the different complications people can face. It also explains how you can reduce your risk of experiencing them.

## Why complications happen

People with diabetes get complications mostly because their blood sugar is high for a long period of time.

When you have high blood sugar levels over a long period of time, it can damage almost every part of your body.

You're also more likely to experience complications if you have too much fat in your blood and if your blood pressure is too high.

## What you can do

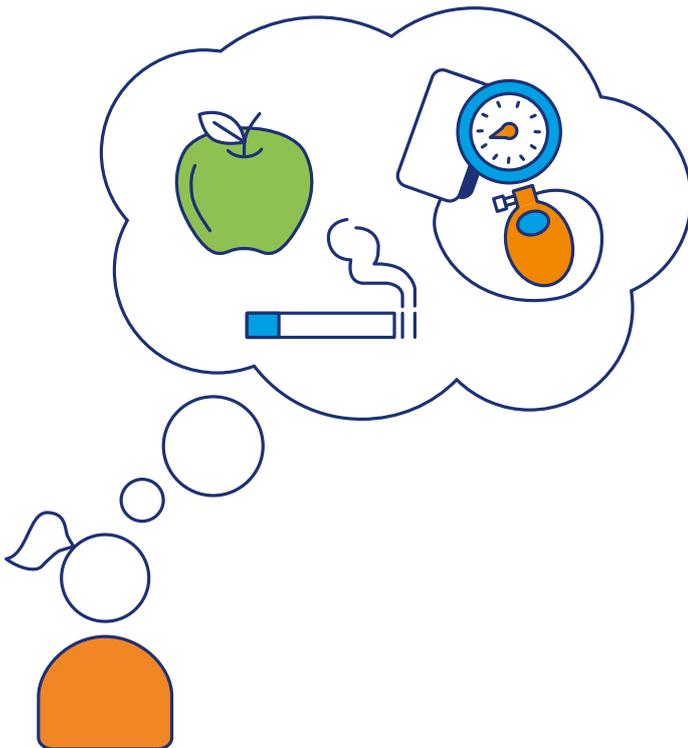
There are a lot of different things you can do to lower your risk of complications. Even if you're struggling with one thing, there will be something else you can try. And everything you do, however small, will make a difference.

### Take action immediately

People with Type 2 are often diagnosed after they've had diabetes for some time. This can mean their blood sugar levels have been high for some time. So, it's really important that now you've been diagnosed, you work with your healthcare team to start lowering your blood sugar levels.

### Manage your diabetes

Keeping your HbA1c within the target range set by your healthcare team is the single most important thing you can do. It's easier said than done but there are lots of ways your healthcare team can help you.



## Stop smoking

If you smoke, then stopping will immediately reduce your chances of complications. Again, your GP and diabetes team will be able to help you quit.

## Eat more healthily

Making healthier food choices can help you to lose weight, bring down your HbA1c, manage your blood pressure and help you reduce the fats in your blood like cholesterol. Ask to see a dietitian if you'd like extra help to eat healthily.

## Keep active

Keeping active doesn't have to mean running a marathon, but the more you're on your feet and moving around the less chance you have of getting complications. If you struggle to get about, there are still ways you can keep active. For tips on moving more, including chair-based exercises, go to [www.diabetes.org.uk/t2-move-more](http://www.diabetes.org.uk/t2-move-more)

## Go to all of your appointments

Everyone with diabetes is entitled to a series of test and checks each year to monitor their diabetes, look out for any problems and see if any further support is needed. These are the 15 Healthcare Essentials we've talked about. Take your checklist with you (see page 24). Making sure you get all of them will mean you know how you're doing and what you need to be aware of.

## What not to do

Don't watch your blood sugar levels rise without talking to your doctor. Your treatment may need to change to get your HbA1c in target – discuss your options with your doctor. This might mean more medication and that's OK. The most important thing is to get your levels in target.



## Meet Tony

**Type 2 diabetes runs in Tony's family. He's determined to avoid complications and help others to do the same**

"I've had diabetes for 13 years, which I control by eating healthily and lots of physical activity – I've never had to take any medication for it. One of my aunts had to go for dialysis three times a week, while another has had some toes amputated. I didn't want to go down that route.

I'm also a Diabetes UK Community Champion. I spoke to 53 community groups last year. I help people be more conscious of their eating habits and know the significance of physical activity. I'm passionate about it. And people take it on board. One chap formed a cycling group after he heard me talk and is now off metformin. It's good to know I've made a difference.

With physical activity, find something you enjoy and get into a routine because it's invaluable in keeping diabetes under control naturally. I know it's easier when you're retired, but those who aren't can make the time to have a schedule. I go to my local gym four times a week, as well as doing yoga, Pilates and Zumba.

And, I always stress the importance of regular medical check-ups and eye tests – we take our cars for annual MOTs, so why not our bodies?"

# Your eyes

**Nobody likes to think about losing their sight. But, for some people with diabetes, it does happen.**

In fact, in the UK, diabetes is one of the leading causes of preventable sight loss in people of a working age.

Eye problems happen because high blood sugar levels over a long period of time damage the blood vessels around the retina, the seeing part of the eye, and eventually the retina itself.

This is called retinopathy and will affect your vision, and can, ultimately, cause sight loss and blindness.

It's extremely unlikely that someone with diabetes will just wake up blind one day, the damage is gradual. Because of this, treatment to slow down or stop the damage is possible for most people.



## Tips for what you can do

- 1 Get your eyes screened.** Often retinopathy can be quite advanced before it starts affecting your sight, so getting them screened every year is essential. That way, you can get the right treatment in time. You should be sent an appointment in the post. This isn't the same as a regular eye test with an optician. You still need to have your regular eye tests, as they check for lots of other eye problems.
- 2 Report any changes to your vision.** If you notice any changes, or are struggling to see as clearly as normal, make an appointment with your doctor immediately. Don't wait until your next screening. If your blood sugar goes higher than usual even for a short period you may notice some blurred vision. This is to be expected – once your sugar levels settle, your vision should return to normal.
- 3 Work with your healthcare team to lower your HbA1c.** Your diabetes healthcare team should set you a target for your HbA1c levels. The closer you get, the lower your blood sugar levels, and the less chance you have of developing eye problems.
- 4 Keep on top of your cholesterol and blood pressure.** High blood pressure and high cholesterol levels increase your chances of getting eye problems.
- 5 Eating healthily, being more active and giving up smoking can help keep your blood sugar levels, blood pressure and cholesterol in your target range.** And that's what you need to help reduce your risk of complications. See pages 36 and 48 for more information.
- 6 If you do start to develop eye problems, your healthcare team can support you and talk to you about your treatment options.** You can prevent them from getting worse if they're spotted early enough.



## Treatment

There are several different treatments for damage to eyes:

### Lasers

The most common is laser treatment, which is used at early and moderate stages of retinopathy. Under a local anaesthetic, a tiny laser is aimed at the damaged bits of your eye, sealing any leaky blood vessels. This helps improve circulation, so that more oxygen and nutrients get to your retina. Some people will need more than one session.

### Injections

If you have swelling around the centre of the retina, called maculopathy, this can be treated with an injection. It can stabilise and rapidly improve vision. Most people will need several injections, normally once a month.

### Steroids

If other treatments don't work, steroids can help people with severe damage to their eyes. A tiny implant placed in the affected eye releases small amounts of long-acting steroids over a period of three years. It reduces inflammation and stops the retina producing a protein that affects sight.

### Surgery

This is an operation called vitreoretinal surgery. You'll need to stay overnight in hospital and have a general anaesthetic. This is a major procedure and can sound pretty daunting, but may be your best treatment option if you have very advanced retinopathy.

How well it works depends on a number of factors, so you'll need to speak to your eye specialist about the risks involved and what's likely to happen afterwards.

## Need to know

- Your diabetes eye screening requires special equipment and will be looking for signs of retinopathy.
- You need to go to your retinal eye screening when you're invited. This should be at least once a year.

## Some questions

### What happens at diabetes eye screening?

It will normally be at your GP surgery, hospital or at an opticians.

You'll usually see a nurse, who will explain what's going to happen during the eye test.

The nurse will put drops in your eyes to make your pupils larger, so they can see the retina more clearly. This doesn't hurt, but the drops may sting a bit and make your vision blurry for a few hours.

Then they'll take a photo of both eyes – the light of the flash will be bright but it won't hurt.

Your sight may be blurry for a while after the test, so it's a good idea to bring someone with you to take you home. And take some sunglasses with you to wear afterwards, as everything will seem very bright.

You'll get a letter telling you the results within six weeks.

If you're not sure what the results mean or have any questions about what to do now, speak to your local eye screening service. Make a note of the results and get to know what they mean – it's important you understand any changes and what you can do to prevent them getting worse.

# Your feet

## Looking after your feet is really important for everyone with diabetes.

Every year in the UK, diabetes causes more than 8,500 lower limb amputations. That's more than 160 a week.

People with diabetes are at risk of amputations and ulcers because high blood sugar levels over a long period of time lead to nerve and blood vessel damage.

But most amputations can be prevented. If you take good care of your feet and check them every day and have a foot check at least once a year that's arranged by your GP practice, you can reduce your risk of developing foot problems.

Everyone with diabetes should have an annual foot check, so make sure you get yours – even if you've been referred to a specialist foot specialist or clinic. They will check your feet but also tell you your level of risk of foot problems.

## Tips for what you can do



**Ask for help to stop smoking.** Smoking makes it harder for blood to flow to areas like your feet. This can cause problems that can lead to amputation.



**Manage your blood sugars levels, cholesterol and blood pressure.** Easier said than done, but there is help out there so ask for support if you need it. You can prevent problems, as well as stop any from getting worse, by meeting your target levels.



**Check your feet every day.** Getting into the habit of looking at your feet means you'll be able to spot any changes, like cuts, colour changes and swelling. If you see a change, speak to your healthcare team straight away.



**Eat a healthy diet and stay active.** You can get help on what to eat from a dietitian and your healthcare team will be able to support you to get more active. We've also got lots of information to get you started.



**Take care cutting your nails.** Use nail clippers and emery boards. Don't cut down the side and don't clean your nails using the point of scissors. If you think you need help to look after your nails, speak to your nurse or podiatrist.



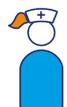
**Make sure your footwear fits.** Don't wear socks or shoes that are tight, loose or rub. Blisters can easily become serious if you have diabetes.



**Use moisturising cream every day.** Using emollient cream everyday help to stop your feet getting dry. It is best to speak to your healthcare team about which cream is best for you. If your feet become too dry, it can lead to cracks and infections developing. Avoid using cream or talcum powder between your toes.



**Don't use blades or corn plasters.** They can damage your skin. Speak to your healthcare team if you need help with corns or other skin problems.



**Get expert advice.** You should get a foot check and expert advice regularly to see if you're at risk of any problems. If you notice a problem, don't wait until your next check, get it looked at.



**Keep useful numbers handy.** Know what to do and who to call – your GP surgery, foot specialist or an out-of-hours service – if you have any problems with your feet.

## Treatment

If you do experience a foot problem, make sure you see someone straight away.

Contact your GP or foot protection team immediately or go to your nearest out-of-hours healthcare service if your GP or foot protection team aren't available. It's also really important to take the weight off your foot.

If it's serious, it's likely you'll need a course of antibiotics and your feet will be covered with a dressing.

### Need to know ★

- Nerve damage is called neuropathy and can also affect other parts of the body, like your hands, stomach, bladder control and genitals. If you're experiencing any of these, talk to your doctor or nurse immediately.
- You need to have your feet and legs checked every year.

## Some questions

### What happens at an annual foot check?

It will usually be at your GP surgery as part of your annual diabetes checks.

You'll need to take off any dressings and footwear, including socks and tights. Your feet will be examined.

Numbness or changes in sensation will be tested with a special piece of equipment. They'll also check your shoes to make sure they're not causing any problems. You'll also be asked some questions, such as:

- Have you had any problems or noticed any changes like cuts, blisters, broken skin, corns?
- Have you ever had any foot problems or wounds?
- Have you had any pain or discomfort?
- How often do you check your feet?
- Do you have any cramp-like pains when walking?
- How well are you managing your diabetes?

At the end of the check, you'll be told the results and your level of risk. It'll be explained to you what this risk means, who to contact if you have any new foot problems, and what you now need to do to look after your feet.

To find out more about your foot check, go to [www.diabetes.org.uk/t2-foot-check](http://www.diabetes.org.uk/t2-foot-check)



# Your kidneys

## One in three people with diabetes may develop kidney disease.

This is also called nephropathy, or renal disease.

Kidney disease in diabetes develops very slowly, over many years. It's most common in people who have had the condition for over 20 years and in people with high blood pressure.

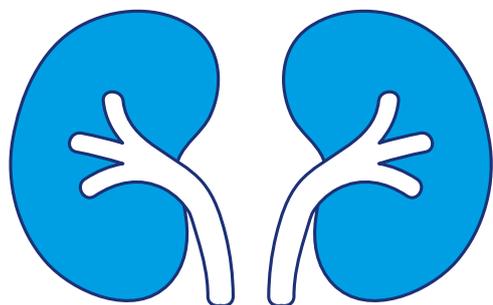
Kidney disease can be a very serious condition. But if it's found early, kidney disease can be treated successfully.

## What is kidney disease?

Kidney disease is caused by damage to small blood vessels. This damage can cause the vessels to become leaky or, in some cases, to stop working, making the kidneys work less efficiently.

In the very early stages there are usually no symptoms and you may not feel unwell. Kidney disease can cause changes in blood pressure and in the fluid balance of the body. This can lead to swelling, especially in the feet and ankles.

As kidney disease progresses, the kidneys become less and less efficient and the person can become very ill. This happens as a result of the build up of waste products in the blood, which the body cannot get rid of.



## Tips for what you can do

- 1 Attend all your medical appointments and take your medication as it's been prescribed.**
- 2 Keep blood sugar levels, cholesterol and blood pressure levels within your target range.** Your targets for both your HbA1c (blood sugar), cholesterol and your blood pressure are set at your annual diabetes review. Keeping to these targets will help prevent damage to your kidneys. Speak to your healthcare team if you need more help with this.
- 3 Get your checks.** Your urine will be checked for protein, called microalbumin and you will have a blood test to check urea, creatine, and estimated glomerular function (eGFR) which show how well the kidneys are working. These checks should happen at least once a year a part of your annual review.
- 4 Stop smoking.** For help to stop smoking, speak to your healthcare team.
- 5 Make healthy food choices.** This includes eating at least five portions of fruit and veg every day, wholegrains, oily fish twice a week, and cutting down on processed foods, salt, saturated fat and sugary foods, as well as keeping to recommended alcohol limits.
- 6 Keep active.** Aim for 30 minutes of moderate intensity activity on at least five days of the week. See page 48.

## Treatment

Spotting signs of kidney damage early is key, and means it can be treated successfully. If it isn't caught early, it could lead to kidney failure.

If you have kidney damage, the focus of treatment is to reduce some of the symptoms and stop it getting worse. Early treatment involves following a healthy lifestyle to stay as healthy as possible – see Tips for what you can do, page 74 – and maybe taking medication. You may be asked to make specific changes to your diet too. Your healthcare team will give you individual advice about the changes you'll need to make.

A group of medications called ACE inhibitors or ARBs are a common form of treatment for people with diabetes. These are particularly successful as they not only lower blood pressure but also help protect the kidneys from further damage. These medications are sometimes used in people who have normal blood pressure, due to their protective effect on the kidneys. Your doctor should discuss any treatment with you before starting you on it, explaining what it does and how it will help.

If you're ill and vomiting or have diarrhoea, speak to your doctor straight away – as some of your medication may need to be stopped urgently. If you have damage to your kidneys, some over-the-counter drugs are no longer safe – so always tell the pharmacist.

If it hasn't been caught early enough or it gets worse, you may need dialysis. This can be done at home or in a clinic. You'll also need to see a specialist renal team of doctors and nurses for information and support.

## Some questions

### How can I tell if I have kidney disease?

You really can't tell that you have it in the early stages. That's why regular testing is crucial.

At least once a year, at your annual diabetes review, you need to have your urine tested for protein and a blood test to see how well your kidneys are working. You may have checks more often if any of these are out of target.

The urine test will check for the amount of albumin (protein) in the urine, which may leak from the kidneys if they're damaged. If there is protein in the urine, your healthcare team will rule out a urinary tract infection – as this could also be the reason for protein in your urine. If it's clear, the test should be repeated at least twice to be sure the result is accurate.

You should also be given two blood tests. The urea and electrolytes test (U and Es), and the estimated glomerular filtration rate test (eGFR). These also look for signs of kidney damage.

If you don't have your annual tests and any kidney problems are left untreated, you may start to feel unwell, tired or nauseous, and your hands and feet might look swollen.

Eventually, this could result in end-stage kidney (renal) failure. Kidney failure can only be treated with dialysis or a kidney transplant.

### Need to know

- You need to have tests every year to check how your kidneys are working.
- Your kidneys have lots of different functions, like controlling blood pressure, keeping bones healthy and making new red blood cells. If kidneys are damaged, things like high blood pressure, anaemia, weaker bones and muscles may be more likely. If you have any of these signs, you may need medication.

# Heart attack and stroke

**People sometimes assume that heart problems or strokes are a separate problem from diabetes.**

**They're not.**

When you have diabetes, you're more at risk of heart disease. This is also called cardiovascular disease (CVD) or coronary disease, and can lead to heart attacks and strokes.

This is because high blood sugar levels over a long period of time can damage the heart and blood vessels.

## Treatment

There are a range of medications that are used to help reduce cardiovascular risk. They can be used to prevent cardiovascular disease and are often started before a problem starts. For more advanced cardiovascular problems, there are a series of different procedures that can help reduce the chances of heart attacks and strokes, like stents. These are inserted into arteries to help keep them open and let blood flow more easily.

### Need to know

- **Watch out for telltale signs of a heart attack.** A dull ache, pain or tightness in the arm, chest or jaw could mean you're having a heart attack. Call 999 immediately.
- **Watch out for telltale signs of a stroke.** If you feel weakness in your arms or face, or your speech is slurred, you might be having a stroke. Call 999 immediately.

## Tips for what you can do

- 1 **Get your HbA1c, blood pressure and blood cholesterol (blood fats) measured at least once a year** as part of your annual diabetes review – make sure you get advice and support from your healthcare team to keep them within your target range.
- 2 **Don't smoke.** Smoking makes it harder for blood to flow around your body, especially to your heart. If you need help stopping, ask your healthcare team for more help or check out our information to help you quit.
- 3 **Make healthier food choices** to protect your heart – reducing how much saturated fat you have is a good place to start. See page 36 for more information on healthy eating.
- 4 **Be physically active** and do some regular exercise.
- 5 **If you're overweight, try to get down to a healthy weight.** Being within the right weight range reduces the strain on your heart.
- 6 **Take your medication as prescribed.** Some medicines help to protect your heart by reducing high blood pressure and you may take these even if you don't have any blood pressure problems.

## Some questions

### How can I tell if I have a heart problem?

A feeling of tightness in the chest or painful legs when walking can be symptoms of partially blocked blood vessels. When this happens to the blood vessels in the heart, it's called angina, which increases the risk of a heart attack. If it happens in the legs, it can increase the risk of ulcers and gangrene.

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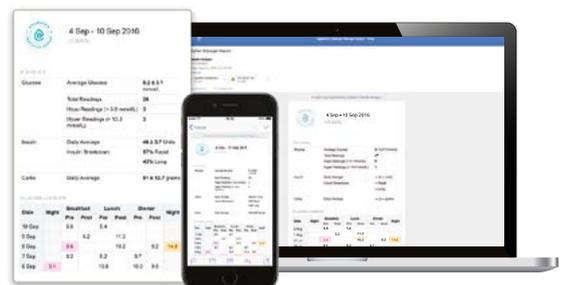
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# Glossary

**Blood sugar levels** (also called blood glucose levels). A measure of how much sugar (glucose) is in the blood.

**BMI** Body Mass Index, which shows your weight in relation to your height.

**Carbohydrate (carbs)** The body's main source of energy, which is broken down into glucose.

**Cholesterol (kol-est-er-rol)** A type of fat found in your blood. Your cholesterol should be measured as part of your annual review.

**Diabetes specialist nurse (DSN)** A nurse with a special expertise in diabetes who'll usually give advice and support between your appointments with things like blood sugar testing and adjusting your insulin. Most hospitals have DSNs and some GP surgeries have DSNs who visit for diabetes clinics.

**Diabetologist (die-a-bet-ol-a-jist)** A doctor who specialises in diabetes and is usually based in a hospital clinic or specialist diabetes clinic, although some areas have community diabetologists, based at your GP surgery or clinic.

**Diabetes complications** Health problems that can develop if you have had diabetes for a long time: these include damage to the kidneys, eyes and nerves, heart disease and stroke.

**Dietitian (die-a-tish-an)** An expert in food and nutrition, who'll give you information and support to help you make changes to your eating habits, if needed. Everyone with diabetes should see a registered dietitian when they're diagnosed.

**Estimated glomerular filtration rate (glow-mehr-you-lar), or eGFR**  
A test to measure how well the kidneys are working.

**Exercise on prescription** A scheme that allows GPs to refer you for a certain number of exercise sessions with a qualified trainer, usually free or cheaper than the normal rate.

**GP** The doctor with the overall responsibility for your care. If they have a special interest in diabetes or are an expert, they may play a bigger role in your care. If not, they may refer you to a diabetes clinic.

**HbA1c test** A fingertip blood test or blood sample from the arm that measures blood sugar levels over the last two to three months.

**Hyperosmolar hyperglycaemic state (HHS)** When blood sugar levels have been very high (over 30mmol/l) for a while. Causes severe dehydration and needs hospital treatment.

**Insulin** The hormone that keeps the levels of glucose in the blood under control.

**Metformin** A common medicine used to treat Type 2 diabetes by reducing the amount of sugar (glucose) that the liver releases into the bloodstream.

**Millimoles per litre (mmol/l)** A measurement of the concentration of a substance in a given amount of liquid: expresses the amount of glucose in the blood.

**Monofilament** A fine plastic strand used for testing the nerves in your feet.

**Ophthalmologist (op-thal-mol-a-jist)** A doctor who specialises in conditions that affect the eye. They'll be involved with your retinal screening review and treatments, if needed.

**Personal health targets** The targets, usually set by your diabetes team, which you need to aim for to manage your diabetes: these include blood sugar levels, blood pressure and weight.

**Pharmacist (farm-a-sist)** Based in pharmacies or chemist shops. As well as giving you your prescription supplies, they may give you a medication review and lifestyle advice.

**Podiatrist (poe-die-a-trist)** An expert in feet and legs who may be asked to check for – and manage – problems related to diabetes.

**Practice nurse** A nurse based at your GP surgery who'll support your diabetes care. Some may have specialist knowledge of diabetes. Many are responsible for managing the day-to-day needs of your diabetes care.

**Psychologist (sy-kol-a-jist)** An expert who'll give counselling to help you deal with any difficulties you're facing, especially with managing the effects and impact that diabetes has on your life.

**Retinopathy (ret-in-op-a-thee)** A condition where there's damage to the retina – the seeing part of the eye.

# Who we are

**We are Diabetes UK. Our vision is a world where diabetes can do no harm.**

Diabetes affects more people than any other serious health condition in the UK. More than dementia and cancer combined. That means we need to take action now.

Because we're the leading UK charity for people affected by diabetes, it's our responsibility to lead the fight against the growing crisis.

And this fight is one that involves all of us – sharing knowledge and taking diabetes on together. Until we achieve our vision.



**A world where  
diabetes can  
do no harm.**



## Get in touch

**Call** 0345 123 2399

**Email** [helpline@diabetes.org.uk](mailto:helpline@diabetes.org.uk)

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We welcome your feedback. If any information in this guide has been particularly helpful or if you would like to suggest any improvements, please send your comments to: **[helpline@diabetes.org.uk](mailto:helpline@diabetes.org.uk)** or write to us at: Diabetes UK Helpline, Wells Lawrence House, 126 Back Church Lane, London E1 1FH