

YOUR GUIDE TO TYPE 2 DIABETES



DiABETES UK
KNOW DIABETES. FIGHT DIABETES.

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WELCOME

Being diagnosed with type 2 diabetes can be a difficult time with lots of information to take in. You will probably hear different things from different people. How do you make sense of it all?

This booklet is here to help. Get the key facts about staying healthy and learn how other people living with diabetes make their lives easier.

We've also included some information about remission. This means that some people with type 2 diabetes are able to get their blood sugars back to healthy levels and they don't have to take diabetes medication anymore.

There's lots of support available if you're feeling overwhelmed. Chat to your healthcare team or talk to us. See the back cover for ways to get in touch.

With all the facts, you'll understand that you can live a long and healthy life with type 2 diabetes. And we are here to support you.

This guide is for adults, but children can get type 2 diabetes as well.

Around 1,500 children are living with type 2 diabetes. It's still rare, and most children with diabetes have type 1, which can't be prevented and isn't linked to lifestyle. Find out more at diabetes.org.uk/t2-children.

What is type 2 diabetes?

Type 2 diabetes is a serious condition where the insulin your pancreas makes can't work properly, or your pancreas can't make enough insulin. This means your blood glucose levels, also known as blood sugars, keep rising.

We all need insulin to live. Insulin is a hormone made by your pancreas. It allows the glucose, another word for sugar, in our blood to enter our cells and fuel our bodies.

When you have type 2 diabetes, your body still breaks down carbohydrate from your food and drink and turns it into sugar. The pancreas then responds to this by releasing insulin. But because this insulin can't work properly, your blood sugar levels keep rising.

This means more insulin is released.

For some people with type 2 diabetes this can eventually tire the pancreas out, meaning their body makes less and less insulin. This can lead to high blood sugar levels, also called hyperglycaemia.

Watch our video on type 2 diabetes at diabetes.org.uk/t2-what-is



I had been feeling unwell, but in such a gradual way that I'd not paid attention. It wasn't until I was actually quite poorly that I made it to the doctor. After blood tests, they diagnosed me with type 2 diabetes. It hit me like a brick wall.



Steve
Diagnosed with
type 2 diabetes in 2016

Symptoms

Type 2 diabetes develops more slowly than type 1 diabetes. You may not have symptoms before being diagnosed, but some common symptoms are:

- going to the toilet more often, especially at night
- feeling more tired
- losing weight without trying
- feeling extremely thirsty.

Risk factors

Some things can increase your chance of getting type 2 diabetes.

These include:

- If you're white and over 40, or over 25 if you're African Caribbean, Black African, or South Asian (Indian, Pakistani or Bangladeshi).
- If you are living with obesity or overweight.
- If your waist size is too large.
- If you are African Caribbean, Black African, or South Asian (Indian, Pakistani or Bangladeshi) or Chinese.
- If you have a parent, brother or sister with diabetes.

- If you have a history of high blood pressure, heart attack or strokes, gestational diabetes, or severe mental illness.

Family and friends

Encourage your friends and family to see if they're one of the 13.6 million in people in the UK with an increased risk of type 2 diabetes. With the right support, up to half of type 2 diabetes cases can be prevented or delayed.

Ask them to check their risk at

diabetes.org.uk/t2-risk

Managing type 2 diabetes

The treatments for type 2 diabetes help to manage blood sugar levels and also reduce your risk of diabetes complications.

Treatments include:

- Eating healthy food, being as active as you can and maintaining a healthy weight.
- Medications like tablets and injections, that may include insulin.
- Weight loss surgery.
- Other ways to put type 2 diabetes into remission.

MANAGING TYPE 2 DIABETES



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.

Rohit
Diagnosed with
type 2 diabetes in 2003



Many people with type 2 diabetes will need a combination of these treatments. Because everyone's different, it can take time to figure out what works best for you. Your diabetes healthcare team will talk to you about the best way to manage your diabetes.

Most people will need to make lifestyle changes. Talk to your healthcare team to see what sort of changes you can make, like eating healthier food, being more active, and getting support to lose weight if you need to.

You can live a healthy and full life with type 2 diabetes and these things may help you:

- Setting goals to improve your health.
- Getting support, like going to a diabetes management course.
- Going to your healthcare appointments.
- Getting emotional support if you need it.
- Talking to other people who also have type 2 diabetes.

Blood sugar checks

Blood sugar checks and tests are part of diabetes management. There are different ways to test or check blood sugar.

HbA1c test

This blood test looks at your average blood sugar levels over the last three months. You'll usually have an HbA1c blood test at the clinic at least once a year to see how well your diabetes is being managed. You might have it done every three or six months depending on what's going on with your diabetes.

A high HbA1c means you have too much sugar in your blood. This means you're more likely to develop diabetes complications, like serious problems with your eyes and feet.

Lowering your HbA1c level will help you reduce your risk of complications.

Checking your own blood sugar

Some people need to check their own blood sugar at home by doing a finger prick and using a blood glucose meter. Your healthcare team will explain how to do this. If you need to do this, you will be given a meter and prescribed test strips. If you want to check your own blood sugars but haven't been advised to, you should speak to your healthcare team.

This test tells you your blood sugar level at that moment. If you understand how medication, food and activity levels affect your blood sugar levels, you can make changes and get advice on your medication.

You'll prick your finger with a small needle called a lancet, put the blood on a test strip and use a blood glucose testing meter to check your sugar levels. After the test, throw the needle away into a sharps bin.

Find out more about checking your blood sugar at diabetes.org.uk/t2-finger-prick

What are my targets?

Ask your healthcare team what your blood sugar target is. It's normally between 4-7mmol/l before meals and less than 8.5mmol/l two hours after meals. Checking blood sugars at home is important if you are at risk of low blood sugars, which are also called hypos, and certain diabetes medications increase this risk.

My agreed targets

Before meals:

After meals:

Tips for checking blood sugar using a blood glucose meter:

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 area of the finger 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.



Medication for type 2 diabetes

There are different treatments available to help you manage type 2 diabetes. Everyone is different, so treatment will vary depending on your needs.

When you're first diagnosed with type 2 diabetes, you may not need medication. Lifestyle changes could be all you need. But at some point, most people with type 2 diabetes also need to take medication to keep their blood sugar levels healthy. This doesn't mean you've done anything wrong, but your body just needs some help to keep blood sugar levels in a healthy range and reduce the risk of complications. It can be overwhelming when you are first prescribed a new medication, but the Diabetes UK Helpline is here to support you.

If you treat your type 2 diabetes with medication, you won't need to pay for medications. In England, you'll need a medical exemption certificate to claim your free prescription unless you're 60 or over. For more details, go to diabetes.org.uk/t2-prescriptions

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

- **The name.** Most medicines have two names. One is the generic name, which is the active ingredient, for example metformin. The other is the brand or trade name that it's sold under, for example Glucophage. They also belong to a family or class, for example biguanides.
- **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?

Tips for remembering your medication:

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 and get organised a week at a time.

3. Keep your medication

nearby. Keep them somewhere you will see them, but away from children's reach, maybe near your TV or computer or with your toothbrush.

4. Use an alarm.

Set reminders on your phone or computer.

Tablets and medication you inject

Diabetes medications are safe but like many other medications they may have side effects or interact with other medications you're taking. Because medicines can affect you differently, your healthcare team will speak to you about what's best and discuss any side effects. If you need more information, you could also speak to a pharmacist or check the patient information leaflet that comes with the medication.

As well as helping to manage blood sugar levels, some of these medications may have other benefits like protecting your heart or kidneys or helping with weight loss. Ask your healthcare team why they are prescribing you a certain medication.

Biguanides (metformin)

Common brand name:
Glucophage®

This is the most common medication for type 2 diabetes and is usually the first treatment if lifestyle changes are not enough to manage your blood sugar levels. Metformin reduces sugar absorption from food, helps insulin work better and may stop your body from releasing as much stored sugar. It can help with weight loss.

Metformin comes in standard and modified release tablets and is also available in liquid form.

Taken up to three times a day, with a meal, or once a day as slower release.

Sulphonylureas

There are a number of different tablets in this medication family, including gliclazide (Diamicron) and glibenclamide (Daonil). They work mainly by stimulating the pancreas to make more insulin. They also help insulin to work more effectively in the body.

The medicine is taken once or twice a day with or shortly before a meal.

They can cause low blood sugar levels and may encourage weight gain.

Other medications

You may need to take other types of medications to help manage your blood sugars. There is more information about these at the back of the booklet, on page 60.

Insulin

If you have type 2 diabetes, your pancreas doesn't make enough insulin or the insulin it does make doesn't work correctly. This is called insulin resistance.

Why might I need insulin?

Everybody with type 1 and some people with type 2 diabetes need to use insulin as a medication to help them manage their blood sugar levels.

If you have type 2 diabetes and your doctor thinks insulin can help you, it doesn't mean you now have type 1 diabetes. You still have type 2 diabetes, but you've changed treatment.

If you have type 2 diabetes, you may not need to use insulin straight away. But some people have very high blood sugar levels

when they are first diagnosed. Insulin can be used as a short-term treatment to help quickly bring down your blood sugar levels.

Some people may need to take insulin for a particular reason, like during pregnancy, a severe illness, or after surgery. But you may also need to start insulin as a treatment if other medications haven't helped managed your blood sugar levels or are not appropriate for you.

If you need insulin, it isn't your fault and it doesn't mean you haven't managed your diabetes well. Insulin is simply another medication that can help to keep you as healthy as possible. Managing blood sugars effectively is really important in reducing your risk of future diabetes complications and insulin may be the most appropriate treatment choice for you. Many people with type 2 diabetes need to use insulin as treatment at some point.

Once you are on insulin

It's still important to keep going to your appointments and manage your condition with healthy lifestyle choices. Staying active and eating a healthy diet will reduce the risk of complications from your diabetes.

Putting on weight

When you start taking insulin, you may notice that you start to put on weight. There can be lots of reasons for this, like the type and amount of insulin you take and your diet. Insulin helps your body to use sugar from food as energy, and store any extra. It can also make you feel hungrier, so you might eat more than usual. If you're worried about putting on weight, or you'd like some help losing weight, then we're here to help.

You might also find it helpful to speak to others who have similar experiences. You can join our online forum at diabetes.org.uk/t2-forum

Types of insulin

There are five different types of insulin and they all work slightly differently to manage your diabetes. Some are long-acting and work in the background (basal insulin). Others are shorter-acting and help manage blood sugar levels related to the carbohydrates in meals

(bolus insulin). People with type 2 diabetes are more likely to be prescribed a mixed, intermediate or long-acting insulin.

How to take insulin

Your healthcare team will show you how to inject insulin with a special pen. The places to inject are usually the thigh, bottom, stomach or upper arm, where there's more fatty tissue.

The injection shouldn't hurt too much. As you get better at it and relax more, it will hurt even less. With confidence, it will become second nature.

If you're finding it difficult or painful to inject, speak to your nurse who will be able to help.

These are the steps:

1. Wash and dry your hands.
2. Choose where to inject. It's important to choose a different spot each time. Otherwise hard lumps can form and stop you from absorbing and using the insulin properly.

3. Attach the needle to your pen, removing the outer and inner caps, and dial up two units of insulin. Point your pen upwards and press the plunger until insulin appears from the top of the needle. This is called priming and helps regulate your dose by removing any air from the needle and cartridge.
4. Dial your dose and make sure the spot you're injecting is clean and dry.
5. Insert the needle at a 90° angle. You might want to gently pinch the skin before injecting. Press the plunger until the dial goes back to 0.
6. Count to 10 slowly to give the insulin time to enter your body before removing the needle.
7. Throw away the needle using your needle clipper or sharps bin. Your healthcare team will tell you how to get rid of the bin safely when it is full.

Insulin on prescription

You're entitled to get your insulin for free on prescription.

Your healthcare team will suggest how much to get and store at home, but most people get enough for three months. It's a good idea to have two weeks' worth left when you put your repeat prescription in.

Insulin storage

Insulin needs to be kept at temperatures lower than 25°C or 77°F. The best place to keep the insulin you're not using is in the fridge. The ideal storage temperature is 2 to 6°C or 36 to 43°F. For the insulin you're using on the day, room temperature is usually fine. But if the heating is on or it's summer, put it in the fridge if you're worried.

Don't put insulin in the freezer, as this may damage it. If you leave it out of the fridge for 28 days or more you'll need to throw it away as the insulin will have broken down.

Some insulins may need to be stored slightly differently so make sure you read the information leaflet that comes with yours, or ask your healthcare team for more advice.

Hypos and hypers

Hypos

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

Not everyone with type 2 diabetes has hypos. But they are more likely if you take insulin and certain medications.

Many things can cause a hypo, like missing a meal, not eating enough carbs, exercising more than usual, taking too much medication, or drinking alcohol on an empty stomach.

You shouldn't try and keep your blood sugar high to avoid hypos. High blood sugar can make you thirsty, go to the toilet often, feel tired and have serious long-term health complications.

If you feel worried about taking insulin and having hypos, it's completely normal. It helps to talk about it and find support.

Talk to your nurse or healthcare team, or contact our helpline: call **0345 123 2399** or email helpline@diabetes.org.uk

Hypo signs

Everyone has different symptoms, but they happen quickly. Look out for:

- trembling, feeling shaky, and sweating
- being anxious, irritable, or tearful
- looking pale
- palpitations and a fast pulse
- lips feeling tingly
- blurred sight
- being hungry or nauseous
- tiredness
- having a headache or being unable to concentrate
- confusion.



Treating a hypo

Acting quickly stops a hypo from getting worse. If you notice symptoms or a blood sugar test shows your levels are too low, treat the hypo immediately. Eat or drink 15 to 20g of fast-acting carbs, like:

- four to seven 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 are likely to need some more carbs to stop your sugar levels from dropping again. Try to eat 15 to 20g of a

slower-acting carb like a sandwich, a piece of fruit, cereal or milk. Or it could be your next meal if that's due.

If you become unconscious

If a hypo is untreated, you could start feeling confused, sleepy or even become unconscious. Although rare for types 2 diabetes, severe hypos can happen and you need help to treat them.

Your family and friends must know how to give you immediate help. They must:

- Put you into the recovery position, on your side, with your head tilted back and one knee bent.
- Give you a glucagon injection, an emergency injection that raises blood sugar levels, if you have one and someone knows how to use it.
- If you don't have a glucagon injection, or haven't recovered 10 minutes after the injection, call 999 and ask for an ambulance.

They shouldn't try to give you any food or drink until you recover because you can't swallow and could choke.

It's a good idea to record any hypos to look for patterns. If you have lots of hypos, get in touch with your healthcare team.

After a hypo, your blood sugar may go up because you felt hungry and ate a lot. It can also happen when the hypo causes you to release stored sugar to correct your blood sugar levels. If you're on insulin, don't increase the dose.

Tips for preventing a hypo:

- Don't miss a meal.
- Eat enough carbs, especially if you're more active than usual.
- Take your medicine correctly.
- Don't drink too much alcohol or drink on an empty stomach.

Things to remember:

- Keep hypo treatments with you.
- Check the carb content if you buy new hypo treatments, as ingredients can change.
- Don't choose high-fat foods like chocolate or biscuits. The fat slows down sugar absorption, and they don't work quickly enough.
- Check your blood sugar levels before bed and during the night if you have night-time hypos.

- Carry diabetes identification, like an identity card, bracelet or necklace.

Alcohol

Drinking alcohol can make hypos more likely if you take insulin or tablets like sulphonylureas as it can slow down the release of sugar from the liver. 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, so they can help you if you have a hypo.

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.

Hypers

A hyper, or hyperglycaemia, is when your blood sugar is too high. This means above 7mmol/l

before a meal or above 8.5mmol/l two hours after a meal.

You could have a hyper for many reasons like missing some medication, eating more carbs than usual, feeling stressed, or being temporarily unwell. It can also happen if you overtreat a hypo.

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

Tips for preventing a hyper:

- Be as active as possible.
- Know your carb portions and how they affect your blood sugar levels.
- Take your diabetes medication even if you're ill and not eating. If you take a certain type of diabetes tablet called SGLT2i and become unwell, you should stop taking these. Find out more on page 46.
- Remember your medication and always take it correctly.
- Talk to your healthcare team as you may need more medication.

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 weeing a lot, being very thirsty, feeling sick, dry skin, disorientation and, in later stages, feeling sleepy and gradual loss of consciousness. Contact your healthcare team straight away if you experience any of these symptoms. Otherwise it can become very serious and you'll need hospital treatment to treat dehydration and correct blood sugar levels.

HEALTHY LIVING



Managing your weight

If you're living with obesity or overweight, losing weight is one of the most helpful things you can do to look after your diabetes.

Losing weight improves your blood sugar, blood pressure, and cholesterol, known as blood fat levels. It also lowers your risk of developing serious problems with your eyes, feet and heart. It's one of the most effective ways to manage type 2 diabetes. You may even be

able to get type 2 diabetes into remission if you lose weight, see page 20.

Setting a realistic target is really important. Losing just 5% of body weight can have real benefits for your health. This is a good place to start and your healthcare team can help you set an achievable weight-loss target. If you want to lose more weight, there is support available to you.

Losing weight can take time. But with the right plan and support, you can get there. There is no one-size-fits-all approach to weight loss. Find something that works for you and that helps you eat healthily in the long term.

There's information on our website about different ways to lose weight and we've developed a weight loss guide to help you.

Regular physical activity has many health benefits and will help you in your weight loss journey.

Find out more at diabetes.org.uk/t2-healthy-weight

Diet

Finding an enjoyable eating plan that fits with your life makes losing weight easier. Even if you don't reach your target weight, losing weight can make a difference to your diabetes.

Different diets can help people with diabetes lose weight. Some examples are a low-fat, healthy balanced diet, a low-carbohydrate diet, where you eat less than 130g of carbs a day, and the Mediterranean diet, based on plant foods, wholegrains and olive oil. There are also very low-calorie diets and meal replacement diets.

We have more information on our website at diabetes.org.uk/t2-weight-loss

Medications

Your healthcare team may be able to prescribe some medications that can help with weight loss. One of these is Orlistat. Some diabetes medications also help with weight loss, see page 10.

Avoid buying medications online and always get advice from a healthcare professional.

Weight-loss surgery

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

For people with diabetes, bariatric surgery isn't just about weight loss. It is now seen as an actual treatment for type 2 diabetes, and the weight loss is a bonus.

Bariatric surgery changes the way the digestive system works and improves the way your body uses insulin, which is helpful for people with type 2 diabetes.

Find out more at diabetes.org.uk/t2-weight-loss-surgery

Remission

If you have type 2 diabetes and go into remission, it means your HbA1c is below 48mmol/mol for at least three months, without needing any diabetes medication.

People can get their diabetes into remission through weight loss, usually through losing a lot of weight quickly by one of two ways:

- An intensive, low-calorie diet of around 850 calories a day.
- Weight-loss surgery called bariatric surgery.

Some people have been able to do it through a more gradual, less intensive diet.

Remission is more likely if you lose weight as soon as possible after your diabetes diagnosis. If you have obesity, you are more likely

to put your diabetes into remission if you lose a larger amount of weight, around 15kg or 2 stone 5lbs, as quickly and safely as possible following your diagnosis.

If you do want to start losing weight quickly to work towards remission, it's important to talk to a healthcare professional before you begin, to make sure it's right for you. Your healthcare team may tell you to reduce or stop certain medications, for example insulin or sulphonylureas, before you begin losing weight.

Even with weight loss, not everyone's diabetes will go into remission but losing weight in itself has lots of benefits.

Once you are in remission

Going into remission is brilliant and can transform your life for the better. But it's not a 'cure' or a 'reversal' for type 2 diabetes because you need to maintain it.

We also don't know yet if people can maintain remission permanently.

Because your blood sugar levels may go back into the diabetes range

even if you have been told you're in remission, you should keep going to your regular check-ups.

Find out more about remission at diabetes.org.uk/t2-remission

Eating well

Choosing healthier foods and eating well can bring lots of health benefits for type 2 diabetes. You'll find it easier to manage your blood sugar levels, blood pressure and blood fat levels, and it can reduce your risk of complications.

We have given some helpful tips on the next pages, but there is a lot more information about eating well in our booklet, **Eating well with diabetes**.

You can order this booklet for free on our online shop at diabetes.org.uk/t2-eating-well

A healthy diet

A healthy diet is important for everyone. And if you have diabetes, it's one of the best things you can do to reduce your risk of developing diabetes complications.

Choose healthier carbohydrates

You need to know about carbs because these are the foods that have the greatest effect on your blood sugar levels after eating. Choose the healthy ones and keep an eye on portion sizes. Healthy carbs include:

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

You should cut down on low-fibre carbs like white bread, white rice and highly processed cereals. Check food labels if you're not sure if something is high in fibre.

Eat less salt

Too much salt can increase your risk of high blood pressure and that puts you at risk of heart disease and stroke.

Eat no more than 6g, or one teaspoon, of salt a day.

Packaged foods already have salt in them so check the labels and go for those with less salt. In fact, 75% of the salt we eat comes from processed foods. So, you can reduce your salt intake by cooking from scratch and by adding flavour with herbs and spices instead.

Eat less red meat and processed meat

If you're cutting down on carbs, you could be tempted to eat more meat. However, don't replace carbs with red meat like beef, lamb or pork or processed meat like ham, bacon or sausages. Eating too much of these is linked to heart disease and some cancers. Instead, try swapping with:

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

Beans, peas and lentils are high in fibre and don't affect your blood sugar levels quickly, so they're a great way to feel full on healthier food.

Eat more fruit and vegetables

Fruit and vegetables are full of vitamins, minerals and fibre. Fibre is important because it stops your blood sugars going up too quickly after eating carbs. It also helps keep your bowels healthy. Aim to eat more fruit and vegetables at mealtimes and snack on them when you're hungry.

Although fruit is sweet, your body processes the sugar in whole fruit differently from free sugars. In fact, fruit is good for your overall health. So you can eat it regularly, but it's best to spread it out throughout the day rather than have lots in one go.

Choose healthier fats

We all need some fats in our diet – but different types of fat affect our health in different ways.

The healthier fats are the unsaturated ones and they're in foods like unsalted nuts, seeds, avocados, oily fish, olive oil and sunflower oil. Also, the fats in oily fish like trout, herring, sardines, salmon and mackerel have omega-3, which is good for your

heart too. So, aim to have two portions of oily fish a week.

Saturated fats from red and processed meat, ghee, butter, lard, biscuits, pies, cakes and pastries aren't healthy. This is because they can increase your blood fat levels and raise your risk of heart disease. So, you need to cut down on them.

All fats are high in calories, even the unsaturated kind, so you may want to cut down on cooking with oil and go for steaming, grilling or baking instead if you are keeping an eye on your weight.

Cut down on free sugars

Cutting down on free sugars will help you manage your blood sugar levels, keep your weight down and reduce your risk of health conditions such as heart disease.

It's difficult to cut out free sugars completely but try to swap in healthier choices. Swap sugary drinks, energy drinks and fruit juices for water, milk, tea and coffee – without sugar. It's also fine to try low- or zero-calorie sweeteners, also called artificial sweeteners.

If your diabetes treatment means you sometimes have hypos and need to treat them with sugary drinks, then don't stop doing that. However, talk to your diabetes team if it happens a lot because you may need to have your medication adjusted.

Snack smart

Go for yoghurts, unsalted nuts, seeds and fruit and vegetables instead of crisps, biscuits and chocolate. And keep an eye on portion sizes.

Be sensible about alcohol

Alcohol is high in calories so if you're thinking about losing weight, you need to cut back. Too much alcohol can also increase your risk of heart disease and certain types of cancer. So, try to stick to no more than 14 units a week and spread it over three or more days. Avoid binge drinking and have several 'dry' days a week when you don't drink at all.

If you take insulin, or other diabetes medications that cause hypos, such as sulphonylureas, then don't drink on an empty stomach as it could cause a hypo.



By eating the right foods and losing weight, I have put my diabetes into remission. This required a massive lifestyle and mindset change. I had to remind myself that I mattered, that my health mattered, that my body mattered.



Shivali
Diagnosed with
type 2 diabetes in 2018

Get your minerals and vitamins from food

Mineral and vitamin supplements won't help you manage your diabetes. Unless you've been told to take something by your healthcare team, like folic acid if you're pregnant, then you don't need them.

Some supplements can affect your medications or make diabetes complications, like kidney disease, worse. It's much better to get your nutrients from eating a range of foods.

Don't bother with 'diabetic' food

It's now against the law for food to be marketed as 'diabetic'. It doesn't have any special health benefits that you can't get from eating healthily, can have as many calories as similar foods and can affect your blood sugar levels. Plus, it may have a laxative effect.

Religious fasting

Fasting is an important part of many religions. But there are exceptions to this. People who are ill or have medical conditions do not have to fast. This includes people with diabetes. Speak to your religious leader if you have questions.

If you do choose to fast, consult your doctor or healthcare team beforehand, to make sure that you are able to look after yourself properly. If you treat your diabetes with certain medications such as insulin, there is also the risk of the blood sugar levels becoming too low or too high which can lead to diabetic ketoacidosis (DKA), a condition requiring hospital admission. There is more information on our website at diabetes.org.uk/t2-fasting

Carbohydrates

Our blood sugar levels are affected by the amount and type of carbs we eat. So, if you have diabetes you need to know the amount of carbs in your food and stick to the healthier ones.

How much?

We all need some carb foods in our diet and it's good to have some every day. How much you need depends on your age, activity levels and your health goals, for example if you're trying to lose weight or improve your blood sugar levels.

Remember, the total amount of carbs in a particular food has the most effect on your blood sugar levels after eating. So, making changes to the amount you eat will affect your blood sugar levels after eating. Speak to your healthcare team, or dietitian, to see if you need to cut down, change to healthier carbs or spread the amount you eat across the day better.

Low-carb diets

There are different types of low-carb diets and they generally mean reducing the total amount of carbs you have in a day to less than 130g. Low-carb diets aren't for everyone, but evidence shows they can help people with type 2 diabetes to manage their weight, their blood sugar levels and reduce their risk of heart disease in the short term.

If you decide to follow a low-carb diet, it's important to speak to your healthcare team for their guidance and support.

Your feelings about food and diabetes

Food can affect how we feel, just as how we feel can affect what you choose to eat. 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 lead to eating too much of the foods you find comforting.

What can help?

- Getting support for how you are feeling. This could be from your healthcare team, or by talking to family and friends or connecting with other people with diabetes. Read more about looking after your wellbeing on page 42.
- Download **My Food and Mood Diary** from diabetes.org.uk/t2-food-and-mood. This is a way to track what food you've eaten and the effect it could be having on your mood and your diabetes.
- Get more tips to help you with your relationship with food on our website at diabetes.org.uk/t2-emotions-food

Explaining food and diabetes to other people

It can be difficult to tell people that you have diabetes and how this may affect the food choices you make, especially if you are eating out or eating with friends and family. Pick a good moment to talk to them about your diabetes. If it helps, you could show them some Diabetes UK leaflets.

There are lots of ideas for healthy eating for the whole family on our website at diabetes.org.uk/t2-enjoy-food



“

Before my diagnosis I ate lots of processed meats, fast food, sugary drinks and sweets. My current food habits are a great help in managing type 2 diabetes and they're better for me. I even have room for the occasional sweet treat.

”

Skids

Diagnosed with type 2 diabetes age 46



Exercise

You can also help to manage your type 2 diabetes by being more active.

Exercise doesn't mean you have to join the gym. Some of the benefits of moving more are:

- It helps your body use insulin better.
- It helps you look after your blood pressure. High blood pressure means you're more at risk of diabetes complications.
- It helps you to improve your cholesterol.
- It helps you maintain a healthy weight and keep weight off after you've lost it.
- It gives you energy and get a good night's sleep.
- It helps your joints and flexibility.
- It helps your mood. Exercise releases 'happy hormones' called endorphins.
- It helps to reduce stress levels.
- It helps you to improve your HbA1c levels.

Being active can even help some people on their type 2 diabetes remission journey. See page 20.

Where to start?

Start with what feels realistic for you. For example, you could go for a walk around the block, play a sport in the garden, do a gentle online exercise class, cycle on flat ground or go for a swim. Why not join a local group or class to help you increase your activity levels? Ask your GP or healthcare team about exercise on prescription, where a tailored set of exercises can be prescribed for you.

Even moving a little more makes a big difference. Walking could be the best for you as you can do it anywhere, any time and it's free.



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.



Rohit

Diagnosed with type 2 diabetes in 2003

It's also easier on joints and suitable for all levels of fitness. If walking is not right for you, you could start with some chair-based exercises to get your body moving.



How much activity to aim for

Aim to be physically active every day. Do at least 150 minutes of moderate intensity activity, where you're breathing a bit faster but you can still talk, or 75 minutes of vigorous activity, where you're breathing much faster and it's difficult to talk, across the 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.

Before you start

Check with your healthcare team before you start any new activities. Especially if you have any diabetes complications or take medications that increase the risk of hypos. Ask them if you should be testing your blood sugar levels more often or if you should start testing.

Check if you have any conditions that mean you should be careful, like high blood pressure, angina, osteoporosis or asthma.

While you're exercising

Drink fluids regularly.

You may need to adjust your diabetes medication and how much carbohydrate you eat. If you're not sure, contact your healthcare team.

We've got more information on how to get moving, including ideas to get started and a journal to help you stay on track, available in

Your guide to moving more.

Order a free copy from our online shop at diabetes.org.uk/t2-move-more

YOUR CARE

Staying well with diabetes

You're entitled to certain checks, tests and services to help you manage your diabetes and stay healthy. You might know this as your annual review, but some of these don't always happen every year. Having these diabetes checks helps you reduce your risk of serious diabetes complications. If you think you are not getting all these checks, speak to someone in your healthcare team.

The care you receive may have been affected by the coronavirus pandemic. Your healthcare team are still there for you and it's important to get in touch with them if you are worried about anything or think you may have missed one of your regular checks.

Know your blood sugar levels

You need to have your average blood sugar levels checked at least once a year. This is called an HbA1c blood test. You may need it checked every three or six months depending on what's happening with your

“

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?

”

Tony

Diagnosed with type 2 diabetes 13 years ago

diabetes. Your level should usually be 48mmol/mol or below but some people will have a higher target. Your target depends on how you treat your diabetes and your individual situation.

Know your blood pressure

You should have your blood pressure measured at least once a year, or more often for some people. It should usually be under 140/80mmHg.

But if you have problems with your eyes, kidneys or have had a stroke, it should usually be below 130/80mmHg. Your healthcare team will agree a personal target for you.

Know your cholesterol

You should have your cholesterol, also known as blood fats, checked at least once a year. Your healthcare team will tell you what the results mean and if you need to try and bring it down. There are three main types of cholesterol, called HDL (good cholesterol), LDL (bad cholesterol) and triglycerides. If your levels of LDL and triglycerides become too high and your HDL levels become too low, you are at increased risk of developing heart problems.

Look after your eyes

You'll be invited to an eye screening appointment called a retinal screening at least once every two years. This checks for signs of damage to your eyes. A special digital camera takes a photograph of the back of your eyes 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 at the opticians. If you notice any changes in your sight at any time, you must contact your doctor or optometrist.

Check your feet and legs

The skin, circulation and nerves in 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 checked and following some simple tips for healthy feet on page 52.

Get your kidneys checked

There are two tests for kidney function that 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.

Know your weight

If you are living with obesity or overweight, one of the best things you can do is get support to lose some weight. This might be from your GP surgery, a dietitian or local weight management service. Working with your healthcare team to set an achievable and realistic weight loss target is important. Knowing your BMI and waist measurement helps you to know whether your weight is in the healthy range. See page 18 for more on how to manage your weight.

Take control of your diet

Eating healthy food helps to manage your diabetes and reduce the risk of complications. Because you have diabetes, you're entitled to advice from a dietitian. So ask your doctor or nurse for a referral if you need some help.

Go to a group education course

A group education course will help you learn everything you need to know about diabetes. This includes courses called DESMOND and X-PERT. You should be offered a diabetes education course in your area when you're first diagnosed. See page 38 for more information.

Book your free flu vaccine

People with diabetes are at greater risk of severe illness if they get flu. You should also be given a personal care plan telling you what to do if you are ill. It's also really important to get your coronavirus vaccine and boosters when you're invited.

Support to help you manage your diabetes

The type of support you need might change over time. But these things can help you to manage your diabetes and stay well.

Talk about how you're feeling

It can be hard living with diabetes and it might affect how you feel. Talk to your healthcare team about any worries and, if needed, ask for specialist support.

Know your healthcare team

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.

Get good care in hospital

If you have to stay in hospital, whether it's for your diabetes or for another reason, you're entitled to high-quality care from specialist healthcare professionals. You can ask to see the diabetes inpatient team while you are in hospital.

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 your medication. This might be difficult to talk about but your healthcare team is there to give you the support, advice or treatment you need.

Stop smoking

Diabetes increases your risk of heart disease and stroke, and smoking increases this risk even more. There's lots of support available to help you quit and you're more likely to be successful using a NHS stop smoking service.

Get information and specialist care if you're planning to have a baby

Your diabetes should be monitored very closely by specialist healthcare professionals at every stage of pregnancy. This includes planning to have a baby. Speak to your diabetes team if you are thinking about having a baby.



Even if you don't get contacted, ring up and say 'I need a blood test and annual review'. Use your practice nurses' name, 'my nurse says I need a blood test.' Take a little bit of control for yourself.



Paul
Diagnosed with
type 2 diabetes
17 years ago

Getting the most out of your appointments

It's really important you go to all your appointments. This will help you know how well your diabetes is being managed and take control of your own health.

Tips for appointments:

- Before an appointment think about what you need to know and what questions you have.
- Have a pen and paper or your phone handy to write any notes.
- Check if you can bring someone with you or if someone can listen in if it is a telephone or video call. They can help remember what has been said.
- Ask who you should contact if you have more questions.
- Ask if there's any support available in your local area.
- Make a plan with your healthcare professional about what should happen next.

Your healthcare team

How diabetes care is managed can vary from one GP surgery to another and it's not the same in all parts of the country. You may have appointments with different healthcare professionals from your GP surgery team such as a practice nurse or healthcare assistant as well as a GP. You may go to a diabetes clinic.

Knowing which health professional to contact and when can make a big difference to how you manage your diabetes. You don't have to wait until your booked appointments, it's about knowing what to do between appointments too.

GP – The doctor in charge of your care and treatment.

Practice nurse – A nurse from your GP surgery may support your diabetes care, depending on their specialist knowledge.

Diabetes specialist nurse (DSN) – These nurses specialise in working with people who have diabetes. They give support and advice between appointments with things like blood sugar checks and adjusting your medication.

They also usually help run patient diabetes group education like DESMOND, see page 38. You may not need to see a DSN, it depends on your treatment and personal situation.

Registered dietitian – An expert in food and nutrition who helps you eat well. You should see a registered dietitian when you're first diagnosed and have regular reviews with them.

Registered podiatrist – They help check and manage any problems with your legs and feet related to diabetes.

Ophthalmologist – A doctor specialising in eyes. They will look after you if you have any eye problems.

Eye screener – They will do your retinal screening. See page 52.

Pharmacist – A pharmacist at your pharmacy or chemist can give you medicines and supplies on prescription, and review your medication.

Psychologist – They can provide emotional support, if you're experiencing emotional difficulties or you're worried about your diabetes.

Team member	Name and contact details	When do I see them?



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 managed is so vital.

Rohit
Diagnosed with type 2 diabetes in 2003



Learning more

Knowing about diabetes is key to managing your diabetes

Having type 2 diabetes doesn't have to rule your life. It can feel overwhelming, but no matter how long since your diagnosis, you can benefit from support and information. It'll help you manage your diabetes, so it's easier to

live with and reduces your risk of developing complications.

Ask your doctor or nurse about a free diabetes group education course.

People who go on these courses feel more confident about managing their diabetes, making healthier food choices, looking after themselves and meeting other people with diabetes.

Examples of courses for type 2 diabetes are:

- DESMOND, which stands for Diabetes Education and Self-Management for Ongoing and Newly Diagnosed. Usually lasts for a day or two half-days.
- X-PERT has six weekly sessions.

Both courses are friendly and informal, they are usually face-to-face sessions but may be run virtually, for example over video call.

There may be other courses in your local area.

What will happen on a course?

Trained healthcare professionals will give you diabetes and lifestyle information and the practical skills you need to self-manage your diabetes. You'll learn about diabetes and glucose, health changes, monitoring and medications, and how to make good food choices and stay active.

You may need to take time off work for the course. Ask your course provider or healthcare team for a letter to give to your employer.

More advice

For more advice, go to diabetes.org.uk/t2-employment

Our Learning Zone can help you manage your diabetes with confidence. Clinically trusted advice, tailored to you and based on real experiences – whenever you need it. Visit diabetes.org.uk/t2-learning-zone for more information.



LIVE WELL WITH DIABETES

Become a member of Diabetes UK



Become a member and get the latest news and expert advice for people living with diabetes – plus exercise tips and nutritious recipes to help you stay healthy at home.



Join us today for just £3 a month, visit diabetes.org.uk/become-member or call **0345 123 2399**



DiABETES UK
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EVERYDAY LIFE WITH TYPE 2 DIABETES

Coping with diabetes

Whether you've just been diagnosed or you've lived with diabetes for a long time, you may need support with your emotional wellbeing. Perhaps you feel stressed, low, or burnt out. The people around you can feel all of this too. Whatever you're feeling, you are not alone.

Type 2 diabetes is a serious condition, which is lifelong for many people. Changing what you eat, trying to do more exercise or taking medication can feel daunting. But many people with type 2 diabetes say that they get used to these changes and find balance in their life.

Emotions

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

Everyone is different and how you and your family cope with your diabetes diagnosis will vary.

One day you might feel positive about managing your condition and the next you feel less motivated.

But you don't need to go through this alone. Getting the emotional support you need is just as important as any other part of your treatment.

Stress

Stress doesn't cause diabetes but it can affect your blood sugar levels and how you look after your condition. Having diabetes to manage on top of life's normal ups and downs can itself be stressful. It's not always easy to live with and this can also feel harder when many people don't understand it.

Find out more about coping with stress at diabetes.org.uk/t2-stress



Looking after your wellbeing

After diagnosis, many people find their emotions settle down and they feel better in a few months. For some people these difficult feelings stick around.

There are some simple steps you can take to look after your wellbeing and reduce stress:

Connect with others living with diabetes

- Join a local Diabetes UK group to meet other people who live with diabetes and talk about your experiences. Find out more at diabetes.org.uk/t2-groups
- Get involved with Diabetes UK's online communities on Facebook, Twitter, Instagram, YouTube and LinkedIn. Go to diabetes.org.uk/t2-online-communities for more details.

Join Diabetes UK's online support forum at diabetes.org.uk/t2-forum to find tips, advice and emotional support and be part of a welcoming community.

Take care of yourself

Try and get a balance between looking after yourself without putting too much pressure on yourself to do everything perfectly. Making time to rest and unwind, can also help reduce stress. You could try relaxation exercises, massage or meditation.

Talk to someone

Talking to people you trust about how you feel can really help.

And we're here to help.

For more details of all the ways we can support you, go to diabetes.org.uk/t2-how-we-help

Depression

Depression is a serious condition but it can be treated. Symptoms of depression include feeling sad or down for more than two weeks, lack of interest and pleasure in your normal activities and other symptoms such as problems

sleeping, lack of energy and difficulty concentrating. If you are experiencing any of these symptoms, talk to your GP or healthcare team. There are different ways that people manage or treat depression. Your doctor may advise you to talk to a professional, recommend medication or point you towards Cognitive Behavioural Therapy. Getting support from family or friends or other people who have had similar experiences may also help.

Support for family and carers

Most things are easier to face with help from friends and family, but diabetes can put a strain on relationships. It can help to listen to, and communicate with, everyone in the family including children.

Sometimes it can be hard supporting a person with diabetes, even if it's your partner, child or close family member. You could be worried about them or trying hard to encourage them to make lifestyle changes.

You may need support for your emotions as well. Remember, all of Diabetes UK's support services are also there for you.

If you are working, you may need time off to support someone with diabetes. Find out your employer's policy on care leave. Talk to your manager about the condition and how you're helping, so they understand how important it is. Discuss options for flexible working if you need to give long-term support.

Fertility and pregnancy

Most women with diabetes have a healthy baby. But planning for pregnancy when you have diabetes is really important. Having diabetes means that you and your baby are more at risk of serious health complications during pregnancy and childbirth. The good news is that by planning ahead and getting support from your GP and diabetes team, you can really reduce the risks involved. So you're more likely to enjoy a healthy pregnancy and give birth to a healthy baby.

These tips will help you plan for a healthy pregnancy:

- Keep using effective contraception until you have discussed trying for baby with your healthcare team.
- Set an individual blood sugar level target with your healthcare team and ask for support to keep on track.
- Check what medication you are taking as some aren't safe to take during pregnancy. Have a medication review with your GP.
- Take folic acid every day. You need a prescription for high dose folic acid (5mg).
- It's really important to have eye screening and tests for your kidneys before stopping contraception.
- Start making healthy lifestyle changes such as eating healthy, reducing alcohol, quitting smoking and being active.

For more on diabetes and pregnancy, including tips to help you start to prepare for a healthy pregnancy and managing diabetes during pregnancy, go to diabetes.org.uk/t2-pregnancy

Illness

When you have diabetes, it's important to know how to cope when you're unwell, especially if you have to go into hospital.

Being ill can cause problems with your diabetes management, and this can make your recovery from the illness more complicated. You need to know what to do to keep your blood sugar levels as close to target as possible. Some people will know these as sick day rules.

How being ill can affect your diabetes

Illness and infections can raise your blood sugar levels. As part of the body's defence mechanism for fighting illness and infection, more sugar is released into the blood. This can happen even if you're off your food or eating less than usual.

People who don't have diabetes just produce more insulin to cope.

But when you've got diabetes, your body can't always do this. The symptoms of diabetes can add to those of the original illness or infection and make it worse.

Feeling or being sick, or having diarrhoea can make your blood sugar levels drop, because you're not absorbing food as usual.

Being dehydrated when you have diabetes

Dehydration means your body loses more fluids than you take in. Having a temperature or being sick can lead to dehydration. In some cases, severe dehydration and very high blood sugar levels can mean that you need to go into hospital.

So it's important to be prepared and follow our advice on coping when you're sick. You might want to give this information to a friend or family member, so they can help you if you get sick.

Managing your diabetes when you're sick – your sick day rules:

- Don't panic, contact your healthcare team who will help you if you have any queries or if you are unsure about what to do.
- Talk to your healthcare team about your medications. You can normally keep taking your diabetes medications, even if you don't feel like eating. But there are some medicines that you shouldn't take as much of or stop taking altogether.
- If you check your blood sugar at home, you'll probably need to do so more often, at least every four hours, including during the night. If you don't test your blood sugar levels at home, be aware of the signs of a hyper.
- Drink fluids, have plenty of unsweetened drinks and eat little and often.
- If you take a certain type of diabetes tablet called SGLT2i, sometimes called gliflozins, and become unwell, you should stop taking these. This is because they can increase your risk of DKA when you're ill. You need to check your ketones and your blood sugars, if you've been told

to do this and have the kit, and speak to your healthcare team.

- Keep eating or drinking. If you can't keep food down, try snacks or drinks with carbohydrates in to give you energy. Try to sip sugary drinks, like fruit juice or non-diet cola or lemonade, or suck on glucose tablets or sweets like jelly beans. Letting fizzy drinks go flat may help you keep them down. If you're vomiting, or not able to keep fluids down, get medical help as soon as possible.

Steroids

Steroids are a type of medicine used to treat conditions such as Addison's disease, severe asthma, rheumatoid arthritis, lupus and coronavirus. If you have diabetes, taking high doses of steroids for periods of time can make your blood sugar levels rise. This is called steroid-induced hyperglycaemia. Your doctor or nurse will talk to you about this. They may ask you to change how you manage your diabetes, so that you can keep your blood sugar levels within your target range.

Find out more at diabetes.org.uk/t2-illness

Work

Diabetes shouldn't affect your chances of getting or keeping a job. This information applies to you whatever stage you are at, whether you are looking for your first job or you're close to retirement.

Your rights at work

As someone living with diabetes in England, Scotland or Wales, your rights at work are set out in the Equality Act 2010. If you live in Northern Ireland, they are in the Disability Discrimination Act 1995. You might not think of your diabetes as a disability, but you are protected by these laws.

Your employer may need to make reasonable adjustments so you can do your job. For example allowing you to have your lunch break at the same time every day.

Applying for jobs

For most jobs, you don't legally have to tell an employer you have diabetes. The Equality Act means it is against the law for them to ask about your health before offering you work.

But telling them about your diabetes shouldn't affect your application. Any information you give them must be kept separate and confidential.

Telling people you work with

You could show your colleagues or employer our booklet **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 diabetes.org.uk/t2-work-rights

Find out more

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

Download the **Employment Support pack** at diabetes.org.uk/t2-work-rights

Travel

Plan and prepare before you travel, so you can avoid any problems.

Things to check before you travel:

- Carry your diabetes ID and a letter from your GP. Both of these should say you have diabetes, the medication you need to treat it 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 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, and tell them you have diabetes when taking out the policy.
You could let the airline, hotel or other staff know you have diabetes in case you become unwell during your journey or stay.

- Check the UK government website gov.uk or TravelHealthPro website for the latest rules on travelling and travel health guidance: travelhealthpro.org.uk
- As the UK has left the EU (European Union), there are some changes to rules when you travel in Europe. Use the Brexit checker gov.uk/transition to see if there are things you need to check or change before you travel.

Tips for packing:

1. Split your diabetes supplies in separate bags.
2. If flying, keep diabetes supplies in your hand luggage along with a letter from your healthcare team, 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.

Take a look at our guide to travelling when you have diabetes for lots more information, including travel insurance at diabetes.org.uk/t2-travel

Driving

Most people with diabetes can hold a driving licence and can carry on driving.

But your driver's licence might be affected if you take certain medications. There are two main things about diabetes that can affect your ability to drive safely:

1. If how you treat your diabetes means you're at risk of having a hypo (where your blood sugar drops below 4mmol/l).
2. If you develop diabetes complications that make it harder for you to drive, like problems with your eyes (retinopathy) or nerve damage (neuropathy).

If these things affect you, you need to know what the rules are and what you need to tell your local driver and licensing agency. Find out more about the rules on our website at diabetes.org.uk/t2-driving

COMPLICATIONS

High blood sugar levels can seriously damage parts of your body, including your feet, eyes, nerves, heart and kidneys. These are called the complications of diabetes.



This can be frightening to read about, but the good news is that you can take action to prevent or delay many of these problems.

People with type 2 diabetes are often diagnosed after they've had it 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.

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.

There are a lot of different things you can do to lower your risk of complications. Everything you do, however small, will make a difference.

Here are the key things that will help reduce risk of all complications:

Manage your diabetes

Keeping your HbA1c within the target range set by your healthcare team is really important for reducing your risk of complications.

A high HbA1c means you have too much sugar in your blood. If your blood sugar levels are rising, talk to your doctor. Your treatment may need to change to get your HbA1c in target. It's not just about your HbA1c, managing your blood fats and blood pressure are important too.

Stop smoking

Smoking makes it harder for blood to flow around your body to places like your heart and your feet. If you smoke, then stopping is a key part of reducing 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. Ask to see a dietitian if you'd like extra help to eat healthily.

Keep active

Doing more physical activity also helps to manage your HbA1c, blood pressure and blood fats. If you struggle to get about, there are still ways you can keep active. For tips on moving more, see page 29.

Go to all of your appointments

Everyone with diabetes is entitled to a series of test and checks to monitor their diabetes, look out for any problems and see if any further support is needed. Making sure you get all of them will mean you know how you're doing and what you need to be aware of.

Find out more about complications and ways to reduce your risk on our website at diabetes.org.uk/t2-complications

Eye problems

What happens?

Some people develop an eye complication called diabetic retinopathy. This is where high blood sugar levels and high blood pressure damage the blood vessels at back of the eye. If you don't get this problem treated in time, it can lead to sight loss.

Your healthcare team will talk to you about your treatment options if you do develop eye problems. You can prevent them from getting worse if they're spotted early enough.

What you can do

Go to your eye screening appointments when you're invited.

Diabetic retinopathy can become advanced before it starts affecting your sight. It's important to go to your regular eye screening appointments, so you can get the right treatment in time.

Be aware of any changes to your eyesight and make an appointment with your doctor immediately.

Treatment

If you've been told you have early stage retinopathy, there are lots of things you can do to delay or prevent it from progressing. If it's more advanced, your healthcare team will talk to you about the different treatment options. Treatments for advanced retinopathy include laser treatment, eye injections, steroids and eye surgery. Some of these treatments may sound daunting, but the treatment is so important to save your eyesight.

Find out more at diabetes.org.uk/t2-eyes

Your feet

What happens?

Having diabetes means you're at much greater risk of developing foot problems.

This is because raised blood sugars, blood fats and blood pressure can damage the feeling in your feet.

It can also affect your circulation, which can lead to you getting less blood supply to your feet. Without

a good blood supply, you may have problems with cuts and sores healing. You may also get cramps and pain in your legs or feet.

If you don't get these problems treated, they could lead to foot ulcers, infections and, at worst, you may need an amputation. But most foot problems can be prevented with good, regular footcare.

What you can do

Go for your foot check

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

To find out more about your foot check, go to diabetes.org.uk/t2-foot-check

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.

Cut your nails carefully

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

This stops your feet getting too dry and cracking, which can lead to infection. Speak to your healthcare team about which cream is best for you.

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.

Know what to do and who to call

If you have any problems with your feet, call your GP surgery, foot specialist or an out-of-hours service.

Find out more about looking after your feet at diabetes.org.uk/t2-feet

Treatment

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

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.

Nerve damage (peripheral neuropathy)

What happens?

Over time, high blood sugar levels can damage the small blood vessels that supply the nerves in your body. This stops essential nutrients reaching the nerves. As a result, the nerve fibres can become damaged, and they may disappear.

This can cause problems in many different parts of your body, depending on the type of nerve affected. Common symptoms can include leg pain, muscle weakness or numbness and tingling in your feet or hands.

There are different types of peripheral neuropathy. It can affect nerves in the feet and hands, nerves that control movement, or nerves that control things like bladder control and digestion.

What you can do

Keeping your blood sugar levels, blood fats and blood pressure within your target range will help protect the blood vessels that supply your nerves. Speak to your diabetes healthcare team for advice if you think you're developing any signs of neuropathy.

There are many treatments available to help with the symptoms caused by neuropathy. Find out more at diabetes.org.uk/t2-nerves

Kidney problems

What happens?

Kidney damage caused by diabetes is called diabetic nephropathy. It develops slowly, over many years.

But there's a lot you can do to reduce your risk. If spotted early enough, diabetic nephropathy can also be slowed down with treatment.

What is kidney disease?

One of the main jobs of your kidneys is to filter your blood. They get rid of extra fluid and waste products from your body through your urine.

High blood sugar levels and high blood pressure can cause your kidneys to leak and not work as well. You may not have symptoms in the early stages of kidney disease. This is why it's so important to have the tests for kidney disease every year, as it can be spotted early and slowed down with treatment.

If kidney disease progresses, you could notice symptoms like:

- swollen ankles, feet and hands
- blood in your pee (urine)
- feeling really tired
- being short of breath
- feeling sick.

You may be feeling like this because your kidneys are struggling to clear extra fluid and waste from your body.

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.

What you can do

You should have a urine test and a blood test for kidney disease as part of your annual review.

Managing blood pressure can help stop kidney disease from getting worse. You may be given tablets, such as ACE inhibitors or ARBs, to help with this.

Treatment

The type of treatment you need will depend on the stage of kidney disease.

A registered dietitian can help you with the changes to your diet and you may have to avoid certain foods.

If you do develop late-stage kidney disease and your kidneys stop working, your treatment options include dialysis or a kidney transplant. The good news is, as treatments and early diagnosis continue to improve, fewer people will go on to develop late-stage kidney disease.



Heart attack and stroke

What happens?

When you have diabetes, you're more at risk of heart disease.

This is also called cardiovascular disease or coronary disease, and it can lead to heart attacks and strokes.

This is because high blood sugars, blood fats and blood pressure over a long period of time can damage the heart and blood vessels.

What you can do

Follow the healthy lifestyle advice on page 21. It's also important to get your HbA1c, blood pressure and blood fat levels checked at least once a year.

You may be able to take medicines to help protect your heart by reducing high blood pressure or blood fats. You may be able to start taking them before a problem starts.

If you already have heart disease, you might need a procedure or surgery to help reduce the chance of heart attack or stroke.

Find out more at diabetes.org.uk/t2-heart

Sex and sexual dysfunction

Sex can be an important part of our lives. When we are unhappy with our sex life, it can affect our wellbeing and closest relationships.

People with diabetes are more at risk of sexual problems. Having high blood sugar levels can damage your blood vessels and nerves, including the ones that supply your sexual organs. This can restrict the amount of blood flowing to your sexual organs, so you can lose some feeling. This could mean you have difficulties with feeling like you want to have sex, physically and emotionally.

Lots of things can affect your interest in sex (your libido or sex drive). Sometimes diabetes can lower your libido. But being tired, depressed and having low self-esteem can all affect how much you feel like having sex, as well as any medication you're taking, or any treatment you've had in the past.

It's not easy coping with all these feelings and emotions. But there's support out there. Talking to someone, like our helpline advisors, about what's going on can be the first step.

You can talk about sexual problems with a healthcare professional as part of your care. They should be able to provide you with support or refer you onto a specialist if needed.

Get more information and support about sex, dating and relationships at diabetes.org.uk/t2-sex

Women

Sexual problems are more common in women with diabetes. This may be caused by the diabetes itself, the medication or emotional and lifestyle factors.

Diabetes can cause vaginal dryness, which can cause painful sex. There are lots of different lubricants that can help with vaginal dryness, which you can buy from your local chemist or online and should help make sex less painful.

There's lots of support available if you need more advice or want to talk it through. You're not alone.

Men

The most common type of sexual problem in men is erectile dysfunction (sometimes known as impotence). This is when you can't get or keep an erection – early signs could be if you start to lose your morning erection.

There can be several reasons for this, such as limited blood flow, nerve damage (neuropathy) and damaged blood vessels. It can also be down to medication or just how you're feeling at the time.

You can get treatment for this with medication like Viagra and Cialis, but talk to your healthcare team before taking these, as they can cause heart problems.

You could also think about therapy or counselling to help you manage erectile dysfunction. It can be a useful tool, whatever the cause of the problem. And we've got support to help you too, you're not alone.

Thrush and urine infections

These are also more common in men and women with diabetes if your blood sugars are high. These can make sex uncomfortable.

There is more advice about preventing and treating these infections on our website at diabetes.org.uk/t2-complications

OTHER MEDICATIONS

Prandial glucose regulators

The generic names for these medications are repaglinide and nateglinide. You take these medications about half an hour before meals, up to three times a day. They are similar to sulphonylureas, but work faster to stimulate insulin production and don't last long. If you miss a meal, don't take them. They could cause hypos.

Incretin mimetics (GLP-1 analogues)

This injection acts like a type of hormone called incretin, which help you make more insulin, reduce the amount of sugar the liver produces and slows digestion speed. They also reduce appetite.

You may have an injection daily, twice-daily or once a week. There are different brands available including Byetta®, Bydureon®, and Victoza®.

DPP-4 inhibitors (gliptins)

These tablets stop the enzyme DPP-4 from destroying incretins. Incretins help the body make more insulin when needed and bring down sugar production in the liver when it's not needed.

The tablets are taken once or twice a day with or without food, it depends on the type. There are lots of different brands available including Januvia®, Trajenta® and Galvus®.

SGLT2 inhibitors

This medication reduces the amount of sugar your kidneys absorb and passes it out in the urine, meaning there's less in your blood.

You will take the tablets once a day, with or without food. Your urine will test positive for sugar because of the way they work.

Brands include Forxiga®, Invokana®, Jardiance®, Steglatro®.

Alpha glucosidase inhibitors

The generic name for this tablet is acarbose. This tablet slows down starchy food absorption after a meal. This means your blood sugar levels won't rise as fast.

Thiazolidinediones

The generic name for these tablets is pioglitazone. These tablets help your body use natural insulin better and protect the cells in the pancreas so you could produce insulin for longer.

Usually taken once or twice a day with or without food.

GLOSSARY

Blood sugar levels

Also called blood glucose levels. A measure of how much sugar is in the blood.

BMI

Body mass index, which shows your weight in relation to your height.

Carbohydrate (carbs)

An important source of energy for the body, 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 diabetes care.

Diabetes specialist nurse (DSN)

A nurse with a special expertise in diabetes who will 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 will 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.

DKA (diabetic ketoacidosis)

A serious condition that occasionally affects people with type 2 diabetes. DKA happens when there is severe lack of insulin in the body, so the body can't use sugar for energy, and starts to use fat instead. When this happens, chemicals called ketones are released. If left unchecked, ketones can build up and make your blood become acidic.

Endocrinology

The study of medicine that relates to the endocrine system, which is the system that controls hormones.

Endocrinologists

Specially trained doctors who treat diseases related to hormones and hormone glands, such as diabetes.

Estimated glomerular filtration rate (glow-mehr-you-lar), or eGFR

A test to measure how well the kidneys are working.

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 blood test sample usually from your arm (but it could also be finger prick test). This measures your average 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 helping insulin to work better.

Millimoles per litre (mmol/l)

A measurement that expresses the amount of glucose in the blood.

Monofilament

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

Optometrist (op-tom-uh-trist)

A healthcare professional who examines your eyes and prescribes your glasses or contact lenses, often in a high street practice.

Ophthalmologist (op-thal-mol-a-jist)

A doctor who specialises in conditions that affect the eye. They'll be involved with your treatments for eye complications, 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 will check for and manage problems related to diabetes.

Practice nurse

A nurse based at your GP surgery who will 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 will 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 ARE WE

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.



This guide is FREE

If you need to get in touch with us, you can call: 0345 123 2399*, Monday to Friday, 9am to 6pm

Or, if you prefer, you can email helpline@diabetes.org.uk

If you're in Scotland call: 0141 212 8710*, Monday to Friday, 9am to 6pm. Email: helpline.scotland@diabetes.org.uk

As a charity, we rely on the generous donations of people like you to help us produce this vital information on living with diabetes.

To find out more about how you can help us, go to diabetes.org.uk/t2-get-involved

Or, to make a donation to support our work, go to diabetes.org.uk/t2-donate or send a donation via text.

Please text DUK to 70123 to donate £5 to Diabetes UK and help us do even more for people with diabetes.

You will be charged £5, plus one message at your standard network rate. Diabetes UK will receive 100%. Registered charity number England & Wales 215199 and Scotland SCO39136. If you wish to discuss this mobile payment, call 020 3282 7863.

By texting DUK to 70123, you are agreeing to us contacting you by phone and SMS to tell you more about our work and how you can support it (including financial support). **To give £5 without receiving further contact by phone and SMS, text DUK NO to 70123.**

You must obtain permission from the bill payer before sending a text message. Our diabetes information is available in print or you can download it as a PDF.

Go to diabetes.org.uk/t2-shop for more details.

Diabetes UK policy statements are always clearly identified as such.

DiABETES UK
KNOW DIABETES. FIGHT DIABETES.

QUESTIONS ABOUT DIABETES?

We're here to talk.

If you're looking for someone to speak to about living with diabetes, get in touch by calling or emailing our helpline. We're here 9am to 6pm, Monday to Friday.

Call **0345 123 2399***
Email helpline@diabetes.org.uk

*Calls to 0345 numbers cost no more than calls to geographic (01 and 02) numbers and must be included in inclusive minutes on mobile phones and discount schemes. Calls from landlines are typically charged between 2p and 10p per minute while calls from mobiles typically cost between 10p and 40p per minute. Calls from landlines and mobiles to 0345 numbers are included in free call packages. Calls may be recorded for quality and training purposes.

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GET IN TOUCH

Call **0345 123 2399**

Email **helpline@diabetes.org.uk**

Visit **diabetes.org.uk**

Search **Diabetes UK** on Facebook,
Twitter, YouTube and Instagram



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** or write to us at: Diabetes UK Helpline, Wells Lawrence House, 126 Back Church Lane, London E1 1FH

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Our information is correct at the time of publication. It's not a substitute for seeing a healthcare professional, and isn't intended to replace the advice given by your diabetes healthcare team.

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