

SPRING 2026 | ISSUE 310

DiABETES UK
KNOW DIABETES. FIGHT DIABETES.

BALANCE

The exclusive magazine
for Diabetes UK members

SPRING INTO ACTION

Ways to get active
outdoors

UNCERTAIN TIMES

When a
diagnosis
isn't easy



MAKE IT COUNT

9 checks
you need

One step ahead

How new treatment could delay
type 1 for Amy's daughter

TOGETHER TYPE 1

MEET THE PEOPLE WHO UNDERSTAND LIFE WITH TYPE 1 DIABETES

Together Type 1 is the community for you if you are aged 11-25 and live with type 1 diabetes. We have fun socials, discussions about things that matter to us, and find ways to make change happen! If you've got ideas, then we are all ears.

This is Youcef. Hear why he thinks Together Type 1 needs you.



Join the community at diabetes.org.uk/tt1



Welcome to your spring issue of Balance

In our first issue of 2026, we set our sights on new horizons as we strive to improve and change the lives of people living with diabetes.

Every year, we invest millions of pounds in research to enable scientists to push the boundaries of future treatments for diabetes, as well as to speed up progress towards a cure.

We wouldn't have made such great strides in research without your valued support. Your membership helped fund our ELSA study (EarLy Surveillance for Autoimmune diabetes), which identified our cover star Imogen was in the early, symptomless stages of type 1 diabetes. This set Imogen on a path towards immunotherapy treatment aiming to delay the progression of her diabetes. We look at what's next for our ELSA study. We also speak to Imogen's mum Amy about her hopes of giving her daughter extra insulin-free years.

On other pages, we embrace the power of family support when life with diabetes feels tough with tips on reaching out when you need to. Plus, we bring a touch of spring to your fitness routine.

Rachel Hardy
Senior Membership and
Retention Manager, Diabetes UK



Become a member
diabetes.org.uk/bal-member



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Future proofing: How Amy and her daughter Imogen hope to stay one step ahead of type 1



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Refresh your fitness: Turn over a new leaf and get active outdoors to make the most of spring



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Fakeaways: Our healthier versions of these go-to takeaways won't break the bank

Q: How do I amend my direct debit details for my membership?

A member of our Customer Care team can amend these details for you. Please call us on **0345 123 2399** or email us at:
helpline@diabetes.org.uk
with details relating to your direct debit.

Q: Where is my welcome pack?

If you have not received your welcome pack within 21 days of signing up, please contact us at:
helpline@diabetes.org.uk

Q: Do you provide alternative formats of Balance?

We provide large print, audio and digital formats of Balance. If you would prefer one of these formats, please email us:
helpline@diabetes.org.uk

FIND SUPPORT



Call our Helpline

Our confidential helpline is staffed by a team of highly trained advisors with counselling skills who have extensive knowledge of diabetes. Get in touch for answers, support, or just to talk. Call **0345 123 2399** 9am to 6pm weekdays or email **helpline@diabetes.org.uk**
In Scotland, call **0141 212 8710** or email **helpline.scotland@diabetes.org.uk**



Talk to people with diabetes

The Diabetes UK Support Forum is our online community where you can share experiences and get information and advice. Go to **forum.diabetes.org.uk**

To meet other people with diabetes in your local community, visit one of our local groups all over the UK.

For more details, go to **diabetes.org.uk/support-for-you**



Campaign

We campaign hard for people living with diabetes, but we can't do it without your help. Join our campaigning network and help influence care. **diabetes.org.uk/bal-voices**



Contact the Balance team

balance@diabetes.org.uk



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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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THE BULLETIN

The latest diabetes news, research and developments



Managing diabetes during Ramadan

➡ Whether you are fasting during Ramadan, or have decided not to, we have lots of resources and advice to support you. We've worked with the British Islamic Medical Association to produce videos, multilingual factsheets and an online guide.

Talk to your GP or diabetes specialist nurse if you have any concerns – they're there to help.

■ **Take me to the online resources:** diabetes.org.uk/bal-ramadan

■ **Ramadan in 2026 will run on or around Tuesday, 17 February for 29 or 30 days, ending with Eid al-Fitr, a religious holiday celebrated worldwide.**

One-stop shop for type 2 prevention

➡ In January, we launched a new section on the Diabetes UK website on type 2 prevention which brings together all our resources and information. It links to a new mini section on prediabetes and a page for women who have had gestational diabetes, as both these groups have a high risk of type 2 diabetes.

■ **For more information, visit:** diabetes.org.uk/prevention

Delivering diabetes care in a neighbourhood health service



➡ In its 10-year plan for improving the NHS, the Government pledged to create a neighbourhood health service that would prevent and treat ill health closer to where people live rather than in hospitals.

We've published a report, titled 'Delivering diabetes care in a neighbourhood health service', which lays out how a neighbourhood health service provides opportunities to improve diabetes care across England.

We know that one in five adults now live with prediabetes or diabetes, and these numbers continue to rise. The cost of diabetes complications makes up 60% of the total cost to the NHS of managing

and treating diabetes, but with the right care, treatment and support, many diabetes complications can be prevented.

We have spoken to healthcare professionals working to improve diabetes care in England to establish what the key steps would be for neighbourhood health services to deliver for people with diabetes.

Our report builds on local examples of neighbourhood care that are already delivering improvements in diabetes care and prevention and sets out key principles and next steps for local health services.

■ **Read our report at** diabetes.org.uk/bal-neighbourhood-health-service

NEWS IN NUMBERS

£4.2M

THE AMOUNT WE INVESTED into 21 new research projects in 2025



119

THE TOTAL NUMBER OF RESEARCH PROJECTS we're currently funding

189

THE NUMBER OF RESEARCHERS INVOLVED in the Type 1 Diabetes Grand Challenge

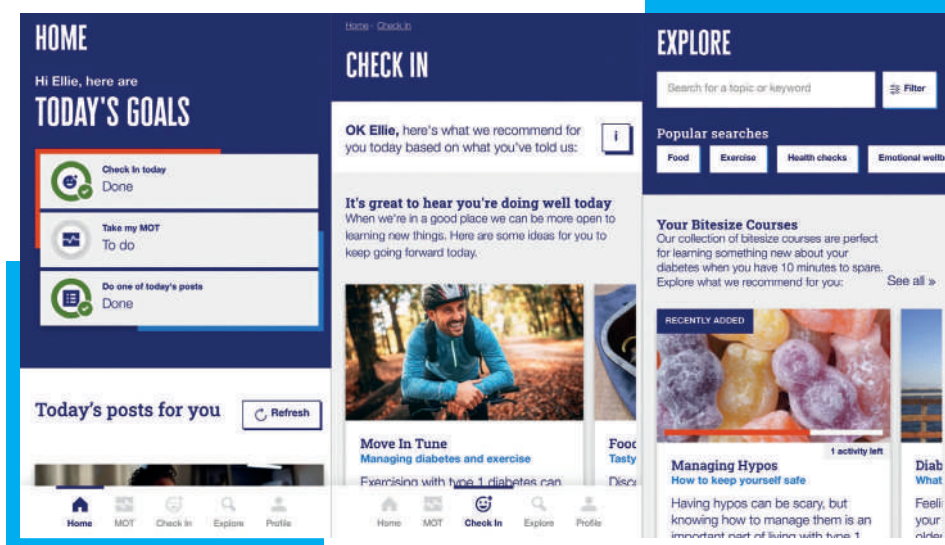
TYPE 1

49

THE NUMBER OF INSTITUTIONS ACROSS 8 COUNTRIES INVOLVED in the Type 1 Diabetes Grand Challenge



TYPE 1
DIABETES
GRAND
CHALLENGE



Have you used Learning Zone yet?

It's been a year since we launched our new Learning Zone, Diabetes UK's free, online education platform that helps you to live well with diabetes and manage it with confidence.

In the past 12 months, we've been busy adding new content, talking to the diabetes community and improving Learning Zone for everyone. So, whether you're an avid user or you've never used it before, why not sign in and see what we've been up to?

What is Learning Zone?

With over 200,000 users, Learning Zone is a source of trusted information from

Diabetes UK and offers clinically backed education, advice and support to complement the care you receive from your healthcare team.

Everything in Learning Zone is tailored to you and things like your type of diabetes, length of diagnosis and medication requirements, so you'll only ever get information that's important and relevant to you.

What can I expect when I sign in?

We now have 17 courses in Learning Zone on a range of topics – from food to exercise, emotional wellbeing to health checks, and travel to type 2 diabetes remission.

And, with some of our bite-sized courses taking as little as 10 minutes to complete, there's always time to learn something new.

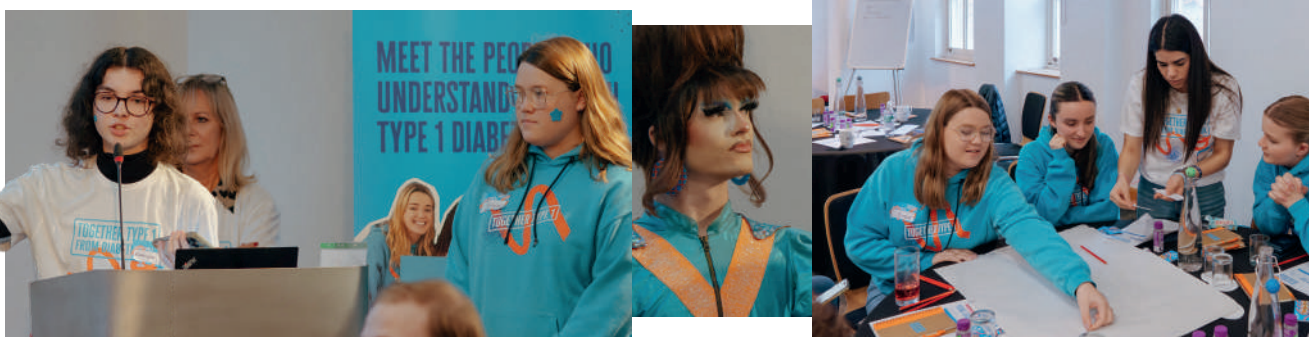
You'll also get your own:

- Personalised homepage feed – packed with over 200 tips, videos and polls.
- Check In – a place where you can quickly check in each day to keep track of your emotional wellbeing.
- Diabetes MOT – a questionnaire that provides you with a personal report on your diabetes management, with helpful advice and support recommendations.

And we'll be in touch with regular emails – whether that's to tell you about new content, provide seasonal advice, or keep you updated on our services – to support you every step of the way. We're adding new content all the time, so sign in today and start exploring at diabetes.org.uk/bal-learning-zone



Together Type 1 promises event mix in 2026!



➡ In November, over 70 Together Type 1 Young Leaders from across the UK met in Birmingham to take part in a Dragon's Den competition and pitch ideas for Together Type 1 events in 2026.

The assembled Young Leaders also took inspiration from RuPaul's Drag Race Star SALLY™, who created a special diabetes-themed outfit for the event. SALLY talked about their own experience of living with diabetes, some regrets and

some successes, and challenged the Young Leaders to follow their dreams.

The panel of Dragons included SALLY, Liam Eaglestone, CEO of the Steve Morgan Foundation which funds Together Type 1, and staff from Diabetes UK. The Dragons heard a range of innovative event ideas, from a type 1 retreat weekend to the diabetes-lympics!

"We will be taking many of these exciting ideas forward into our planning for next

year," said Iain French-Wilkie, Type 1 Services Programme Manager and Dragon.

"We want to create a mix of events that are meaningful for young people living with type 1 and we realised our Young Leaders community is perfectly placed to help us develop and deliver them."

■ **Sign up to stay informed about Together Type 1's programme of events at diabetes.org.uk/tt1 or follow us on Instagram @TogetherType1**

Fundraising feats

Stepping up for my son

Brian Harvey from Cornwall says his life was changed forever when his son, Joseph, was diagnosed with type 1 diabetes in 2018. "I knew nothing about diabetes and have learned so much over the years. The condition does not come and go. It's with him forever and he's continually monitoring his blood sugar levels, counting carbs, and has his insulin pump cannula and continuous glucose monitor (CGM) attached to him at all times. We're monitoring his blood sugar levels 24/7, and it can be a real grind for us all!"

After experiencing the relentlessness of diabetes, Brian decided to raise money for us by taking part in the One Million Step Challenge. "As an accountant, I'm sitting at my desk, in meetings or in the car for most of the day. I'm not a natural athlete, but I was determined to give it my best and raise as much money as possible for such a worthy charity." Brian received incredible support from his friends, family, and colleagues, which helped keep him motivated.

"I had a real sense of achievement and neither I nor the dog had felt fitter in a long time! I lost a few pounds and raised even more pounds for a charity, so overall a win-win!" Brian says.



"My main piece of advice for anyone taking part in the challenge would be to try and keep up with the daily steps of just under 11,000 from the start. If you fall behind, it might not be easy to catch up."

Brian initially set a fundraising target of £100 but has raised an amazing £5,485! "I was humbled by the level of support from my friends, family, and colleagues, and even some people who I didn't know who picked up on the challenge on social media. I thank every one of them!"

Congratulations, Brian, on your incredible achievement! You can find out more about our One Million Steps Challenge at diabetes.org.uk/bal-omsc

SPRING RAFFLE 2026

Enter our Golden Choice Spring Raffle before 1 May to win. Only £1 a ticket to enter with over £15,000 in prizes – including our £12,500 Golden Choice Prize! Every ticket you buy helps people living with diabetes.



■ Scan to enter now or go to raffle.diabetes.org.uk

You could be our Star Letter!

Read something you particularly enjoyed in Balance? Want to share your thoughts on an article? Or even tell us how much your membership means to you? Email us at balance@diabetes.org.uk to be in with a chance of having your letter printed in an issue and winning a £50 gift voucher!



Find your challenge!

We have an event for everyone in 2026, so whether you're a water baby, a runner at heart or are looking for a walk with purpose, get involved and find a fitter, healthier you this year.

- Swim22 – 22 March to 22 June
- Great North Run – 13 September
- London Bridges Wellness Walk – 27 September
- Royal Parks Half Marathon – 11 October
- Amsterdam Marathon and Half Marathon – 18 October
- Find your challenge at diabetes.org.uk/bal-fundraising

A class effort

Sean and Camilla live in Stockport and felt devastated when their three-year-old son, Ellery, was diagnosed with type 1 at 14 months old. "We were shocked and confused," said Sean and Camilla. "No one in our family has diabetes, and we had no understanding of what it meant." Ellery's pre-school chose to fundraise for Diabetes UK by taking part in our 62 Miles in October challenge to raise awareness and show care for him and anyone living with diabetes.

"The children completed 62 laps of their school garden over the month of October. Ellery loved it! It felt like a fun activity he was doing with all his friends at pre-school," said Sean and Camilla. "Ellery had a terrible stomach bug

during the month and was off school for a week. Managing his blood sugar levels during his illness was extremely challenging. But he successfully completed his last 22 laps in one go with his dad."

Ellery and his pre-school raised an amazing final total of £1,811. On why fundraising for Diabetes UK felt so important to them, Sean and Camilla said:

"Living with type 1 requires an estimated 100 to 300 extra decisions every single day.

"It is a constant state of vigilance. If raising awareness helps others grasp that reality, then the challenge has been worthwhile."

And in Ellery's own words: "We did a lot of walks at school, then people gave us money, and then we sent the money to the doctors, and the doctors can make them better."

Congratulations to Ellery and the staff and pupils at Brookside pre-school for their incredible effort!



"If raising awareness helps others grasp that reality, then the challenge has been worthwhile"

Are you getting your 9 essential care checks?

➔ Diabetes can cause complications that can become serious if not picked up and monitored or treated in the early stages. So regular diabetes health checks, sometimes called your yearly or annual review, are essential to reduce your risk of complications. The health checks you should be getting are:

1

HbA1c – your average blood sugar levels for the past three months



2

Cholesterol levels – how much fat is in your blood



3

Kidney function – a blood test to see how well your kidneys are working



4

A sample of your urine should be checked for signs of kidney disease



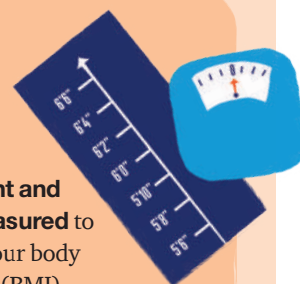
5

A foot check which may be done every one or two years if your last check showed no problems



6

Your weight and height measured to work out your body mass index (BMI)



7

Your blood pressure measured



8

If you smoke, you should be **offered support to stop**



9

A diabetic eye check – photos are taken of your eyes to see if there are any signs of diabetic eye disease (retinopathy).



BUT DATA SUGGESTS THAT NOT EVERYBODY IS GETTING ALL THE ESSENTIAL CHECKS THEY NEED.

During 2023-2024 only

53%

OF PEOPLE WITH DIABETES IN ENGLAND RECEIVED ALL 9 CHECKS.

And in Scotland, only

29%

OF PEOPLE LIVING WITH TYPE 1 AND 30% OF PEOPLE LIVING WITH TYPE 2 GOT ALL THEIRS.

There are many reasons why this is the case including anxiety about being told the worst-case scenario, fear of stigmatising attitudes and comments, and difficulties finding the time or a way to attend appointments. It's important that everyone living with diabetes gets these checks as they can reduce the risk of serious long-term complications. It can be difficult to access all your diabetes health checks, but there are some things that can make it easier.

➔ Find out more on our website at diabetes.org.uk/bal-care-to-expect

THE INSIDER

The latest diabetes health news, research and developments

Transforming type 1 diabetes research

Thanks to the Bukhman Foundation, we're supporting world-class research led by Dr Kasra Bahadori, at the University of Cambridge, to tackle a long-standing question around what triggers the development of type 1 diabetes. We spoke to Anastasia and Igor Bukhman, and Dr Bahadori to find out more about the research and the impact they hope it has



The Bukhman Foundation was set up in 2023 by Anastasia and Igor Bukhman to help improve lives by supporting medical research for type 1 diabetes and celebrating arts and culture. Last year, the Bukhman Foundation announced a historic £100 million pledge to fund groundbreaking research into new treatments and a cure for type 1 diabetes. We're thrilled to be partnering with the Foundation and to receive a gift of £300,000 from this pledge to support a research team, led by Dr Kasra Bahadori, at the University of Cambridge.

"We're thrilled to be partnering with the Foundation and to receive a gift of £300,000 from this pledge"

Anastasia and Igor say:

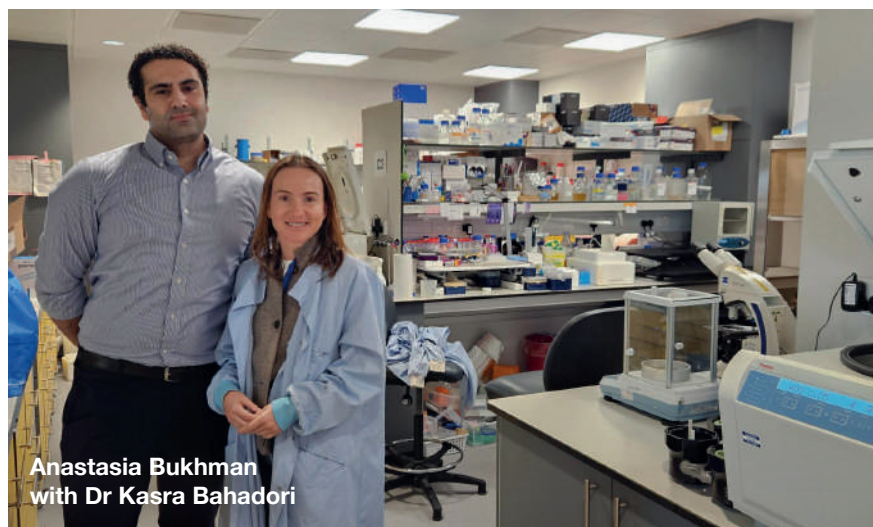
"Our connection to type 1 diabetes initially came from our parents, and then our daughter was diagnosed more than 10 years ago. As parents, you suddenly understand and experience the condition in a completely different light. You understand the constant decision-making, the anxiety, the

countless small adjustments that shape every day. It's impossible not to be inspired by the strength required to manage it by millions worldwide who are living with diabetes, but also their families.

We were inspired to invest in type 1 diabetes research because we're fortunate enough to be in a position where we can be philanthropic, but it's also because research breakthroughs in the last few years have been staggering. We're seeing advances in screening, prevention, and cell therapy that simply weren't imaginable a decade ago. The science is moving faster, different disciplines are beginning to collaborate in more meaningful ways, and for the first time it feels like we're on the cusp of change.

We're also keen to support practical advances, rather than just medical ones. Being parents to a child with type 1 diabetes affects the rhythm of your days – hospital visits, blood sugar checks during the day and night, multiple injections a day, comforting a three-year-old who doesn't like needles. Diabetes impacts daily life, and we want to support advances that will translate into tangible relief for families: fewer injections, fewer alarms, fewer worries.

The research we're supporting



Anastasia Bukhman
with Dr Kasra Bahadori

explores how viruses might trigger type 1 diabetes in at-risk children. This research is important because it deals with the root issue of why the autoimmune process begins in the first place and aims to understand the viral trigger in as much detail as possible. The insight generated by this research could be transformative, potentially developing ways to stop those auto-immune responses, and potentially preventing some cases of type 1 diabetes before they start.

We've recently announced the creation of the new Bukhman Centre for Research Excellence in Type 1 Diabetes at the University of Oxford. This centre will bring together immunologists, clinicians, engineers, and data scientists to accelerate new treatments. We're also proud to be supporting the T1D Fund, which is funded by philanthropic donors to create greater backing for early-stage companies developing breakthrough type 1 diabetes treatments.

In the short term, we hope our support helps ease the daily burden of type 1 diabetes. That could mean better early-warning systems, improved technologies, or more personalised approaches that help people manage their condition with less disruption to their lives.

In the longer term, our hope is that future generations might never have to experience type 1 diabetes in the way people do today. Whether that comes through prevention, new treatments, or even a cure. We're optimistic a cure is within reach because the

science, the technology, and the ambition are at an unprecedented point. Not only are cell therapies becoming viable, screening tools are becoming more accurate, and prevention strategies are showing real promise, but there's also the background of ever-increasing computer power and AI technologies.

A cure, or many cures, will not come tomorrow, but – for the first time – we feel that it's not a distant dream. And if our support, and the support of others, can help shorten the timeline even slightly, it will have been worth it."

Dr Kasra Bahadori says:

"I'm currently an academic clinician in

"This research is important because it deals with the root issue of why the autoimmune process begins in the first place"

training, working towards becoming a nephrologist (a kidney specialist). My medical background has always

shaped my research interests, and my transition into type 1 diabetes research came from seeing patients with long-standing type 1 who were facing kidney failure.

I was fascinated to learn that some of these patients, if they were fortunate enough to receive a simultaneous kidney and pancreas transplant, can occasionally develop type 1 diabetes again – even in their new pancreas. The immune system can essentially 're-attack' the transplanted pancreas. That really struck me; here was a condition we thought we understood, yet there was still so much we didn't know about what triggers it and

how it behaves at a fundamental level.

That curiosity is what drew me into research. I wanted to go back to the very beginning. To understand what causes type 1 diabetes in the first place, so that one day we might be able to stop it before it even starts.



Dr Kasra Bahadori



Anastasia Bukhman meeting Dr Bahadori and other members of the research team



Words: Lucy Evans. Photography: The Bukhman Foundation, Lucy Chambers, Diabetes UK

Igor and Anastasia Bukhman



The research my team and I are working on tackles a long-standing question in type 1 diabetes research: what triggers the condition in the first place? Our strongest evidence suggests that type 1 diabetes doesn't happen randomly, it's triggered by something in the environment. Although there are several suspects, the most compelling evidence points towards enterovirus infections – common viruses that most of us encounter in childhood. The Environmental Determinants of Diabetes in the Young study (TEDDY) has already been following children with a high genetic risk of type 1 diabetes from birth, collecting blood samples from multiple points in time – including before, during, and after viral infections. We can now investigate and provide answers on how and why these infections might play a role in the

development of type 1. and, one day, even treatments that could prevent type 1 diabetes from developing in children at higher risk.

Along the way, we're also exploring other fascinating questions, and we're currently working on turning some of these findings into scientific papers. Ultimately, I hope this work will pave the way for earlier diagnosis

As a nephrologist, I've had many conversations with adults living with type 1 diabetes who are now facing kidney complications. By the time I meet them, they've often been managing the condition for 20, 30, 40 years. What strikes me the most is how relentless type 1 diabetes is. It's not just the daily burden of blood sugar checks, insulin adjustments and hypo management; it's also the risk of

emerging complications. These are the conversations that have truly influenced my research interests.

Funding from Diabetes UK and The Bukhman Foundation is essential to my ability to undertake this research. It gives me protected time away from clinical practice to focus on understanding the causes of type 1 diabetes at a cellular level. Working at this level requires cutting-edge laboratory technology, powerful computing resources, and close collaboration with teams of colleagues across different disciplines.

The resources for this are substantial, and I'm very aware of the trust and investment that have been placed in me. I feel incredibly grateful to have the opportunity to contribute, to identify the causes of type 1 diabetes and, ultimately, to develop better ways to prevent and treat it. Major investments like this make it possible to tackle ambitious questions that simply couldn't be addressed without the long-term support of organisations like Diabetes UK and the Bukhman Foundation."

"Major investments like this make it possible to tackle ambitious questions we couldn't address without the support of organisations like Diabetes UK and the Bukhman Foundation"

National childhood type 1 screening is effective, ELSA shows

Our landmark ELSA study (EarLy Surveillance for Autoimmune diabetes) has shown that childhood screening for type 1 diabetes works, laying the groundwork for a UK-wide childhood screening programme. Building on this, we've launched the next phase of ELSA – with all children aged two to 17 years now eligible to take part



For too many families, their child's type 1 diabetes diagnosis happens in a sudden, frightening way. Over a quarter of children aren't diagnosed until they are in diabetic ketoacidosis (DKA), a potentially fatal condition that requires urgent hospital treatment.

But this doesn't have to be the case. Spotting type 1 diabetes early – before too many insulin-making cells have been destroyed or symptoms have developed – can dramatically reduce emergency diagnoses. It could also give children access to new immunotherapy treatments that can delay the need for insulin therapy for years.

Launched in 2022 and co-funded by Diabetes UK and Breakthrough T1D, ELSA is the first UK study of its kind that set out to test the feasibility of a screening programme to detect type 1 diabetes early. Children aged 3 to 13 years in the UK were eligible to take part. Professor Parth Narendran and his team at the University of Birmingham tested blood samples for autoantibodies – signs of the type 1 diabetes immune system attack that can appear years before symptoms and a typical clinical diagnosis.

The risk of type 1 rises sharply with the number of autoantibodies found.

Children without autoantibodies are unlikely to develop type 1 diabetes. Those with one autoantibody have a 15% chance of developing the condition within the next 10 years. While for children with two or more autoantibodies, it is almost certain they will progress to clinical type 1 diabetes and eventually need insulin therapy. This is known as early-stage type 1 diabetes.

ELSA's findings

The team analysed results from the first 17,283 children aged 3 to 13 years who had been screened for type 1 diabetes. They found:

- 75 had one autoantibody, signalling an increased future risk of type 1.
- 160 had two or more autoantibodies, but did not yet require insulin therapy, indicating early-stage type 1 diabetes.
- Seven were found to have undiagnosed type 1 diabetes with all needing to start insulin immediately.

Crucially, ELSA also revealed that families are willing and able to take part in type 1 diabetes screening. The study exceeded recruitment targets ahead of schedule. ELSA also demonstrated families without any

The ELSA study team at the University of Birmingham



Words: Faye Riley. Photography: Diabetes UK

prior connection to type 1 diabetes are also happy to take part. While children with a family history were more likely to take part, recruitment through schools, GP surgeries and community settings helped engage families with no prior connection to the condition. This matters, because the majority of children diagnosed with type 1 have no family history.

Most families chose to be screened with simple finger-prick blood tests done at home or through schools – a sign that screening can fit into everyday life, rather than adding stress or disruption. Return rates for test kits were comparable to other long-established NHS screening programmes, showing that this approach is both practical and acceptable.

ELSA also explored the emotional impact of screening. Understandably, many parents initially felt anxious when their child screened positive for autoantibodies. But the research found that education and ongoing monitoring and support, provided through ELSA, helped families feel informed and prepared for the eventual progression of type 1 diabetes, easing their anxiety.

Early detection can also make sure children can promptly start on insulin therapy as soon as they need to, reducing the chances of DKA.

Striking early to slow progress

Some families were also offered teplizumab, the first-ever type 1 diabetes immunotherapy, which can delay the need for insulin by around three years in people with early-stage type 1. Teplizumab was licensed by the Medicines and Healthcare products Regulatory Agency in the UK in August 2025. It's not yet available routinely on the NHS, but a handful of people have received the treatment through an access programme managed by the drug company.

Amy Norman, 44, from the West

Midlands, discovered via the ELSA study that her 12-year-old daughter, Imogen, is in the early stages of type 1 diabetes. Imogen was later able to access teplizumab.

Amy said: "Being part of the ELSA study has helped us as a family to prepare for the future in a way we never

expected. Knowing what's coming – rather than being taken by surprise – has made an enormous difference to our confidence and peace of mind.

"Imogen took part in the study to further research and help others, but it has helped her too – being forewarned is being forearmed. She was always going to develop type 1 diabetes, but through ELSA we've been able to slow the process and prepare – we know what is coming, but we're not scared."

You can hear more from Amy and her daughter Imogen on their experience with ELSA and teplizumab on page 20.

The next phase

Taken together, ELSA's findings so far show that a childhood type 1 diabetes autoantibody screening programme is workable in the real world. None of this progress would be possible without the children and families who stepped forward to take part. Over 40,000 families, like Amy's, have already signed up to the study.

Building on this strong foundation, Diabetes UK and Breakthrough T1D are thrilled to award £1.5 million to fund the second phase of the research, ELSA 2. ELSA 2 will expand screening, previously offered to those aged 3 to 13 years, to all children in the UK aged 2 to 17 years. The researchers aim to recruit 30,000 additional children across these new age groups.

ELSA 2 will also establish new NHS Early-Stage Type 1 Diabetes Clinics, providing families taking part in the study with clinical and

psychological support and creating a clear pathway from screening to diagnosis, monitoring and treatment.

Lead researcher, Professor Parth Narendran, said: "We are extremely grateful to all the families who have participated in the study and

generously given their time to help understand how a UK-wide screening programme could be developed.

Together with Diabetes UK, Breakthrough T1D and the NIHR (National Institute for Health and Care Research), we are working towards a future where type 1 diabetes can be detected in a timely manner, and families appropriately supported and treated with medicines to delay the need for insulin."

Dr Elizabeth Robertson, Director of Research and Clinical at Diabetes UK, said: "The ELSA study is generating the evidence needed to make type 1 diabetes screening a reality for every family in the UK. We're incredibly grateful to the 40,000 families who have already signed up and urge others to get involved. Together, we can transform type 1 diabetes care for future generations."

The findings from ELSA's first phase signal a major step towards a future in which type 1 diabetes can be detected early, managed proactively, and potentially delayed through immunotherapy. ELSA demonstrates that childhood screening in the UK is feasible, acceptable to families, and capable of preventing emergency diagnoses. Continued research through ELSA 2 will assess how screening can be scaled across the NHS and evaluate its cost-effectiveness.

■ If you'd like to learn more or take part, visit elsadiabetes.nhs.uk/take-part. By getting involved, families are helping to reshape type 1 diabetes care.

"She was always going to develop type 1 diabetes, but through ELSA we've been able to slow the process and prepare"

Breaking research discoveries to tackle diabetes complications

Our researchers have recently uncovered breakthroughs in tackling diabetes complications, such as eye and kidney damage. These discoveries open the door to potential new treatments that could prevent and manage these problems and protect people with diabetes from harm



With our funding, researchers at the University of Bristol have shown that a pioneering gene therapy can reduce early signs of kidney damage in mice with diabetes.

Kidney gene therapy shows promise

Current treatments can slow kidney damage, but they don't act on the root of the problem. Diabetic kidney disease starts in the glomerulus – tiny filters in the kidney. Normally, a protein called VEGFC helps to keep the glomerulus blood vessel lining healthy. In diabetes, this lining can become damaged.

Dr Rebecca Foster and team have been developing a new gene therapy to prevent or repair early signs of this damage by boosting VEGFC in the glomerulus.

The therapy uses a harmless virus that acts like a microscopic postman to deliver the VEGFC gene directly into glomerulus cells. The virus infects cells, and while the immune system then quickly eliminates the virus, its genetic cargo is left behind. This instructs the kidney filter cells to produce more of the protective protein.

In their latest study, Dr Foster and team showed that in mice with type 1 diabetes, the treatment increased VEGFC levels in the kidney and reduced protein leakage into the urine by around 64%. A drop of 30% or more

is considered a meaningful sign that kidney damage is slowing down.

This is the first therapy to directly target the root of kidney disease in the glomerulus. The researchers also hope a one-time treatment could have a long-term protective effect.

Dr Rebecca Foster explained, “Our goal was to investigate whether gene therapy could offer a viable solution by delivering VEGFC in a more targeted way. This approach has not been explored before in pre-clinical models and offers a long-term solution for those who are at risk of developing kidney disease.”

While it's early-stage research in mice, the study shows the potential of this innovative gene therapy to offer an urgently needed way to intervene early, before irreversible kidney damage sets in.

Different forms of VEGFC gene therapy have already been tested in clinical trials involving people with breast cancer, indicating this type of treatment can be safe in humans. With further research and if shown to work in people with diabetes, this approach could lead to a completely new way to protect against kidney complications.

Early trigger of diabetic eye disease discovered

Elsewhere, our researchers have identified a key protein that triggers

the earliest stages of diabetic retinopathy. The discovery could revolutionise how retinopathy is treated, shifting from managing late-stage eye damage to preventing vision loss before it begins.

The new study, led by Dr Giulia De Rossi at UCL and co-funded by us and Moorfields Eye Charity, reveals that a protein called LRG1 plays a critical role in starting the earliest stage of eye damage after diabetes develops.

LRG1 causes the cells that wrap around the eye's smallest blood vessels to 'squeeze' too tightly and strangle them. This reduces oxygen supply to the retina and sets off a chain of events that can eventually lead to sight loss.

Importantly, when researchers blocked LRG1 activity in mice with diabetes, they were able to prevent this early damage and preserve healthy eye function.

Close-up of the retina



Dr De Rossi said, “Our discovery shows that diabetic eye disease starts earlier than we thought, and LRG1 is a key culprit in this early damage. Targeting this protein could give us a way to protect vision before serious damage occurs and prevent, rather than treat, blindness in millions of people living with diabetes.”

Diabetic retinopathy occurs when high blood sugar levels damage the retina at the back of the eye. Attending regular eye screening appointments can spot early signs of damage. But current treatments aren’t effective in the early stages of retinopathy. They’re usually only used once symptoms, such as blurred or distorted vision, appear and irreversible damage has set in.

Even then, current therapies – which target another protein called VEGF – only work for around 50% of people with diabetes and rarely reverse existing harm.



Research discoveries could lead to new treatments for diabetes complications

This new research shows that LRG1 starts causing eye damage far earlier than VEGF, making it a promising new treatment target.

Unlike current treatments, a drug that blocks LRG1 could intervene before vision deteriorates and prevent the progression of retinopathy altogether.

The UCL researchers have already developed a tried and tested LRG1-targeting drug. They’re now completing final laboratory studies and hope it will be ready for clinical trials in humans in the near future.

The team believes LRG1 therapy will not only stop the onset of diabetic retinopathy, but also benefit people in the later stages of the disease, particularly those who don’t respond to existing anti-VEGF treatments.

By identifying the root cause of early damage, and offering a new path for treatment, this research holds immense promise for protecting the sight of people with diabetes worldwide.

New retinopathy drug to strike early

A third and final study, led by Professor Tim Curtis at Queen’s University Belfast, has uncovered a promising

new drug to treat early eye damage before it becomes irreversible.

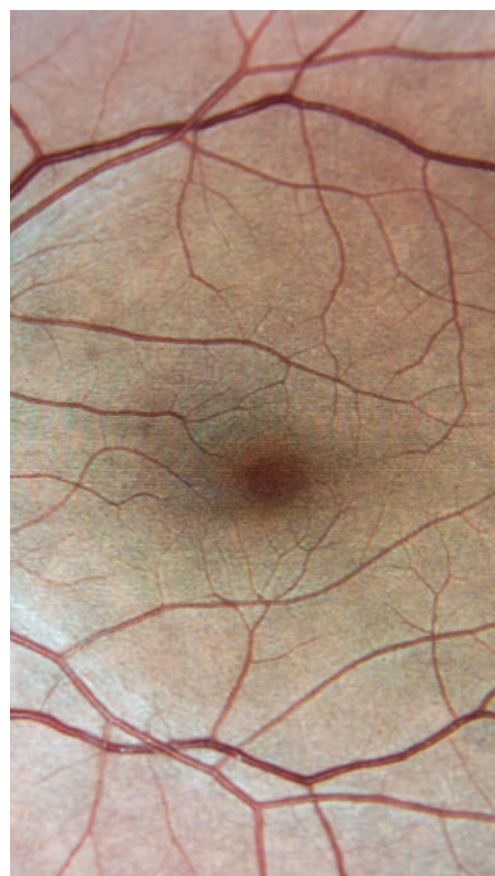
The team tested a drug called 2-HDP in rats with diabetes and found that it protected the retina’s nerve cells and blood vessels, reduced inflammation, and helped preserve visual function. The drug works by neutralising harmful molecules that accumulate in the retina during diabetes and contribute to sight loss.

To check the importance of these findings for humans, the research

team also looked at retinal tissue from people with diabetes and found the presence of the

same toxic molecules targeted by 2-HDP. This suggests that the drug may have the potential to target these damaging molecules in people as well.

Computer simulations also showed that the drug can easily enter cells within the body, raising the possibility of developing tablet-based treatments in the future. Professor Curtis concluded, “This breakthrough highlights the importance of early intervention in diabetic retinal disease and the pressing need for new, targeted treatments that can protect vision before lasting damage occurs.”



Words: Faye Riley. Photography: AdobeStock

ASK THE EXPERTS

Our team answers your questions about diet, treatment and life with diabetes



EXPERT TEAM



NATASHA MARSLAND
Senior Clinical Advisor: Natasha has worked as a registered dietitian for 25 years.



ESTHER WALDEN
Senior Clinical Advisor: Esther worked as a Diabetes Specialist Nurse for over 18 years.



DOUGLAS TWENEFOUR
Head of Clinical: Douglas has over 20 years experience in nutrition and dietetics.

Q My brother was admitted to hospital with high blood sugar levels and suspected diabetic ketoacidosis (DKA) a few weeks ago. He uses insulin, and I thought he had type 1 diabetes, but apparently, he has type 3c, which I've never heard of before. At home, he has a continuous glucose monitor (CGM) to monitor his blood sugar levels, but the hospital staff aren't using this and say they have to do finger-prick testing instead. I don't understand why they're monitoring his blood sugars this way, and I want to know if there are any guidelines saying hospitals should use CGMs?

Dorothy, Brighton

Esther says: We don't often hear from people whose connection to diabetes is through type 3c, as it isn't as common or well known as type 1 and type 2, or gestational diabetes. Type 3c can develop when the pancreas is damaged, and it stops producing enough insulin for the body. This damage can be caused by disease, trauma or surgery.

Causes of type 3c diabetes are pancreatitis (acute or chronic), pancreatic surgery, pancreatectomy (removal of

all or part of the pancreas), trauma, pancreatic cancer, cystic fibrosis or haemochromatosis. If you have type 3c diabetes, your pancreas may also stop producing the enzyme you need to digest food.

Managing type 3c diabetes can be difficult, and treatment will depend on the level of damage to the pancreas. Treatments for managing blood sugar levels are usually metformin or insulin. According to the National Institute for Health and Care Excellence (NICE), anyone with a type 3c diagnosis should be assessed every six months to determine whether they would benefit from insulin therapy. If not, their diabetes should be managed according to the guidance for type 2 diabetes. If insulin is required, guidance for type 1 diabetes should be followed.

Regarding guidance for the use of CGMs in hospitals, although individual hospitals will have their own policies, the Joint British Diabetes Societies for Inpatient Care and the Diabetes Technology Network have produced guidance for healthcare professionals. This guidance says that if a person with diabetes can self-manage and can use their CGM, they

should be encouraged to continue in the same way they do out of hospital. However, hospital staff will still need to do at least two capillary glucose tests (finger-prick checks) daily. This is because there could be problems with the accuracy of CGM monitoring when someone is unwell. Currently, CGM cannot replace finger-prick checks in hospital and these tests are the standard for glucose monitoring in hospital. There are times when CGM can't be used at all in hospital – for example, if the person is very unwell. Some people may also choose not to use it while they are staying there.

Finally, if your brother is in hospital for a while and his GP usually prescribes CGM sensors, you may find that the GP will pause providing prescriptions until he is discharged. However, once your brother is able to self-monitor again, you can check whether the hospital has a diabetes team. They may be able to support with access. Once you have some idea of the likely hospital discharge date, you or your brother should contact his GP so they can resume prescribing sensors from that date.

Q I work for a firm providing vocational qualifications and professional competence training for heavy goods vehicle (HGV) drivers. One driver completing their Certificate of Professional Competence (CPC) course mentioned that the rules for drivers with diabetes changed late last year. We need to ensure we give trainees accurate information, so I wanted to find out what the new rules are.

Roy, Honington

Douglas says: With effect from 7 November 2025, the Driver and Vehicle Licensing Agency (DVLA), which covers Great Britain, updated the rules around monitoring blood glucose (sugar) levels for drivers of large vehicles such as lorries, buses and coaches (Group 2 licence holders). This means that Group 2 licence holders in England, Scotland and Wales who manage their diabetes with insulin or other medications with a risk of hypoglycaemia (low blood sugar) can now legally use continuous glucose monitors (CGM) to monitor sugar levels when driving. The new rules on CGM use do not apply in Northern Ireland, and Group 2 licence holders must continue to use finger-prick checks when driving there – even if the DVLA issued their licence. At the time of going to press, this information was correct. However, for the most up-to-date guidance for Northern Ireland, check the Driver & Vehicle Agency (DVA) page ‘A guide for car or motorcycle drivers with diabetes’ at nidirect.gov.uk

The change follows years of campaigning by Diabetes UK to encourage the DVLA to allow the use of CGM by drivers of cars and light vehicles (Group 1 licence holders) from 2018. However, the Medical Advisory Panel on Driving and Diabetes needed more information on the accuracy and reliability of CGM before deciding on whether they were appropriate for drivers of larger, heavier vehicles who typically spend long hours driving. The ongoing improvements in the technology, alongside our

continuing campaigning, have led to the DVLA modernising the rules. This recent change allows their use by Group 2 licence holders, bringing blood sugar testing for people who drive for work into line with how many people manage their sugar levels in daily life.

The new rules give Group 2 drivers the option to use CGM instead of finger-prick checking to monitor their sugar levels (with one important exception). All other requirements remain the same after the change. This means drivers can use CGM or continue to use finger-prick checks, whichever works best for them. Regardless of how people monitor their blood sugar levels, the driver still has to check (including scanning their CGM) at times relevant to driving, which means:

- at least twice daily, including on days when they are not driving for work
- just before driving
- at least every two hours during the journey, ensuring that no more than two hours has passed between blood sugar checks at any time during the journey.

These are the general rules around timing. Blood sugar checks should be more frequent if there is an increased risk of blood sugar dropping, such as during/after physical activity or due to changes in eating patterns.

The exception to using CGM is if the CGM stops working or readings do not match how a driver is feeling or the symptoms they are experiencing. In this situation, a finger-prick check must be done to check blood sugar levels and this back-up equipment must be carried with the driver at all times.

As has always been the case, drivers

must pull off the road safely and pause driving to check their sugars levels – whatever type of testing device they are using.

CGMs used by Group 2 licence holders must be a medically approved, non-adjunctive device, which means it must be licensed for clinical decision-making, including insulin doses, without the need for additional finger-prick checking. Almost all CGMs supplied by the NHS currently meet this requirement. But, if drivers are unsure or have bought their CGM privately, they should check with their healthcare professional or the manufacturer they purchased the device from.

The medical process for licence applications and renewal is unchanged by CGM use. However, applicants only need to provide four weeks of glucose readings to apply for, or renew, a Group 2 licence. Drivers should take all their glucose monitoring devices along to the medical examination. This includes their CGM records and any blood glucose monitor used for finger-prick checks during this four-week period. Given that the finger-prick monitor may not be used often or at all, it is important that drivers remember to check it regularly to ensure, for example, that the date and time are set correctly and the batteries are working.



WRITE TO

‘Ask the experts’,
Balance, Diabetes UK,
126 Back Church Lane,
London E1 1FH, or email:
balance@diabetes.org.uk

HELPLINE

To speak with a trained
advisor, call: 0345 123
2399 Mon to Fri, 9am to
6pm, or email: helpline@diabetes.org.uk

SUPPORT FORUM

For information and
support, chat to
members of our forum
at: diabetes.org.uk/bal-forum

A photograph of a family of three sitting outdoors. On the left is a man with a beard wearing a pink and blue patterned shirt and blue jeans. In the middle is a young girl with long brown hair wearing a floral dress and blue jeans. On the right is a woman with long blonde hair wearing a yellow cardigan over a blue floral dress. They are all smiling and sitting on a stone step in front of a large bush with yellow flowers. The title 'FUTURE HOPES' is overlaid in large white letters on the left side of the image.

FUTURE HOPES

Amy, 44, has lived with **type 1 diabetes** for over 30 years and remembers only too well the **impact** of her diagnosis as a teenager after **being hospitalised**, aged just 13. Now mum to Imogen, 12, she hopes to see her daughter delay the progression of her own type 1 and enjoy some carefree adolescent years without the relentlessness of the condition – thanks to early detection and emerging immunotherapy treatment. Here, Amy shares their story...



he journey that has led Amy's daughter, Imogen, to become one of the first people to access groundbreaking immunotherapy treatment all started with a post on social media asking for volunteers to take part in research. It was a study that was undertaking the first research of its kind in the UK to understand how to screen children's future risk of developing type 1 diabetes.

Launched in 2022, the ELSA (EarLy Surveillance for Autoimmune diabetes) study, co-funded by Diabetes UK and Breakthrough T1D, set out to recruit families and their children to check for signals that can appear in the blood, which indicate the immune system has started to attack the pancreas. Amy, her husband, Gav, and their daughter Imogen would be one of those families.

"I came across ELSA in late 2023 after I'd been scrolling on social media looking at research studies into early type 1 diabetes," recalls Amy, a mental health practitioner. "Having type 1, I was really interested in this kind of research. I knew that Imogen would have a slightly higher risk herself and at the back of my mind I'd always wondered if this was going to be part of her journey. So, I signed her up straight away."

Risk management

When Amy was diagnosed, she ended up in hospital with diabetic ketoacidosis (DKA). She felt that if being a part of the ELSA study could take some of the uncertainty out of whether Imogen was going to develop type 1, then they'd be ahead of the game. "Being able to manage Imogen's diagnosis and avoid her being really unwell – just as I was – would be a game-changer. I think my diagnosis was huge for my mum, as well as my family," Amy says. "Before diagnosis, I had all the classic symptoms. I had lost a lot of weight, I was drinking a lot of water, and going to the toilet a lot and feeling incredibly tired," recalls Amy. "I was travelling home from my local high school and remember seeing an advertisement on the bus saying, 'Are you thirsty? Are you losing weight? Are you tired? Are you going to the toilet a lot? You might have diabetes, go to your GP'. And I said 'Yes' to all of them so my mum took me to my GP"

The impact of an unexpected type 1 diagnosis at a time when she should have been enjoying teenage life made Amy all the more determined to seize any opportunity that could mean Imogen would be forewarned and have a few more insulin-free years. "When I was diagnosed at 13, a very helpful nurse explained I needed to inject myself with insulin using a syringe because that's what they gave you at the beginning, back in the 1990s," Amy recalls of the moment insulin would become a big part of her daily life.

"But I was meant to be going skiing with school a few months later, and when I asked her if I could still go, she said: 'Whether you inject yourself or not is whether you go skiing or not'. So



Words: Faye Riley and Sabeha Syed. Photography: Gemma Griffiths

then I picked up the syringe and injected myself, because that was the motivation – I wanted to go on that school trip.”

Once Amy had signed Imogen up to the study, the screening itself was straightforward. “The pack came in the post with a finger-prick blood test kit,” Amy recalls. “We did it, sent it off, and then honestly forgot about it.” About two to three months later, Amy got a call from one of the ELSA team. They explained that Imogen had some of the protein markers in her blood that they test for, called autoantibodies. The team also explained to Amy that they would need to visit a hospital so that Imogen could have a further blood test to confirm the results and find out how many autoantibodies she had. That blood test would tell them more about Imogen’s future risk of developing type 1. The family chose to go to Birmingham Children’s Hospital.

“We got a phone call with the results a few weeks later, while Imogen and I were in the car,” Amy explains. “The nurse on the call explained Imogen had three autoantibodies and that meant she was in the early stages of type 1 and was going to need insulin therapy at some point in the future. I explained this to Imogen, but having seen me manage my diabetes and not let it have a huge impact on my life, she took it in her stride.”

Delaying tactics

While Imogen was taking part in the ELSA study, Amy asked the doctors who were monitoring her daughter if there were any early treatments or research trials that would slow her development of type 1. That’s when teplizumab was first mentioned to her. “The doctor told me it had been shown to delay the full development of type 1 diabetes for around three years, but it wasn’t approved in the UK,” Amy says.

It would take a few months before the doctor mentioned teplizumab to Amy again. She was told that Imogen was at the right stage where teplizumab could be used. “The doctor explained to me that Imogen could potentially go on teplizumab through a special access route managed by the drug company,” says Amy. “We spoke to Imogen about it a lot beforehand. And I asked other family members and friends to ask her about it too – to be reassured Imogen wasn’t just telling me what she thought I wanted to hear. She told everyone she wanted to go ahead with the treatment and was always very cool-headed.”

Because of Amy’s experience of growing up with diabetes, she was confident that teplizumab was the best way forward for Imogen. “I remember thinking, if this opportunity had been available to me just before I got diagnosed, I would have taken it hands down to delay type 1 for as long as possible,” says Amy. “And for Imogen, a huge motivator was knowing she could not only improve her own life but also help make things better for other children in the future and I think that’s what kept her going through all the tests and hard parts.”

In March 2025, Imogen started the 14-day course of

“We feel incredibly lucky and grateful we got this opportunity – it all happened because I clicked on a link and found out about the ELSA study”

teplizumab at Birmingham Children’s Hospital. “My husband, Gav, and I arranged to take time off work and stay nearer the hospital,” says Amy. “And I know there were a lot of things the team in Birmingham had to do to make it all happen – we are so grateful for that.”

Thinking back to the start of Imogen’s groundbreaking immunotherapy treatment, Amy says: “On the first day of treatment they put in a cannula, which they’d use to give Imogen a daily infusion of teplizumab. She coped brilliantly throughout – she’s so resilient, and she didn’t feel sick or tired.”

The infusion only took about 30 minutes, but the family would stay in the hospital for most of the day so that Imogen could be monitored. “Mid-way through the course, her white blood cells did drop,” Amy explains. “We’d been told to expect this because teplizumab targets the immune system. It looked like we might need to delay the next day’s dose, but fortunately they came back up again quite quickly. If anything, boredom was the hardest part. Then we got to day 14 and that was it – all done!”

Imogen was advised to wear a mask for a few days afterwards because the drug temporarily lowers immunity. She did catch a cold but bounced back quickly.

Now Imogen has follow-up appointments to check her blood sugar levels and how her pancreas is working. “What I’m truly hoping is that we’ve bought Imogen more time before she fully develops type 1 diabetes,” says Amy. “I’ve told Imogen that having diabetes won’t stop her living the life she wants to. She can still do everything she wants. But it does take that extra care and effort to manage life with diabetes and keep yourself well. If we can give her a childhood where she doesn’t need to think about that yet – especially over adolescence, which is already a hard time – that will mean everything.”

Amy is acutely aware of just how important taking part in diabetes research has been, not just for Imogen, but for other families just like theirs. “We feel incredibly lucky and incredibly grateful that we got this opportunity. It all happened because I clicked on a Facebook link and found out about the ELSA study,” Amy says, looking back at their journey. “Now I always encourage my friends who are parents to take part in any studies, if they can.”

■ Since Amy signed her daughter up, the ELSA study has published its results and expanded. In total, a staggering 40,000 families have signed up to take part so far. See page 14, for more on the latest results, how to take part and what’s next for the study.

TYPE 1 DIABETES IMMUNOTHERAPIES

Our immune system is normally made up of different types of immune cells, all working together to protect us against infections. But in type 1 diabetes the immune system thinks insulin-producing beta cells are the enemy. The immune system then sets out to destroy them.

This means you can't make enough of your own insulin and need to replace it through injections or a pump. But insulin doesn't treat the underlying cause of type 1 – an immune system attack. This is what new treatments – called immunotherapies – will be able to do, by reprogramming the immune system so that it no longer destroys beta cells. In the future, they could stop type 1 in its tracks to delay, prevent or help to cure the condition.

HOW IMMUNOTHERAPIES WORK

Different immunotherapies work in different ways, but they all aim to stop the immune system from attacking the pancreas.

Scientists believe immunotherapies could help people with type 1 diabetes at three time points:

Delay or prevent: Type 1 doesn't develop overnight. Long before symptoms appear or a diagnosis is made, the immune system begins its attack. Scientists can detect signs of this attack with a test for type 1 diabetes autoantibodies. This way, they find people who haven't yet fully developed the condition, but are going to in their lifetime. Immunotherapies could be given to these people before too many of their beta cells have been destroyed, to hold off type 1. Or, one day, prevent it entirely.

Stop: When people are first diagnosed with type 1, up to 20% of their beta cells may still be alive. This is because their immune system hasn't finished its attack. Immunotherapies could be used to preserve these beta cells. The more beta cells we can protect, the more insulin someone can produce on their own. This would make blood sugar management easier and protect against serious diabetes complications down the line.

Cure: Immunotherapies may also form part of a cure for people already living with type 1 for a longer time. Through our research and the Type 1 Diabetes Grand Challenge, we're supporting scientists to develop treatments to replace or regenerate beta cells that have been destroyed in type 1.

Once we can do this, immunotherapies could be used alongside these cell therapies to protect new beta cells from further immune attack.

■ **For more on Type 1 Diabetes Grand Challenge, visit type1diabetesgrandchallenge.org.uk**

WILL TEPLIZUMAB BE WIDELY AVAILABLE?

The UK's Medicines and Healthcare products Regulatory Agency (MHRA) decided teplizumab – also known as Tzield – was safe and effective and licensed it in August 2025. It has been licensed for people aged eight and over who are in the early stages of type 1 diabetes, before symptoms appear and type 1 has fully developed. This means it can be prescribed in the UK to this specific group of people. But it isn't available through the NHS yet.

The next step is for the National Institute for Health and Care Excellence (NICE) to determine if and how teplizumab should be used within the NHS. We know NICE is assessing this at the moment. Currently, NICE expects to give its final decision in April 2026. We do know timings can change, but we'll be keeping you updated every step of the way.

For teplizumab to reach those who could benefit from it, there also needs to be screening initiatives in place to identify people in the early stages of type 1. We've been leading the way to make type 1 diabetes screening programmes a reality. This includes funding vital research, like the ELSA study, as well as working with the NHS to turn research advances into reality.

Before its licensing, Imogen was able to access teplizumab through a special programme run by the drug company that allows small numbers of people to try promising new treatments early.



Imogen during her 14-day course of treatment at Birmingham Children's Hospital



▲ FEEDING FRENZY
Orange bamboo fibre
bird feeder, £9.95

This stylish resin and bamboo fibre bird feeder offers a safe and eco-friendly feeding spot in your garden that will also add a pop of colour.



▲ SAFE SPACE
Green oval bamboo
fibre birdhouse, £12.95

Bright and breezy, this birdhouse is the perfect space for smaller birds to nest or shelter in. Made from a durable blend of bamboo fibre and resin, it can be hung or mounted.



▲ PICTURE PERFECT
The healthy portion
plate (pictures), £8.99

This mealtime plate is a simple way to help you manage your portion sizes and balance your meals.

*If you are thinking about weight loss, speak to your healthcare team first, especially if you are taking any medications.



◀ GO RETRO Soft grey
kitchen scales, £29.95

These kitchen scales, designed with both function and vintage charm in mind, will take pride of place on any worktop. With large, easy-to-read units of measurement in grams and ounces, they are perfect for any culinary enthusiast.



▲ NATURAL BEAUTY
Cream Iona Buchanan
meadow fabric pot, £14.99

Designed in collaboration with wildlife artist Iona Buchanan, this fabric pot will bring the beauty of the natural world into your home. Made from recycled plastic bottles, the pot features illustrations of meadow flowers inspired by the artist's own garden.

BRIGHT IDEAS

Bring some colour and style into everyday life when you shop our range for home and garden at diabetes.org.uk/bal-shop

► MAKING HISTORY
TfL vintage poster Cup
Final mug, £6.95

Score a winner with this striking ceramic mug featuring an authentic London Underground poster design from the 1926 Cup Final at Wembley Stadium.





▲ FUN AND FUNCTIONAL
Wind-up owl kitchen
timer, £8.95

For a quirky take on a kitchen timer, look no further than this cute and practical owl-shaped cooking essential. The easy-to-use mechanical timer counts down from up to 59 minutes, letting you know when your time is up with a clear bell that rings for three seconds.



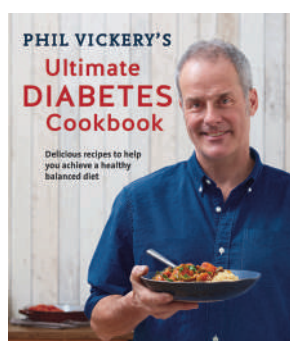
▲ SHINE A LIGHT
Recycled iron tealight
seahorse, £17.99

Made from reclaimed iron and featuring beautiful hand-painted finishes, this sustainable seahorse tealight holder will add an enchanting glow to any space.



▼ SPOILT FOR CHOICE
Phil Vickery's Ultimate
Diabetes Cookbook, £22

One of Britain's best-loved TV chefs, Phil Vickery, brings you this collection of delicious recipes to help you achieve a healthy, balanced diet while still tempting your taste buds. Supported by Diabetes UK, each recipe includes all the nutritional information you need to make healthy food choices.



▼ MAKE ROOM **Wooden**
butterfly hotel, £14.95

Beautifully crafted in wood, this butterfly hotel will add a unique touch to any garden while supporting local wildlife.



◀ WELCOME HOME
Matt ceramic LED decoration
– large house, £12.95

A charming ceramic house decoration that features warm and welcoming white LED lighting that gently shines through its many windows. Battery-operated, this delightful decoration will shine on shelves or tabletops and makes for a perfect night light in any room.



▲ HEART'S DESIRE
Glossy ceramic tealight
holder – heart, £2.95

This glossy ceramic tealight holder with heart-shaped cut-out will softly scatter candlelight across any romantic evening or cosy night in. The elegant design and sleek finish will enhance your home with its warm, inviting glow.



▲ BRING SPRING
INTO YOUR HOME
Satsuma scented candle
(Mandarin & Matcha), £12.99

Bring a fresh and uplifting fragrance to your home with this Mandarin & Matcha scented candle featuring a bright and colourful design. Its blend of bright citrus and subtle green tea notes will fill any space with its delightful light and scent.

A MAN WITH A PASSION

Dr John Ireland, along with his colleagues Dr Paton and Dr Reith, is best remembered for his contribution to the invention of the insulin pen – a feat of bioengineering that was a step-change for millions of people with diabetes. But his contribution to the diabetes community doesn't stop there. Described as a visionary researcher and a quietly spectacular diabetologist, we talk with John's son, Dr Roddy Ireland, and those who worked closely with him, to find out more about his passion to make life better for people with diabetes



Just a few decades ago, using insulin was a complicated affair. People with diabetes relied on vials, glass syringes and reusable steel needles: clunky devices that needed sterilising and sharpening at home. Syringes were carried around in cases filled with industrial meths to keep them clean. It was a lot of equipment to remember, and it could be a hassle to use – especially when travelling. But by the early 1980s, that was all about to change. Three Glasgow-based doctors were developing an invention that would change the lives of people with diabetes around the world. They were Dr John Ireland, Dr Sheila Reith and Dr John Paton.

How it all began

“Wouldn't it be so much simpler if you had a device in your pocket that you could use?” Dr Ireland said to his wife, Sonia, on a walk one day, their son Roddy recalls.

Dr Ireland, from a family of doctors, was a Consultant Physician at Glasgow's Southern General Hospital. He established the hospital's first diabetes clinic soon after becoming a consultant in 1966. He was a passionate and energetic physician, keen to advance knowledge of diabetes as well as improve his patients' lives.

He worked with Dr Reith, whose daughter had diabetes, and bioengineer Dr Paton to bring the concept of an insulin pen to life. Like Dr Paton, John had a keen interest in engineering. The team worked closely with bioengineering technicians at Glasgow's Department of Clinical Physics and Bioengineering to develop the device. The team ultimately developed a prototype comprising a dosage dial, a driving mechanism and a cover designed to protect a disposable plastic syringe. The syringe plunger was removed, leaving a barrel that functioned as a

Diabetes UK's role in the insulin pen invention

Testing the insulin pen with 'real' people with diabetes was critical to getting it to market. But the team in Glasgow needed support to hold a large-scale trial of the devices. They needed funding to dramatically increase the production of the pens available so that dozens of people with diabetes could try them out and recommend improvements.

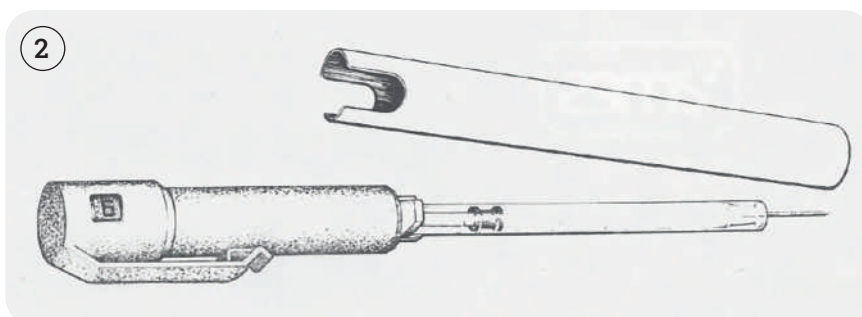
Diabetes UK was able to support this much larger trial. Initially tested out on a group of seven volunteers, this funding enabled a trial with 76 people.

This required the provision of funds for 100 pens and 5,000 cartridges, alongside other clinical trial costs. But given the impact the pen has had on millions of people with diabetes, it was certainly more than worth it.

cartridge would today.

“This was before the days of 3D printing, so these were made out of metal by hand,” says Dr Ken Paterson, a diabetes consultant who worked with Dr John Ireland at the Southern General Hospital from 1984 until his death in 1987.

1. The Novo Syringe (1925) and first NovoPen® (1985)
– insulin pens used today owe much to the prototype developed by Dr Ireland and the team in Glasgow.
2. A diagram showing Penject.
3. Dr John Ireland.
4. Hypoguard advertisement for Penject.



4

Penject

from Hypoguard

A more convenient, accurate method of insulin injection

Penject is a new instrument, used in conjunction with a Becton Dickinson U100 1 ml syringe, which offers greater convenience and accuracy. When completely filled, Penject contains sufficient insulin to last up to 3 days. Injections consist of simply selecting the amount of insulin to be injected, inserting the needle and pressing the delivery button.

Apart from convenience, Penject also ensures very accurate measurement of the amount of insulin to be injected, and can therefore make a significant new contribution to diabetic control.

- ★ Ensures accuracy of insulin intake
- ★ Reduces the frequency of syringe filling.
- ★ Can be used with certain mixtures of insulin.
- ★ Particularly suitable for younger diabetics.
- ★ Dispensation in the range of 2 units upwards.
- ★ Quantity simply adjusted by rotating selection ring.





HYPOGUARD CARE

For further information on the Penject, contact:
Hypoguard Ltd,
Dock Lane, Melton,
Woodbridge,
Suffolk IP12 1PE
Telephone
(0339 43) 7333/4

*This product may be supplied free of VAT on receipt of a signed VAT exemption certificate, available from Hypoguard.

FROM IDEA TO MARKET

1978

Dr John Ireland, together with Dr Paton and Dr Reith, began developing a prototype insulin pen

1980

Their patients were keen to try it out and the first seven volunteers tested it to great success

1981

Drs Ireland, Paton and Reith turn to Diabetes UK to help them test more pens in a large-scale trial

1983

The patent of the design is licensed to Hypoguard who released the pen to market under the name Penject

1985

Novo (now Novo Nordisk) buy the patent and release the NovoPen® – the first widely available insulin Pen

Test run

Now a doctor too, Roddy, who was about 15 at the time, remembers seeing one of his dad's prototype pens clipped into his jacket alongside several standard ink pens. "You wouldn't know the difference," Roddy remembers. By combining insulin storage, dosing and delivery into one tool, the pens would turn injections from a time-consuming task – requiring several pieces of equipment – into something quick and inconspicuous.

It was, as Ken remarks, "a really, really life-changing step-change in people's ability to manage their condition. It made it so much more straightforward. You simply had something that you carry around with you."

Dr Ireland, alongside co-inventors Dr Reith and Dr Paton, described their pen as a 'convenient pocket insulin syringe' in a 1981 *Lancet* article detailing the invention. The article was co-authored by diabetes specialist nurse Margaret Wilson, who helped the very first users to get to grips with the pen.

The team initially tested the device on seven volunteers before running a much larger trial funded by Diabetes UK. This helped them incrementally improve the pens to ensure they were ready for a wider audience.

Empowering more people

The inventors wanted to get their device into the hands of people with diabetes as quickly as possible. "John was keen to make sure that all the new technologies coming along in the early 1980s were getting to his patients and empowering them," Ken says. With an entrepreneurial spirit, John "pushed the pen forward, developed it and got it commercialised."

Dr Ireland and the team applied for a patent for their design on behalf of the Greater Glasgow Health Board (GGHB) before licensing it to the company Hypoguard, which made other diabetes equipment. In 1983, the firm released the pen to market under the name 'Penject'.

The GGHB sold the patent to drug company Novo (now Novo Nordisk), which, in turn, went on to release the NovoPen® in 1985 – the first widely

Pushing the boundaries

Diabetes UK continues to fund innovation in diabetes research today. We've backed game-changing ideas like the artificial pancreas that have led to hybrid closed loop insulin delivery systems. These devices can help reduce high and low blood sugar levels, as well as reduce some of the psychological burden of diabetes.

Now, we're focused on advancing diabetes technology and expanding access to it. This includes funding innovative research at the University of Cambridge to develop a truly fully closed-loop system for people with both type 1 and type 2 diabetes. While our researchers are also investigating the barriers that limit equitable access to tech, and identifying ways to overcome them.

■ Find out more by visiting diabetes.org.uk/bal-tech-research

available insulin pen. The NovoPens used by many people with diabetes today owe much to that first prototype developed in Glasgow, as do many pen-delivery devices used for other drugs.

Later life

Dr Ireland's contribution to the diabetes community was considerable, according to fellow diabetologist Dr Charles Fox, who performed research with him in the 1970s. The pair worked on a 1977 paper that demonstrated the influence of blood sugar on small blood vessels in rats. Dr Fox, based at St Thomas' Hospital in London, would hand-deliver samples to Glasgow, where John would analyse them using electron microscopy. His pioneering use of this technology enabled him to create high-resolution images of the samples. The research was the first to definitively show the link between high blood sugar levels and small-vessel damage in rats.

John founded and edited *Diabetic Medicine*, the official journal of Diabetes UK, and wrote two influential books: *Diabetes Today* and the *Colour Atlas of Diabetes*, co-authored with the similarly influential Dr Arnold Bloom. Remembered fondly by his colleagues, John was considered an excellent teacher as well as a visionary researcher.

But his innovations weren't limited to academia. This interest and passion for research and innovation went hand in hand with

his day-to-day practice as a consultant doctor, Dr Fox said. "He

was one of the most quietly spectacular diabetologists ever."

Day-to-day innovations included giving young patients copies of their test results in the mid-1980s, empowering them with control of their own information. "We developed a little passport for adolescents with type 1 diabetes," said Ken. "They could record all their results – their HbA1c, their blood pressure, their cholesterol. Now, that's fairly standard. But it wasn't for a long time."

After his death, Diabetes UK recognised his importance with the Dr John Ireland award. It recognised those who had 'shown an outstanding contribution to improving the lives of people with diabetes across Scotland'.

For his obituary, Professor Jim Farquhar, University of Edinburgh, wrote: 'Most Balance readers never met this wonderful man. Each one of us owes him thanks. All of us are disadvantaged by his death. None of us dares to forget his example of service to all at greatest cost to himself.'

John's interests outside the medical world were just as fast-paced. He enjoyed windsurfing, skiing and sailing and drove an Italian Lancia car. John's three sons followed the family tradition of becoming doctors, with one of them seeing three of his own children enter medicine.

Today, his colleagues remember that despite his impressive contributions, his first priority was always his patients. "He was very much patient-orientated,"

Ken recalls. "He did lots of other things, but his primary focus was on trying to make life better for people with diabetes."

"Colleagues remember his first priority was always his patients"



DIABETES AND RAMADAN

If you choose to fast during this holy month and you live with diabetes, we're here to help you stay safe and healthy.

Read our top tips on Ramadan:

- Speak to your healthcare team to understand your risk of fasting, and agree a plan to stay safe if you choose to fast.
- Seek guidance from your Imam on alternatives if you decide not to fast.
- If you fast, don't skip Suhoor. Include higher fibre foods like brown basmati rice and dhal to help keep your blood sugars more stable by Iftar.
- Check your blood sugars more often than you usually do, including during fasting. Doing a blood sugar check does not break your fast.
- Break the fast if your blood sugar level is too low (hypo) and treat it with your usual hypo treatments.
- If your blood sugar levels are high break the fast, have some water to drink and treat as you normally would. If necessary speak to a healthcare professional.
- Drink sugar-free and decaffeinated fluids at Iftar and Suhoor.

Search 'Diabetes UK and Ramadan' for more information, videos and leaflets.

Guides available in:
English, Gujarati, Urdu,
Bengali and Arabic

DiABETES UK
KNOW DIABETES. FIGHT DIABETES.

Reduce sweet foods and be mindful of carbohydrate portions. Dates are rich in carbohydrate, so keep to one or two when breaking the fast.

The British Diabetic Association operating as Diabetes UK, a charity registered in England and Wales (no. 215199) and in Scotland (no. SC039136). A company limited by guarantee registered in England and Wales with (no.00339181).
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LIGHTENING THE LOAD

Continuous glucose monitors (CGMs) are a life-changing piece of diabetes technology for lots of people living with diabetes and can take away some of the burden of finger-pricking multiple times a day. Read more about how they work and if you might be eligible for one on the NHS

 A continuous glucose monitor (CGM) lets you check your sugar levels (also known as your glucose levels) without having to prick your fingers. A CGM is a small sensor that sits under your skin, day and night, that reads your sugar levels. This information is then sent to your mobile or another device which is called a reader.

CGMs can take away some of the burden of finger-pricking multiple times a day. Another benefit is that you can set an alarm to sound if your sugar levels go too low or too high. This can also be set up to sound on someone else's mobile phone, for example, a parent or carer's.

How does a CGM work?

A CGM continuously sends your glucose readings to a separate device like a mobile phone transmitted by Bluetooth.

This type of CGM is sometimes called real-time CGM.

You can review what your sugar levels do every minute of the day and night. With charts and graphs, you can start to see and understand how food, activity, and other things affect your sugar levels.

You can share the data with your diabetes team which means they can see your glucose trends over time, as well as your HbA1c. They can also suggest things to help increase your time in range – which is shown every day on your device.

Some CGMs can connect to an insulin pump, which is important if you want to use a hybrid closed loop system. You can find out more about hybrid closed loop systems at diabetes.org.uk/bal-hybrid-closed-loops. Some CGMs can also integrate with a smart insulin pen to enable people to track insulin dosing

data alongside their glucose readings. Read more about smart insulin pens at diabetes.org.uk/bal-smart-insulin-pens

CGMs can either give you sugar readings in real-time, or the sensor can be scanned using your smartphone or a separate device called a reader. When you scan your CGM sensor, this is known as flash glucose monitoring.

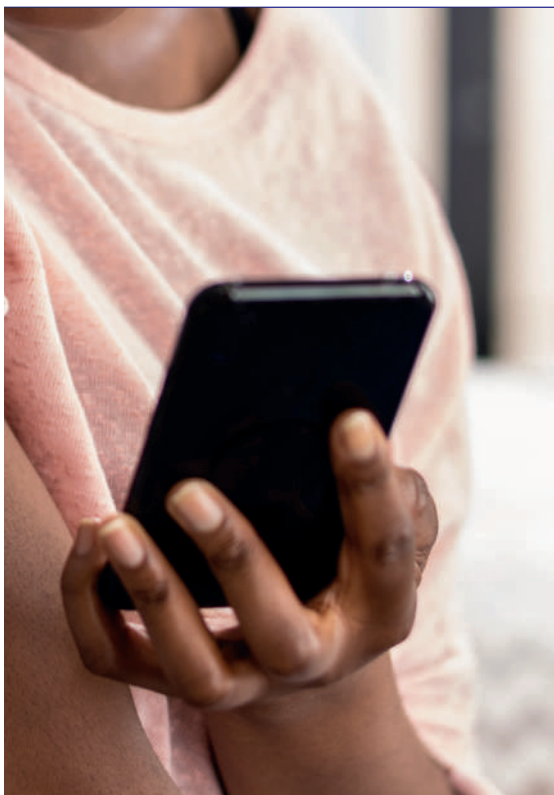
The FreeStyle Libre 2 Plus is the only sensor that works as a flash glucose monitor. It can also work as real-time CGM.

How finger-prick checks differ to CGM readings

A finger-prick check tells you what your blood sugar level is at that moment. With CGMs, what's being measured is the amount of glucose in the fluid surrounding your cells. This is called interstitial fluid. It's not quite as accurate as a finger-prick check as it lags behind blood sugar levels by up to 15 minutes.

The difference between your blood sugar level and CGM reading is more likely to be greater when you're eating or exercising.

Even if you're offered a CGM by your healthcare team, it's important that you



It's also worth knowing that sensors only work for individual products, so sensors for one CGM won't work for another CGM.

If you don't qualify for a CGM, your main option is to self-fund. In some circumstances, you may be able to submit an Individual Funding Request. Speak to your diabetes team for more information on this.

Whatever type of diabetes you have, if you are interested in using a CGM, talk to your healthcare team. They can help you decide if a CGM might suit you and, in some cases, offer advice on different types of CGMs. If you're self-funding a CGM, they cost approximately £50-£150 per month, depending on the device. More information can be found on the manufacturers' websites.

Pros and cons of using a CGM

Diabetes technology can be very positive for diabetes management, but it isn't for everyone. Some people feel uneasy about getting lots of data, and for some people it gives them more confidence.

We've got more information to help you work through these different feelings about using diabetes tech at

diabetes.org.uk/bal-feelings-and-tech. And you can always call our helpline to ask questions or just to talk it through. Alternatively, you could ask your diabetes team for advice or contact the company that makes your CGM.

Help and support with your CGM

You should get CGM training and ongoing support from your diabetes healthcare team.

CGM manufacturers also give support if you need help with the technology or if it breaks, and most have helplines you can call if you're struggling.

■ We have more information about CGMs and other diabetes tech on our website at diabetes.org.uk/bal-tech

■ You can also join the conversation about CGMs and other diabetes tech on our website at diabetes.org.uk/bal-forum

■ If you have any questions about diabetes tech, contact our Helpline on 0345 123 2399 or email at helpline@diabetes.org.uk

still get your diabetes kit on prescription, including your blood glucose meter, to let you do finger-prick checks. You may need to do a finger-prick check, for example, if what you're feeling doesn't match what your CGM reading says. Or if you're treating low blood sugar, also known as hypos or hypoglycaemia, you may want to do one to get the most accurate result.

Can I get a CGM on the NHS?

Generally, people with type 1 diabetes should be offered a CGM and some people with type 2 diabetes who use insulin may also be offered a CGM to help manage diabetes.

If you're pregnant, live in England or Wales and have type 1 diabetes, you should be offered a CGM. If you're pregnant and have type 2 diabetes or gestational diabetes, you may be offered a CGM if you use insulin and meet other criteria.

For more information on eligibility, including criteria if you live in Scotland or Northern Ireland, visit diabetes.org.uk/bal-cgm-nhs

If you get a CGM on the NHS, you should also get the other things you need, like sensors and replacement parts.

Advantages of CGM	Disadvantages of CGM
You don't need to do so many finger-prick checks and you can set alarms if your blood glucose goes too low or too high.	It's not always as accurate as doing a finger-prick check and it can take a while to get used to using the technology.
You can see trends, like when your sugar levels are starting to rise or drop, so you can take action earlier.	You can get overloaded with data, which can confuse or worry some people.
You can get your sugar levels in your target range more often as you have more information about when you're high and low.	You may find wearing the sensor irritating, you might not like the look of it, or showing people that you have diabetes.
You can see what your levels are like at times when you don't normally check, like during the night (by looking back at your own data).	You might get alarm fatigue from your CGM alerts, especially at night.
Your sugar levels can be shared with your diabetes team, so they can review and adjust your diabetes management. It also means that the information can be shared easily during virtual appointments.	

LET'S TALK ABOUT... SUSTAINABILITY



Sarah Harte, our Senior Policy Officer, takes us through the work her team has been doing around sustainability and diabetes care



Over the last few decades, diabetes care and management have improved significantly due to developments in tech and treatment. There have been lots of positive steps towards improving the quality of life for people living with all types of diabetes, but, as a byproduct, the waste that comes with managing the condition has increased. The companies that manufacture disposable insulin pens, continuous glucose monitors (CGM), insulin patch pumps, blood test strips and lancets use single-use plastic. Most of these products are designed to be used once and then thrown away.

As we've started to hear more questions about the environmental impact of diabetes waste, we've started to investigate the problem and what people living with diabetes think. There are two ways we can define sustainability in diabetes care. The first refers to the impact that diabetes-related medical waste has on the environment and the steps that can be taken to reduce it. The second is around the sustainability of people's lives and how the disposal of diabetes medical waste can be made more efficient to improve the quality of life for people living with diabetes. If people don't have the appropriate ways to dispose of their clinical waste available to them, it could just be left sitting around their house. This isn't sustainable for a good quality of life.

Before we can plan for solutions, we need to understand what people living with diabetes think about the issue. We ran some surveys with one of our lived experience groups, and 89% of respondents said they had thought about sustainability at some point during their diabetes management. We also found that people feel powerless to do anything, lack options to recycle their diabetes waste, or aren't sure what they can and can't recycle or reuse. From our surveys, it became clear that change is needed at every level. We need to see change towards more sustainable options from pharmaceutical and tech companies at the product design stage, involving people with lived experience. Recycling infrastructure needs to be improved so there are more options available for everyone – no matter where they live. Some councils have clear processes for disposing of and recycling medical waste, but others don't. There also needs to be clearer guidance and training for healthcare professionals, so that if people have any questions, they know who to go to and get the information they need.

We're still in the very early stages of this conversation, and we're currently gathering as much information as we can to understand the subject and identify the key opportunities for improvement. Once we have that knowledge, we can make decisions about how we use it. Although sustainability is extremely

important, we understand that people living with diabetes already have lots of daily decisions to make, and thinking about the environmental impact of their care might just add to the pile. We all have a responsibility to look after the environment on an individual basis, by recycling waste where we can, for example. However, industry and structural improvements need to be made to reduce the environmental impact of medical waste and improve the quality of life for people living with diabetes.

Recycling schemes

Some pharmaceutical companies, such as Novo Nordisk and Sanofi, run injection pen recycling schemes that allow people to recycle used pre-filled injection pens by sending them back to the company or a participating pharmacy. If you use Novo Nordisk or Sanofi devices and you're interested in learning more, ask your local pharmacy if they take part in the schemes and how you can get involved.

Interested in getting involved in the conversation? Join our lived experience group, **Diabetes Voices Network**, by signing up at diabetes.org.uk/bal-diabetes-voices-network, or email involvement@diabetes.org.uk



“WHAT WOULD A WORLD WITHOUT DIABETES MEAN TO YOU?”

DIABETES UK
KNOW DIABETES. FIGHT DIABETES.

A message from Dr Ildem Akerman,
Diabetes UK-funded researcher.



“If you have diabetes, then you may have imagined a world without the relentless blood sugar monitoring, hypos and injections. Or if your loved one lives with diabetes, you’ll perhaps hope for a world free from overwhelming worries about health complications.

“For research scientists like myself, a world without diabetes is one that can be realised through pioneering studies, leading to new treatments, technologies, and ultimately, a cure.

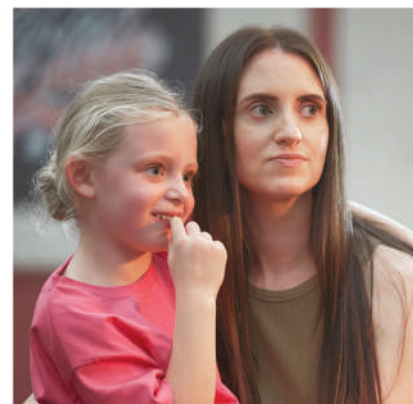
“Yet this future depends on the foresight and generosity of supporters like you.

“My team and I are making lab-grown beta cells that work better to produce insulin, taking us closer to treatments that replace destroyed

or tired beta cells with ones that make enough insulin. This could potentially help people with type 1 and type 2 diabetes to manage their blood sugar levels, protecting them against harmful complications.

“Our research and our determination are relentless. Yet this work is only possible thanks to supporters who chose to imagine a world without diabetes and included a gift in their Will to Diabetes UK to help make it a reality.

“Today, all I ask is that you request a free guide to gifts in Wills to find out more. Discover how you could help future research studies create tomorrow’s world – free from diabetes. Thank you.”



“As a family we have adjusted to Libby’s diabetes... but we still hold on to the hope that one day a cure will be found.”

Jayne, whose daughter Libby has type 1 diabetes

**Request your
free guide to
gifts in Wills**



Simply scan the code opposite, visit **www.diabetes.org.uk/giftsinwillsguide**

or call our friendly Gifts in Wills team on **020 7424 1853**



Hover your phone
over the QR code
to scan



Get your free guide to gifts in Wills and help create a world without diabetes



LIVING WITH UNCERTAINTY

Five people living with diabetes share their stories of misdiagnosis and the impact it has had on their lives

“It was a relief to have answers”

Rosalind, 25, was diagnosed with type 1 diabetes when she was 13. Three years later, she was re-diagnosed with MODY, which is different from type 1 and is caused by a single gene mutation. She says:

When I was initially diagnosed with type 1 at age 13, I had a sense I wasn't quite on track with other people living with diabetes. I was put on insulin, but didn't have a good experience. I was having near-constant hypos, and carb counting was a disaster. My healthcare team said things would get better with time, but after a few years of no improvement, my family started looking into alternative explanations.

After doing their own research, my parents thought I fitted the criteria for a MODY (maturity onset diabetes of the young) diagnosis, so they approached my hospital team to see if I could get tested. After hearing my parents' reasons and doing her own research, my consultant also concluded I was a good candidate for the test. I had the test and at 16 I was diagnosed with MODY, which came with a lot of conflicting emotions. I burst into

tears when my healthcare team told me. On the one hand, it felt like such a relief, but on the other hand, there was a lot of uncertainty because there was no treatment plan available at the time. I was also given a clear warning that, if I decided to have children, there was a 50% chance of them developing MODY.

I was bombarded with a lot of information, which I felt was very adult for someone of my age. I had just finished my GCSEs and hadn't thought about having children. I couldn't really think about anything other than what I was doing at school!

As MODY is caused by a gene mutation, after my diagnosis my dad was also eligible to be tested. He'd been diagnosed with type 2 diabetes in the 1990s, but started doing his own research and thought he might also have MODY. He got tested and came back positive. My older brother also got tested, and the results showed he's a 'non-diabetic carrier', which means he has the genetic mutation, but his blood sugar levels are still in range, and he doesn't have any symptoms. It was a relief for my family to have answers, but it also brought some uncertainty about the future for my brother. For the past nine years since my re-diagnosis, we've been wondering if his diagnosis will manifest itself. As of right now, it hasn't, but it has raised more questions for him.

For the three years following my diagnosis of type 1 diabetes, I was on insulin injections, which I found difficult. My blood sugar levels were constantly going from high to low, and it made me feel exhausted. After I was diagnosed with MODY, I came off insulin completely, and I suddenly had so much energy again. It was like someone had turned my battery on! I switched over to a tablet called gliclazide and took that from the ages of 16 to 21. It worked great for a long time, but when I reached my early twenties, I noticed my blood sugar levels started to rise for no apparent reason. I increased my dosage to compensate, but that caused more intense side effects, especially stomach aches.

My healthcare team said the sudden rise of my levels could have been caused by hormone changes some people experience in their twenties. Because there was no treatment plan at the time, my healthcare team had to draw on research from America on medication that was still in its early days. I was prescribed a drug that ended up working a bit too well, as it lowered my blood sugar levels to a point where I was having constant hypos. I was on that for about six months, but because it wasn't working out, I went back on insulin at 22 and have stayed on it ever since. Overall, my experience with insulin the second time around has been more positive. I was nervous to go back on it at the start, but within about three weeks, I felt way better. I felt like it was the right thing to do, both physically and mentally.

I don't think of myself as having been misdiagnosed with type 1 – I see it more that I was re-diagnosed with MODY. My experience with diabetes has been a massive journey for me, and going into the future, I'd love to see more education about MODY. A lot of the information currently out there is full of medical jargon, and I hope that as we learn more about the condition, more accessible information becomes available.



“I had doubts from very early on”

Dave, 61, was diagnosed with MODY12 about five years ago, following his daughter Aimee’s diagnosis. Initially he was told he had type 2 diabetes. He says:

I’ve been a county councillor for three years. I’m married with two grown-up children, Aimee and Gareth, and I also have seven grandchildren.

Like Aimee and Gareth, who also share their stories of misdiagnosis, I struggled to get the right diagnosis. Before I became a county councillor, I worked in the NHS as a paediatric nurse. I’ve worked with children and young people in quite a lot of capacities – as a swimming coach, and with children and young people with mental health issues.

Until my MODY12 (maturity onset diabetes of the young) diagnosis around five years ago, I’d been living for 15 years with what doctors thought was type 2 diabetes. MODY is caused by a single gene mutation and is different from type 2 diabetes.

I’d had doubts from very early on that I had type 2, but I didn’t know about MODY. I’d been quite fit most of my life and ate healthily, so when I was diagnosed with type 2, I was confused. I think I was in denial for 15 years.

I was put on different types of medication over that period, starting off with metformin, which made me very unwell. After my daughter’s MODY diagnosis (see her story, right), I went to my GP. They didn’t even know what MODY was. I believe that can still happen now. Every time I mention MODY to a different practitioner, they ask: ‘What’s MODY?’ If my daughter hadn’t been diagnosed, I don’t think the doctors would have realised I had MODY.

When I was finally diagnosed with MODY, I was relieved. I could tell myself that the diabetes was something I’ve been born with, it wasn’t anything I



TRIGGER WARNING: This article talks about disordered eating, which some readers may find distressing.

could have prevented. But I also looked at my daughter, and I felt a tremendous amount of guilt and sorrow. I know realistically, it’s not my fault, but you do feel responsible when you’ve passed on a genetic condition.

When I thought I had type 2 diabetes, I struggled with my mental health. I went on silly diets in that 15-year period and became very unwell with bulimia. I was told that if I didn’t turn myself around, it could be life-threatening. So that was a wake-up call, and I got better.

When I thought I had type 2 diabetes, my previous consultant wouldn’t listen to me when I kept saying something wasn’t right. But I then had a new consultant who seemed more open to listening. When Aimee’s diagnosis came through, I let him know, and he knew about MODY. I was tested straight away.

Before my diagnosis, I was also put on the same medication my daughter Aimee was taking for her form of MODY – MODY12, and I started to feel a lot better. Since my diagnosis of MODY, I’ve been on the right medication for my form, MODY12. This condition is often misdiagnosed as type 2 and in some cases type 1, but can be effectively treated with sulfonylureas or increasingly, GLP-1s.

“When I say MODY12, it gives you an idea of how many different forms of MODY there are”

When I say MODY12, it gives you an idea of how many different forms of MODY there are. Mine is one of the rarest forms. I had a 50/50 chance of passing it on to my children, and I passed it on to them

both. One of my grandchildren has it, too.

I’m struggling a bit with my HbA1c at the moment – if I can’t get it down,

the next step would be for me to go on insulin. Being on a CGM is a game-changer as I suffer from a lot of hypos. I recognise them coming on quickly and have good hypo awareness. I pay over £50 every two weeks for a continuous glucose monitor (CGM), while people with type 1 diabetes are prescribed them on the NHS. I find it unfair that people with MODY pay for CGMs. I gave up nursing partly because I couldn’t do my job anymore due to my mental health. I now walk with a stick because I have neuropathy. If I’d been properly diagnosed over 15 years ago, would I be suffering with neuropathy to the extent that I am now?

I believe every person newly diagnosed with diabetes should be offered a genetic test and they should also be offered to people who may have lived with type 2, but feel like their diagnosis is incorrect.

“It’s more about a lack of awareness than rarity”

Aimee, 37, lives with MODY12 and Behçet’s disease. Initially diagnosed with gestational diabetes, Aimee was then told she had type 2 diabetes before she was finally given a MODY12 diagnosis. She says:

I work in aesthetics when I can, though managing Behçet’s disease alongside MODY can be challenging as it flares up unpredictably. Behçet’s disease is rare and causes inflammation of my body’s blood vessels and tissues. The treatment often involves steroids, which can complicate my blood sugar levels and impact my diabetes. I have four children – one has tested positive for the MODY gene, one is currently being investigated, and two have tested negative.

In my early twenties, I was diagnosed with gestational diabetes during my second pregnancy. After my daughter was born, my blood sugar levels remained high for about two years, and I was told I had type 2 diabetes without much investigation. I was slim, healthy, and it didn’t quite fit for me, but with my dad, Dave, also being diagnosed with type 2, I just assumed I was unlucky.

For years, my diabetes was managed with diet. Then, after moving to Cyprus, things changed. During a referral for my daughter’s gastrointestinal issues, a dietitian noticed something wasn’t right with my diagnosis. After hearing my history, she suspected I had MODY and recommended genetic testing.

We moved back to the UK before testing could happen in Cyprus, but the referral was passed on to my NHS GP. By then, my blood sugar levels were worsening. I was switched from metformin to gliclazide, and once the genetic test was approved, it didn’t take long to confirm I had MODY12. After my

diagnosis, the consultant advised me to inform any relatives with diabetes, so I made sure my dad and brother, Gareth, were tested too.

With my own children, the journey’s been varied depending on where we’ve lived. My daughter Amber was tested quickly due to symptoms, even though her HbA1c test results showed her blood sugar levels within the normal range. She showed early signs similar to mine as a child, like frequently going for a wee.

My son Scott was tested around the same time as Amber, but we’ve struggled to get our third child, Johnny, tested. Our youngest child, Jake, had a MODY test, which was negative. It’s been a long and sometimes frustrating journey, but I’m determined to get the right answers for my children.

Before moving to Cyprus, I had never even heard of MODY. But when I was first

diagnosed with diabetes, it didn’t feel to me that it quite made sense. I was healthy, weighed around 50.8kg (8st), swam competitively like my brother, and stayed fit throughout my pregnancy. While I accepted the diagnosis, it felt unfair, but I thought that it was just one of those things.

Looking back, I realise how easily my MODY diagnosis could have been missed. If it wasn’t for that chance conversation with the dietitian in Cyprus, I might still be misdiagnosed. It does make you think – is it something that’s super rare, or a lack of awareness? I think it’s more about a lack of awareness than rarity. One barrier is that genetic testing for MODY is expensive, so it’s not always offered.

Thankfully, I had a very determined doctor who pushed for the genetic test. Without her, I might never have been correctly diagnosed.



“Awareness and access to testing are so important”

Gareth, 41, discovered he had MODY12 after his sister, Aimee’s own diagnosis and genetic testing. But he was initially misdiagnosed with type 2 diabetes. He says:

I’ve worked in international schools in London and Zambia, and I have a strong passion for travel that has shaped much of my career and personal life. After completing my degree, I spent a significant amount of time living and working in various parts of Africa, including Tanzania and Rwanda. I’m now a Headteacher in Cambridge. The journey from my initial diagnosis to the current one was long and, at times, confusing. I was first told I had prediabetes in my late twenties. Given my active lifestyle and background in medical sciences, I was a bit shocked, but I didn’t question it too much.

When my HbA1c test results showed my blood sugar levels had crept up further a year later, I was advised to make lifestyle changes, which did help bring my HbA1c test results down, so I assumed the diagnosis of prediabetes must have been correct. My wife, who’s a doctor, had always encouraged me to get checked out, especially since my dad, Dave, and sister, Aimee, both had diabetes. With that family history, when I was diagnosed no healthcare professional, other than my wife, ever mentioned the possibility of anything other than type 2 diabetes.

“The journey from my initial diagnosis to the current one was long and – at times – confusing”

Things started to change when my sister Aimee was put forward for genetic testing after her return to the UK from Cyprus, and it turned out she had a rare form of MODY – MODY12, which is caused by a gene mutation. I’d never heard of it, and looking back, I realise that most healthcare professionals I saw didn’t seem to know about it either.

Once she was diagnosed, both my dad and I were tested. I was lucky to be in Cambridge, where the process moved quickly. My dad, living in North Wales, had to push a bit harder, but he was eventually diagnosed with MODY12, too – after 15 years of being diagnosed as having type 2 diabetes. For me, getting the correct diagnosis changed everything. We were referred to the genetics team, and my children were tested soon after. Thankfully, none of them have MODY. Given the 50% inheritance risk, we’ve been incredibly fortunate. Looking back, once I had the right diagnosis, everything clicked into place. It explained the inconsistencies, gave me access to proper care, and made it much easier to manage my condition.

But it also made me realise just how important awareness and access to genetic testing are – especially when there’s a clear family history.

From my perspective, one of the biggest improvements I’d like to see in the clinic, is how people with assumed type 2 diabetes are spoken to right from the start. When I was first diagnosed, I felt ashamed. That feeling didn’t come from the condition itself, but from how it was communicated to me. There was an unspoken assumption that it was somehow my fault, that I’d made poor choices or I hadn’t taken care of myself.

When it comes to the diagnosis journey itself, my own re-diagnosis happened quite quickly, and I was lucky in that sense. But I know my dad and sister had a much slower journey, and that delay had real consequences.

I’d say the system needs to be quicker to listen and act when something doesn’t quite fit. That initial openness to alternative diagnoses like MODY could spare people years of unnecessary complications and spare the healthcare system the long-term costs of misdiagnosis.



Words: Martha King and Sabeha Syed. Photography: Nick Dawe

“Living with an uncertain diagnosis is intense”

Robert, 56, was initially diagnosed with type 1 diabetes three years ago and put on insulin. Soon after diagnosis, he was re-diagnosed with type 2, although today lives with an uncertain diagnosis. He says:

My father passed away in October 2021 during COVID, and, obviously, it was already a stressful time in my life.

I started with the usual symptoms for diabetes, like urinating a lot. I'd also lost some weight, but I didn't think it was anything other than stress from losing my dad and having to plan the funeral. So I put it out of

my mind. Then I went for a routine eye test a few weeks after he'd passed away – and

that started my diabetes journey. After examining my eyes, the optometrist recommended I make a GP appointment. The GP did some blood tests and phoned me immediately when the results came in. They told me I had to go straight to A&E. I was on the verge of diabetic ketoacidosis (DKA) as my HbA1c test result was very high. But I didn't feel any symptoms other than the frequent urination and weight loss. The doctor at A&E wasn't sure if I had type 1 or type 2 diabetes. After a few more hours, I was diagnosed with type 2 diabetes, put on medication and referred back to my GP. However, I was referred back to A&E where another doctor said that I definitely had type 1 and put me straight onto insulin – all within the first couple of weeks after my father's passing.

I saw the dietitian and learnt how to inject and check my sugar levels with finger-prick blood tests. I was then given the FreeStyle Libre, which was a game-changer and made managing my diabetes so much easier. I'm very driven, and I've always been very conscious of my diet, eating very healthily. I was a runner and a walker. So I didn't have to change my diet or activity very much. My twin brother was living with type 2 diabetes, so I thought that it was strange that I was being diagnosed with type 1 diabetes at this time. But I resigned myself to the fact that the tests were done and this was what the consultants had diagnosed.

Six months after I went on insulin, my twin brother tragically passed away. He'd been a missing person for three weeks, which was the scariest of times for me and my family. So first my father passed away, and then my twin brother.

“Every year, my consultant questions whether I have type 1 or type 2 diabetes”

That three weeks when he was missing were really awful, and during that period I had a lot of hypos – my blood sugar levels kept fluctuating, which was clearly my body dealing with the ongoing stress. My healthcare team kept trying to adjust my insulin treatment. Then they took me off insulin altogether and put me onto medication for type 2 – metformin and linagliptin, as well as blood pressure tablets and statins.

That treatment stabilised my blood sugars, and I've been fine on those medications ever since. During this time, I was taken off the FreeStyle Libre. Every year that I go to my consultant, it's always the question of whether I have type 1 or type 2 diabetes.

I'm still not officially diagnosed. The consultant that I saw most recently said I definitely have type 1, but I'm type 1 'negative', which means that my antibody test was negative, so they still can't definitively say I have type 1



diabetes. I could be in the 'lean' type 2 diabetes category. I am not sure if I will ever really know.

I stopped working when my brother passed away, and I haven't yet gone back. My focus has been on my health, so I walk between 10,000 and 20,000 steps a day. I make sure that I eat healthily, too. My journey is still evolving, and I feel that it is perhaps hard for others to understand the intensity of living with uncertain diagnosis.

KIDNEY HEALTH AND DIABETES

It's World Kidney Day on 12 March, and being aware of your kidney health is essential to living well. Here, we look at the link between diabetes and kidney disease, and the steps you can take to keep your kidneys healthy

➡ An estimated 7.2 million people in the UK currently live with chronic kidney disease, according to Kidney Research UK. Of those, 3.9 million are thought to be living with early-stage kidney disease, which often shows no symptoms and goes undiagnosed until it progresses to a later stage. Living with diabetes can increase your risk of kidney disease, but with the right support, this risk can be reduced – and if it's spotted early enough, its progression can be slowed down with the right treatment.

What is diabetic kidney disease?

Kidney damage caused by diabetes is called diabetic nephropathy. You might also hear this referred to as diabetic kidney disease. Diabetes can affect your kidneys in two ways. High blood sugar levels cause extra blood to flow through small blood vessels and tiny filters in your kidneys, which can damage them over time. High blood pressure can do this too, and damage to these filters can cause them to leak and not work properly. This causes small amounts of

protein to leave your body in your urine, which is often an early sign of kidney disease. Damage to your kidneys means they can't work properly and will have difficulty getting rid of waste and fluid from your body when you wee.

What are the stages of kidney disease?

There are five stages of kidney disease, ranging from early stage to kidney failure. We look more closely at each stage:

STAGE 1: Your kidney function test, called the estimated glomerular filtration rate (eGFR), is normal but other tests have found signs of kidney damage for example there is protein in your urine.

STAGE 2: Your kidneys aren't working quite as well as they should, and tests may show protein and blood in your urine. For Stages 1 and 2, there may not be any symptoms.

STAGE 3: Kidney damage at this stage is mild to moderate, and your kidneys are beginning to have difficulty filtering waste and extra fluid out of your blood. You might have symptoms, including swelling in hands and feet, dry and itchy



Words: Lucy Evans. Photography: Adobestock

skin, trouble with your sleep, muscle cramps and foamy wee, along with changes in how often you wee.

STAGE 4: Your kidneys have severe damage, and waste products are building up in your blood. Alongside symptoms at Stage 3, you may feel hungry, have swelling in your arms and/or legs, shortness of breath, and feeling and/or being sick.

STAGE 5: Your kidneys have stopped working or are close to stopping. This is called kidney failure and can cause other health problems, such as anaemia and high blood pressure. Alongside the symptoms at Stage 3 and 4, you might also have trouble breathing.

Stages 1 to 3 are known as early-stage kidney disease, and many people experience only mild symptoms or none at all. Stage 5 kidney disease or kidney failure might sound scary, but it can be managed, and people can still live long lives. Only around one in 50 people with kidney disease will experience kidney failure, and most people can manage their condition to prevent or delay it from getting worse.

How is kidney disease diagnosed?

Many people don't know they have kidney disease, as the symptoms aren't always obvious and may only develop once they've reached kidney failure. But early signs of kidney disease can be caught at your regular diabetes health checks, sometimes called your annual review. As part of your review, you'll have a blood test to check how well your kidneys are working, this test is called the estimated glomerular filtration rate (eGFR). You'll also need to provide a urine sample, which will look for unusual amounts of protein in your urine as a sign of kidney disease. This is called your urine-albumin to creatinine ratio (uACR). It's important you attend your annual review and any other diabetes health checks so signs of kidney disease can be picked up and treated early.

To find out more about the health checks you should be getting, visit diabetes.org.uk/bal-care-to-expect

UNDERSTANDING YOUR KIDNEY TEST RESULTS

At your annual review, you should have blood and urine samples taken, which will be sent to a lab for testing. You should get your results in a few days to a week which will probably include a lot of medical terminology, numbers and symbols. This might feel confusing, but it's important you understand what the results mean.

Let's break it down:

- **Blood test:** your blood will be checked for lots of things, including how well your kidneys are working. This blood test will measure the level of creatinine in your blood.
- **Creatinine:** is a waste product that comes from our muscles. Healthy kidneys filter creatinine from your blood and pass it out of your body through your urine. If you have damage to your kidneys creatinine builds up in your blood.
- **eGFR (estimated glomerular filtration rate):** this is most likely the measurement you'll see on your blood results. It may be listed as a measure of ml/min/1.73m² or as a percentage. For example an eGFR of 80ml/min/1.73m² might be shown as 80%. Your eGFR levels can also indicate which stage of kidney disease you have. The higher your eGFR, the better. Your creatinine level, which is measured when your blood is tested, is used to calculate your eGFR alongside other factors such as age, height, weight, and sex.
- **uACR (urine albumin-creatinine ratio):** this urine test looks for protein in the urine which is a sign of kidney damage. When the kidneys are not working as they should, protein that should stay in the body can leak into the urine. Your uACR measures the amount of albumin in your urine compared to the amount of creatinine in your urine.
- **Albumin:** this is a protein made by the liver if your kidneys are working properly, only small amounts of albumin pass from your blood into your urine.

If the results of your blood test or urine sample show signs of kidney damage or disease, your healthcare team will offer advice.

People are less likely to have their urine checked for kidney disease compared to the other diabetes health checks. It can be difficult to provide a urine sample, but it's important you do to make sure any signs of kidney damage are caught and treated early. You might be sent a bottle to wee into at home and drop off at the GP surgery at a later point, or you might have to provide a sample on the day of your annual review appointment. Some people find this stressful and a bit messy. Equally, carrying around a urine sample and finding time to hand it in at the GP isn't always practical.

If you'd rather take the bottle home and do your sample there, ask the healthcare professional at your annual review about this. If you're going to be carrying your urine sample around, make sure the lid is on safely and wrap tissue around the bottle. Your healthcare professional should have provided you with a sealed bag to put the bottle in. If not, put it in a sealed clear bag that you might have at home to prevent spilling.

■ **For more about the diabetes health checks you should be getting each year, visit diabetes.org.uk/bal-health-checks**

kidney health

If you're worried you have symptoms of kidney disease, contact your healthcare team for more information and advice.

How is kidney disease treated?

The type of treatment you'll need for kidney disease will depend on which stage you have. Most people with early-stage kidney disease (Stages 1 to 3) can manage the condition themselves with support from their GP. Your GP might give you medication such as SGLT2 inhibitors, which can slow down the progression of chronic kidney disease. Some people living with type 2 diabetes might already be taking this medication, as they help manage blood

"Kidney failure might sound frightening, but it can be managed, and many people with kidney disease live long, full lives"

sugar levels too. You might also be given other tablets, such as tablets in the class of drugs called ACE inhibitors, or ARBs which work in slightly different ways to reduce blood pressure. These protect the kidneys from further damage.

For people with a later stage of kidney disease (Stages 4 to 5), other treatment options such as dialysis or a kidney transplant are available.

There are two types of dialysis:

- **Haemodialysis:** where your blood is filtered by a machine before flowing back into your body.
- **Peritoneal dialysis:** where your blood is filtered by passing it through the natural lining inside your tummy.

Both types of dialysis can have side effects, such as making you feel tired or sick. But they can also help with the symptoms of kidney disease, such as swelling in your legs and/or ankles and shortness of breath. If you're thinking about dialysis, talk with your kidney team about which option is right for you.

Kidney transplant is when your damaged kidneys are replaced with

a new kidney from a donor. A kidney transplant can improve your quality of life, but it's not a cure. You will still need lifelong medication to keep your body from rejecting the kidney and regular follow-up appointments to make sure your new kidney is working well.

■ **You can find out more about treatments for kidney disease at: [kidneycareuk.org/kidney-disease-information/treatments](https://www.kidneycareuk.org/kidney-disease-information/treatments)**

How can I reduce my risk?

There are lots of things you can do to help protect your kidney health and reduce your risk of kidney disease or slow its progression.

- **Get support to keep your blood sugar levels in target range:** Increasing the amount of time your levels are within target range can help reduce the risk of long-term complications, including kidney disease.
- **Keep blood pressure down:** High blood pressure can lead to kidney damage. A healthy, balanced diet and staying active can help manage blood pressure.
- **Reduce your salt intake:** A high-salt diet can contribute to high blood pressure. Aim for no more than 6g of salt a day, about one teaspoon.

Check food labels and choose options that have lower salt content.

■ **Keep as active as you can:** Being active improves overall health, which may help your kidney function. Regular physical activity can be as effective as treatments for people with diabetes. It can help improve your blood pressure and prevent the risk of developing kidney disease. Read our exercise advice at [diabetes.org.uk/bal-exercise](https://www.diabetes.org.uk/bal-exercise)

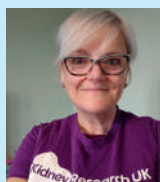
■ **Stop smoking:** If you're a smoker and have diabetes, giving up can help improve your health and reduce risk of long-term complications. Giving up can be hard, so speak to your GP or practice nurse for ways they can support you in quitting.

■ **Eat well:** A healthy, balanced diet helps reduce your risk of kidney disease as it can lower blood pressure and cholesterol levels. Aim for five portions of fruit and veg a day with some starchy foods like wholegrain bread, wholewheat pasta and oats. It's also important to eat protein foods every day, like oily fish, beans and pulses, or a small handful of nuts and seeds. Ask for a referral to a dietitian for individualised advice.

■ **For our updated booklet on kidney disease and diabetes, visit: [diabetes.org.uk/bal-shop-kidneys](https://www.diabetes.org.uk/bal-shop-kidneys)**

ANGELA'S STORY

Angela Riley, Glasgow, lives with type 2 diabetes and was diagnosed with Stage 3 chronic kidney disease (CKD) in 2020. She says:



I was diagnosed with type 2 around my 29th birthday after showing the usual symptoms of feeling tired and thirsty. I was told that kidney disease could be a complication of diabetes, but that was the only time it was mentioned. My diabetes wasn't well-managed for some time. About seven years ago, my treatment changed and my management improved. I lost 4 stone and felt so healthy. Then COVID hit and everything changed. I was signed off work due to

depression and wasn't exercising as much or eating as well.

My GP thought it could be heart failure, so I was sent for cardiac tests which indicated it could be kidney issues. I had a hospital scan and was told my eGFR numbers. Kidney disease wasn't mentioned, but when I did my own research I had an idea it could be CKD. I wasn't aware of the damage diabetes had been doing to my kidneys for years.

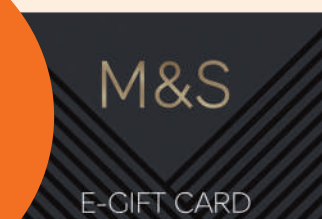
I'm now on haemodialysis three times a week but this is a treatment, not a cure. I'm a community ambassador for Kidney Research UK. I'm passionate about campaigning for better education and knowledge around kidney disease in Scotland as there's no official policy or strategy to combat chronic kidney disease. This needs to change. I've spoken at Scottish Parliament to urge the government to do more to tackle kidney disease and I hope we see movement in this area. If I'd had more information about diabetes and kidney disease after diagnosis, I might not be in the position I'm in now.

CROSSWORD

TO ENTER:

Send the grid to the Balance
address – Diabetes UK, 126 Back
Church Lane, London E1 1FH.
See T&Cs, below.

WIN!
M&S gift card
WORTH
£50



ACROSS

- 1** Large spread, impressive display (5)
- 6** Elevated railway (8)
- 7** Ring (4)
- 9** Bitter herb (3)
- 10** Tiller (4)
- 12** French brandy (6)
- 13** Scottish plaid design (6)
- 15** Tradition (6)
- 17** Panacea (6)
- 18** Matryoshka, Russian - - - (4)
- 20** Biblical teacher (3)
- 21** Egyptian cross (4)
- 22** One of Jason's crew (8)
- 23** Plasterer's trowel (5)

1				2			3		4		5	
						6						
7		8			9				10			11
12							13			14		
15			16				17					
18	19				20				21			
22												
							23					

Name _____

Address _____

Postcode _____

DOWN

- 1** Vinegar constituent (6,4)
- 2** Figure skater's spinning jump (8)
- 3** Number in theatre? (12)
- 4** Legendary king, son of Uther Pendragon (6)
- 5** Herb used in pickling (4)
- 6** Lancashire estuary (9,3)
- 8** Largest city of Nigeria (5)
- 11** Supporter of royalty (10)
- 14** Poison, venom (5)
- 16** Candle-making material (6)
- 19** Pod used in Cajun cuisine (4)
- 21** Shrinking inland Asian sea (4)

SOLUTION for last issue's crossword:

ACROSS: 1 Lancet, 4 Flora, 9 Succour, 10 Caber, 11 Harmonium, 12 Ecu, 13 Fugue, 16 Marc, 19 Ulan Bator, 21 Rider, 22 Vaccine, 23 Index, 24 Remedy. **DOWN:** 1 Lustre, 2 Nectar, 3 Epoch, 5 Lactose, 6 Rabbit, 7 Prerogative, 8 Grime, 13 Fabergé, 14 Quark, 15 Lardon, 17 Alpine, 18 Celery, 20 Ruche.

T&Cs: 1. Opens 28 February 2026. 2. Closing date is 14 May 2026. 3. The prize is a voucher for Marks & Spencer, worth £50. 4. Open to UK residents aged 18 and over. 5. Promoter: The British Diabetic Association operating as Diabetes UK (English charity no 215199 and Scottish charity no. SC039136), Wells Lawrence House, 126 Back Church Lane, London E1 1FH. 6. Go to diabetes.org.uk/bal-comp-terms for full T&Cs.



SPRING-CLEAN YOUR FITNESS

As we move into better weather and longer days, we give you tips to refresh your fitness and ideas for keeping physically active while making the most of being outdoors

➡ It's estimated that just 24% of people in the UK regularly take part in physical activity in the winter, while 45% do in the summer, according to one fitness report. But as the days begin to lengthen and the weather gets warmer, now is the perfect time to get more physically active. So where's best to start if you haven't been physically active for a while? And how can you keep the spring in your step, whatever the season?

Getting started

The benefits of moving more can't be underestimated. Physical activity can help people maintain (or regain) a healthy weight, build muscle mass and boost circulation, flexibility and

SIX WAYS TO PUT SOME SPRING BACK INTO PHYSICAL ACTIVITY

1. ALL IN THE PLANNING

The first thing I always say to people is to plan properly. If your aim is to walk more, don't go all out for those 10,000 steps on day one. Slowly build up and plan your routes so that you can include things like shops, parks and local beauty spots in your walks. You can build it into your daily routine by committing to walking to the shops and getting friends involved by arranging to go together.



2. CHART YOUR PROGRESS

This can be a great way to keep on track and spur you on to try new things. Set out your plan and make a note of the physical activity you do each day, and you'll soon see how things add up. Most smartphones can track things like footsteps and movement throughout the day.



3. HIT OUTDOOR GYMS

You could even include visits to local outdoor gyms in your walk. There are thousands of these facilities in public spaces across the country, and they are completely free to use. The machines usually display instructions for how to use them, but you can also find them easily online. Outdoor gyms can be a great way to incorporate resistance training into your routine, helping you build strength and muscle mass. Search your local council website to check whether it has a list of where you can find outdoor gym equipment in your area.



Neil, our Senior Physical Activity Advisor, shares his top tips...

4. TRY COUCH TO 5K

This NHS programme is a step-by-step nine-week plan culminating in a 5K jog. It's a great way to slowly and sustainably build up fitness levels after periods of inactivity. It can be particularly beneficial if you have diabetes because it allows you to learn how moving more affects your blood sugar levels. It can also help you build strategies for managing your diabetes during physical activity through trial and error. The app is on the NHS website.



5. JOIN A FITNESS GROUP

Whether it's dance classes or group walks, there's no shortage of community fitness initiatives across the UK to help make getting fit more sociable. Having people around you while exercising can provide the support many people need when trying something new. It can also help give people living with diabetes reassurance. Most groups cater for all fitness levels.



6. CHECK OUT THE DIABETES UK WEBSITE

There's no shortage of resources for people who are looking to move more on the Diabetes UK website, from short fitness workout videos to put you through your paces, to inspiring stories about how our members have improved their health and put a smile on their faces by becoming more physically active. There are exercise videos for people with mobility issues, too. You can also find out how to take part in fundraising events for Diabetes UK.

■ Visit diabetes.org.uk/living-with-diabetes/exercise



mood. Crucially, if you're living with diabetes, it can also help your body use insulin more effectively and lower blood sugar levels.

But refreshing your exercise routine can have its challenges, particularly if you haven't been active for a while. "Getting started can be the hardest bit," says Neil Gibson, Diabetes UK Senior Physical Activity Advisor. "If you have diabetes, it can feel overwhelming because of concerns about blood sugar levels, but the benefits of moving more outweigh the risks."

Neil advises that people who have diabetes should consult their healthcare team before getting more physically active. It's also important to

fitness

keep a close eye on blood sugar levels and treat accordingly before, during and after any physical activity. And Neil also stresses that the 150 minutes of exercise the NHS says we should all be doing a week needn't mean pounding the pavements or pumping iron.

"The key is to make it manageable and enjoyable," he explains. "Start small, build things up gradually and set achievable goals. It's also important to remember that you don't need to join a gym or enter a marathon to hit your goals. Activities like walking, gardening or even doing the housework count as exercise and physical activity – if you're raising your pulse and working your muscles."

"The key is to make it manageable and enjoyable"

It's not just your body that will benefit, either. Exercise can help improve mental health, thanks to the release of so-called 'happy hormones' during physical activity. Being out in the sunshine from late March or early April to the end of September can help most people make all the Vitamin D they need along with a healthy, balanced diet. As little as 10 minutes of moderate exercise can be enough to boost mood, one study has found. Another found

that your smile will last longer if you're active for 45 minutes or more, at least three times a week.

Team effort

Getting outside in the sunshine and exercising with others helps to raise the spirits, too," adds Neil. "Speak to friends and neighbours if you want to get out and walk more. And if you're interested in joining a local exercise class or gym, why not ask a friend to come with you to see what it's like?" he suggests. "Having people you know join you helps take away that fear of the unknown when you're trying something new, and can help motivate you to continue in an activity as it becomes a habit. Getting involved in walking groups or class activities is also a great way to meet new people and helps give people who have diabetes reassurance."

As well as ensuring you keep a close eye on blood sugar levels, and that you have hypo treatments and insulin available if needed during physical activity and exercise sessions, make sure that at least one person you're with is aware of your diabetes and knows what to do in an emergency, Neil advises.

"Ideally, if you're heading out alone," he says, "ensure you've told someone where you're going and that you have a charged mobile phone on you. It's also

"Having people you know join you helps take away that fear of the unknown"

important to know that the weather can affect blood sugar levels, so make sure you check the forecast before heading out and pack warm and waterproof clothing if needed."

Keeping hydrated is also important, especially in hot weather and when being active for long periods. Water is a suitable drink. The right footwear and looking after your feet is also a priority as blisters and abrasions can take longer to heal for people with diabetes. Regularly check your feet, and wash and moisturise them.

Gaining access

Most activities can be adapted for people who have mobility issues. Organisations such as Ramblers (ramblers.org.uk), the Canal & River Trust (canalrivertrust.org.uk) and the British Mountaineering Council (thebmc.co.uk) work to maintain hundreds of miles of accessible footpaths without physical barriers across the UK. So check their websites.

"Mobility issues can make things more difficult for people as they try to move more, but there are ways to overcome these," explains Neil. "Try building seated exercises into your daily routine or making the effort to get out and about more – there are plenty of tips and resources to help people do this on the Diabetes UK website," says Neil. "Being out in nature with friends benefits everyone both physically and mentally."

And the more you do it, the less likely you are to want to stop when the days start getting shorter and the weather starts to get colder.



SPEAK WITH YOUR HEALTHCARE TEAM

It's good to be active, but it also needs to be done safely. Before trying any new physical activity or exercise, including those you do at home, it's important to check with your healthcare team first. They can help you decide what's safe and consider any complications you have.

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Our families can be a great support network when life gets tough. If you live with diabetes and feel able to reach out to yours when things feel difficult, it can make all the difference

LEAN ON ME



Diabetes not only affects you physically but emotionally as well. If your emotional health is struggling, it's important you have a strong support network to lean on. For many of us, the first people we turn to in difficult times are our family. But there may be other people in your life who aren't related to you, who feel like your family, too. Positive family relationships can provide a safe space for us to be honest about our thoughts and feelings. This can help reduce symptoms of stress, anxiety, loneliness, and depression. But opening up about diabetes isn't always easy, and it's important to know how to start that conversation, how your family can best support you, and when to turn somewhere else for help.

A basic understanding can help

Many people have lived with their family at some point in their lives, so there's a chance they've seen how you manage your diabetes day to day. Having a basic understanding of your diabetes might help them better understand your feelings. If your family doesn't know much about diabetes and how you manage it, or you're newly diagnosed, you don't have to explain everything right away. Think about the topics that are most important to you and explain these to them in simple terms, bit by bit. You could also encourage them to do their own research by visiting our website (diabetes.org.uk). They won't need to know everything, but providing them with some information might help them feel better placed to support you.

How to start the conversation

Opening up to family when we're struggling can feel daunting, but it's important to remember they're on your side and want to help. Before approaching a family member, think about what you'd like to talk about. It might help to jot some things down, so you don't forget them. It's also important to think about anything you'd rather not discuss. You can choose how much to share, and you

don't need to tell them everything if you don't want to.

Once you've decided what you want to share, you'll need to approach a family member to start the conversation. This can feel difficult, and you might be wondering about the best time and place to do it. There may not be a perfect time to talk about your emotional health, but it can help if you're somewhere quiet and comfortable. If you're talking to a family member, this might be in the home you share, or your or their home if you live separately. Talking about your diabetes in a familiar, private setting might help both of you feel more comfortable being honest and talking openly.

It can sometimes be difficult to go undisturbed if there are other family members around. If that's the case, try going on a walk somewhere quiet with the person you want to speak to. Walking can encourage us to be vulnerable as it provides a relaxed atmosphere and helps calm our nervous system.

During the conversation

Sometimes conversations are overwhelming for everyone, and it might be a lot for your family to process. Reassure them that they can ask you questions to help them better understand how you're feeling, even if that's at a later point. They might want some time to think about what you've shared and come back to you with questions or anything else they want to talk about.

If your family feels able to offer support, let them know how they can do this. This might be wanting to talk to them more for ongoing support. Or you might feel one conversation is enough. You might find you need a bit more than a listening ear. There are more practical ways your family can help you that can have a positive impact on your wellbeing and help you feel less alone:

■ **Attend appointments with you – for**

“You can choose how much to share, and you don't need to tell them everything if you don't want to”

some people, appointments can be a cause of anxiety so you might feel more at ease if you bring someone with you.

■ **Make time for exercise – physical activity releases endorphins, which can reduce stress levels and improve low mood. Exercising with someone else can help encourage us to move more and feel better connected to each other. Read more about exercise and diabetes at diabetes.org.uk/bal-exercise.**

■ **Meal prep together – eating a healthy, balanced diet nourishes our brain and can help boost our mood. Set aside some time to plan and make healthier meals with your family. If you live separately, consider joining them for their weekly food shop and choose healthier options together. You can find lots of advice for eating well on our website diabetes.org.uk/bal-eating-and-diabetes**

■ **Make time for self-care – planning time outside of your busy schedule and responsibilities to focus on yourself can help boost your wellbeing. Ask a family member if they want to do a relaxing activity together, such as making art or going on a walk. Or even get the family together and enjoy a day out somewhere. This might help you feel more connected to your loved ones and take your mind off diabetes for a bit.**

Although your family may not be mental health professionals, you might find you just need space to vent rather than being offered advice. Having someone who's there for you to listen to your concerns is already a big help.

You can read more about talking about your diabetes on our website at diabetes.org.uk/bal-talking

Support for your family

Sharing your feelings with your family may help them to understand how they can best support you. And it's important they feel they're in the best position to do so. When life is busy and we're thinking about others' needs too, it can be easy to forget about ourselves. It's important for everyone supporting someone with diabetes to look after their own wellbeing too.





It can be easy for a family member to get into the habit of supporting you alone, but it might be good for them to ask other family members for help to ease any stress they might be feeling. If you feel comfortable talking to more than one family member, try sharing your feelings with them as well. Talking to a few people might prevent one person feeling too much pressure, and hearing different perspectives can provide you with more tools for understanding and managing your emotional health. You may also want to consider turning to friends for support, if that feels appropriate.

If your family need extra support, encourage them to reach out. There are lots of families supporting people with diabetes going through the same thing, and that can be a big help. Our online forum is very popular with partners and family members supporting people with diabetes. It can be used to share tips, get advice, or even just to have a chat. Sign up at diabetes.org.uk/bal-forum

Our helpline is also available for advice and support. Our team of highly trained advisors have extensive knowledge of

“Hearing different perspectives can provide you with more tools for understanding and managing your emotional health”

WHEN TO LOOK ELSEWHERE FOR HELP

Your family can be a great support network in difficult times, but there might be some issues they aren't able to help with.

There might be times when you need professional support to help with more serious or complex emotional problems. For example, if you or your family are concerned you're developing disordered eating behaviours, or an eating disorder, you'll need specialist help. You might also need this if you're experiencing depression, hypoa

anxiety, or diabetes burnout. If you think you need professional support for an emotional health issue, you can still talk to your family about it. They might not be able to offer advice, but they can support you with taking the first step to getting help. Your diabetes team are there to support you with all aspects of your diabetes, so talk to them about how you're feeling. They'll be able to offer advice or refer you to specialist psychological support if needed.

If you feel worried about taking this first step, ask a trusted family member if they can attend your appointment with you. They might not be able to offer practical help, but having a familiar face there could make you feel more comfortable. If you're feeling nervous and worried about not remembering the information you're given, your chosen family member can help remember what you've been told or even take notes on your behalf.

diabetes and can provide specialist information and advice. They also have counselling skills and are there for a chat if you need it. Call 0345 123 2399 or email at helpline@diabetes.org.uk

You can also encourage family members to join one of our local support groups. We have active groups across the UK who meet regularly to offer understanding, help and support to others in a similar situation. These are open to people living with diabetes and those who support them. Find your local group at

diabetes.org.uk/bal-local-groups

There are lots of ways your family can provide emotional support if you're struggling, and taking that first step towards asking for help can make it easier to do so again in the future. Even though it might feel difficult, remember your family want to help you as best they can.

For more information about providing emotional and practical support for someone with diabetes, visit **diabetes.org.uk/bal-support**





Caron Board, 68, has supported her husband with his type 2 since his diagnosis with dementia in 2023. Here, she explains how she balances her needs with caring for someone with two health conditions

1 It's hard to separate both conditions

When my husband, Donald, now 85, got his mixed dementia diagnosis in April 2023, I soon realised that I couldn't separate the condition from his type 2 diabetes. If he has either high or low blood sugar levels, he gets more confused now that he has dementia. And his appetite has also changed, so it makes carb counting more difficult when I'm helping him with his insulin doses. So I feel as if both conditions I'm supporting him with are closely linked because they have an impact on each other. The other problem with Donald's diabetes is that he doesn't get any hypo warning signs. So it's a constant case of keeping an eye on his blood sugars and making sure he takes the correct dose as it's complicated for Donald to manage his diabetes now.

2 Diabetes tech and routine are key

Routine is definitely important for Donald – not only for his dementia, but also to help us manage his diabetes.

Donald is on a CGM (continuous glucose monitor), which helps me in managing his blood sugar levels. I prepare his smart insulin pen, and his healthcare team has supported me on the doses to make it easier to manage. At the moment, Donald can inject himself. Although he has lived with his diabetes for over 20 years, injecting is more of a challenge for him now. He forgets as soon as he's had his insulin dose.

The smart insulin pen is brilliant, as I can look at it and see that he's taken his dose and how long ago. Or that he hasn't remembered to take it. That's the good thing about using a smart insulin pen. But the other day, when I came in, Donald didn't know how to change the cartridge, and he'd just left it. Now I'm arranging for a care agency to support me so that I can go out, but paid carers aren't able to administer insulin without training. So we'll have to see how that works out and also if Donald copes OK.

3 Taking care of myself

I was diagnosed with prediabetes, so I'm mindful that I need to keep physically active and have a healthy, balanced diet. Now I'm better at making sure I get out for a walk. It's good for my physical and mental health. I know I need to do something to look after myself because supporting someone with dementia, alongside their diabetes, can affect you emotionally. Seeing Donald's health deteriorate is very difficult.

I am part of a carers support group where we can talk about our experiences as carers and let off steam. It's nice to get together and chat. Sometimes there are things to share, but just having time to forget everything and to support each other as carers is so important. I come away recharged and mentally refreshed. Having your own network of support is vital when you're caring for someone.

4 I've learnt to let things go

Donald has also become more resistant to change in routine, which can be challenging when I'm trying to support him in managing

his diabetes. Accepting care from the care agency is also something he's resisting.

I no longer let little things bother me. It was something I learned from the support group. Now that Donald has dementia, he becomes convinced that I haven't given him his insulin dose and that the smart pen is wrong. But there is no point in arguing because it's not going to change anything for me – Donald still has dementia and diabetes. And all arguing would do is wind us both up, and it doesn't get us anywhere. It's made me more tolerant and understanding of other people, too.

Faking it!

Serve up these healthier and cheaper twists on your go-to takeaways

Vegetable and prawn pad Thai

Serves 4 | Prep: 15 mins |

Cook: 12–15 mins

GLUTEN FREE

- 5 tbsp low salt, gluten-free hot vegetable stock
- 2 Medjool dates, deseeded and finely chopped
- 2 tbsp low salt gluten-free soy sauce
- 1 nori sheet, ground to a powder (see Cook's tips)
- 2 red chillies, deseeded and finely chopped
- 1 tbsp no-added-sugar crunchy peanut butter
- 200g dried instant flat rice noodles
- 1 tbsp vegetable oil
- 2 medium carrots, peeled and cut into thin matchsticks
- 1 red pepper, cored, deseeded and cut into thin strips
- 150g fresh bean sprouts, rinsed and drained
- 2 garlic cloves, peeled and crushed
- 1-inch piece fresh root ginger, peeled and finely grated
- 1 bunch spring onions, trimmed and cut into 1-inch pieces
- 2 pak choi (250g), trimmed, white bulb sliced and leaves roughly torn
- 200g raw king prawns, thawed if frozen
- 1 medium egg, lightly beaten
- 1 tbsp fresh torn coriander leaves
- 1 lime, cut into wedges

1 Place the stock, dates, soy sauce, nori powder and half the red chillies into a food processor and whizz to a paste. Stir in the peanut butter.

2 Cook the noodles according to the pack instructions, then drain and set aside.



COOK'S TIPS

- Use a spice grinder to grind the nori sheet to a fine powder, or a pestle and mortar. Or tear the nori sheet into small pieces.
- Use brown rice noodles to increase fibre.

3 Heat the oil in a wok and add the carrots and pepper, and stir-fry for 3 mins. Add the bean sprouts, garlic, ginger, spring onions and pak choi, and stir-fry for a further 2 mins. Push the vegetables to the side and add the prawns so that they have full contact with the wok. Cook for 2 mins, stirring continuously until the prawns lose their translucence and turn pink. Pour over the peanut sauce and cook for 1–2 mins.

4 Add the noodles and toss well until they are well coated in the sauce and the ingredients are well combined. Push the noodles to one side of the wok and drizzle the egg into the other side and cook, stirring for 1–2 mins until set and

no runny egg exists. Mix well through the noodles.

5 Serve scattered with the coriander, remaining chillies and lime wedges to squeeze over.

PER SERVING 421g

CARBS
41.2g

CALS
319

Sugars	Fat	Sat Fat	Salt	Protein	Fibre
13.5g	7.8g	1.1g	1.37g	17.9g	6.1g

2 portions of fruit and veg



Margherita pizza with cauliflower base

Serves 4 as a lunch |
Prep: 20 mins | Cook: 50 mins

VEGETARIAN | GLUTEN FREE

- Light vegetable spray oil
- 1 medium cauliflower, including stalks and leaves (about 750g), roughly chopped
- 20g vegetarian hard cheese, finely grated
- 2 medium eggs, lightly beaten
- 2 tsp dried Italian seasoning
- 1 tsp dried oregano
- 4 tbsp tomato passata with garlic
- 2 tsp sun-dried tomato paste
- Handful baby spinach leaves
- 8 cherry tomatoes, halved
- 125g half-fat soft mozzarella, torn

- Freshly ground black pepper
- 10 fresh basil leaves (optional)
- Pinch chilli flakes (optional)

1 Preheat the oven to 200°C/fan 180°C/gas 6. Line a large baking tray with non-stick baking parchment and spray with a couple of pumps of spray oil.

2 Place the cauliflower into a food processor and blend until finely chopped and resembling 'rice'. Tip into a clean tea towel and twist to squeeze out as much liquid as possible. Tip the cauliflower into a bowl and stir in the Parmesan cheese, egg and Italian seasoning, and mix well. Tip the cauliflower mixture into the centre of the prepared baking tray. Place a piece of cling film over the top and, using a rolling pin, roll the mixture into a 30cm x 20cm oval shape. Discard the cling film and bake for 30–35 mins.

3 Carefully lay another baking tray over the baked pizza base. Flip over, peel off the baking paper, then return the base to the oven for 10 mins.

4 Preheat the grill to high. Mix the passata and tomato paste together, and spread over the pizza base. Run the spinach leaves under cold water. Shake off any excess water and scatter over the passata mix with the cherry tomatoes and mozzarella. Season with freshly ground pepper and grill for 4–5 mins until the cheese has just started to melt.

5 Serve scattered with the fresh basil leaves and chilli flakes, if using. Serve with a large green salad.

PER SERVING 295g

*Large green salad not included

CARBS
10g

CALS
189

Sugars	Fat	Sat Fat	Salt	Protein	Fibre
6.9g	8.1g	4.0g	0.44g	17.1g	3.9g

2.5 portions of fruit and veg



COOK'S TIPS

- Make sure you cook the mince until steaming hot all the way through (no pink inside).
- Always wash hands before and after handling raw meat. Use separate utensils and chopping boards when preparing it. When shopping for raw meat, refrigerate as soon as possible after buying it.
- Refrigerate cooked meat promptly and reheat until piping hot.

Bunless burgers

Serves 2 | Prep: 15 mins, plus chilling time | Cook: 25 mins

- ½ tbsp olive oil
- 3 large field mushrooms (about 200g), very finely chopped
- 2 garlic cloves, peeled and crushed
- Small handful fresh flat-leaf parsley, (about 10g) finely chopped
- 150g lean beef steak mince 5% fat
- ½ tsp ground black pepper
- 1 slice (40g) wholemeal bread, made into fine breadcrumbs
- A few pumps spray oil
- 2 tbsp reduced-fat soured cream
- 1 tbsp sriracha
- 4 outer larger leaves iceberg lettuce
- 1 large beefsteak tomato, cut into 4 thick slices
- ½ large red onion, thickly sliced
- 2 slices pickled sandwich gherkins (45g)

- 1** Heat the oil in a large shallow frying pan and fry the mushrooms over a high heat for 4–5 mins, stirring frequently until softened and any excess moisture is cooked off. Stir in the garlic and cook for 1–2 mins. Tip the mixture into a bowl and allow to cool. Stir in the parsley, minced beef, pepper and breadcrumbs, and mix until well combined.
- 2** Divide the mixture into two and shape into burgers, place on a plate and chill well for at least 2–3 hours. This allows them to firm up and will make cooking them easier.
- 3** Preheat a barbecue or griddle pan. Spray the burgers with a few pumps of spray oil. Cook the burgers for 7–8 mins on each side until steaming hot all the way through (no pink inside) and pleasantly charred with bar marks (see Cook's tips). Try not to keep turning or moving them around, as they are fragile and might break up.
- 4** While the burgers are cooking, mix together the soured cream and sriracha.

- 5** Lay two lettuce leaves on a board and top each with one slice of tomato, the burger, a drizzle of sauce, a few onion rings, a pickled gherkin slice and the remaining tomato slice. Wrap the lettuce around the ingredients, tucking it in where necessary. Arrange the remaining lettuce over the top and wrap around to seal. Wrap the bottom of the burger in a napkin – this will make it easier to eat.

PER SERVING 416g

CARBS
17.7g

CALS
255

Sugars	Fat	Sat Fat	Salt	Protein	Fibre
7.9g	9.2g	3.2g	0.86g	22.8g	5.3g

2.5 portions of fruit and veg

Tuna and ginger poke bowl

Serves 1 | Prep: 10 mins |
Cook: 20 mins

DAIRY FREE | GLUTEN FREE

- 50g brown long grain rice
- 75g frozen edamame beans
- 1 spring onion, trimmed and shredded
- 1 tsp black sesame seeds
- 1 medium carrot, peeled
- 1 baby cucumber (about 30g), trimmed and cut into chunks
- 2 radishes, thinly sliced

- 30g baby spinach leaves
- 1 tsp reduced-salt gluten-free soy sauce
- 1 tsp toasted sesame oil
- 1 tsp fresh grated ginger
- 1 tsp fresh lime juice
- Freshly ground black pepper
- 125g can tuna in spring water, drained (85g drained weight)

1 Cook the rice in a pan of boiling water for 15 mins. Add the edamame beans and cook for 5 mins until the rice is just tender. Drain well and stir in the spring onions and sesame seeds. Pile into a shallow serving bowl.

2 Using a peeler, peel long, thin strips from the carrot and arrange in a pile by the side of the rice. Add the cucumber,

radishes and spinach to the bowl.

3 In a small bowl, whisk together the soy sauce, sesame oil, ginger and lime juice, and season with freshly ground black pepper. Stir in the tuna and pile into the bowl. Serve immediately.

PER SERVING 475g

CARBS
33.5g

CALS
324

Sugars	Fat	Sat Fat	Salt	Protein	Fibre
5.6g	7.0g	1.1g	0.8g	28.7g	6.1g

3 portions of fruit and veg



Jerk chicken curry

Serves 4 | Prep: 15 mins, plus marinating time | Cook: 1 hr 10 mins

DAIRY FREE | GLUTEN FREE

For the jerk marinade

- 1 bunch spring onions, trimmed and roughly chopped
- 1 medium scotch bonnet chilli, roughly chopped
- ½ tsp coarse ground black pepper
- ½ tsp ground cinnamon
- ½ tsp ground nutmeg
- 3 garlic cloves, peeled and crushed
- 1-inch piece fresh root ginger, peeled and finely grated
- 2 tbsp fresh thyme leaves
- 1 tbsp reduced-salt gluten-free soy sauce

- 1 lime, finely grated rind and juice
- 6 tbsp freshly squeezed orange juice
- 1 tbsp white wine vinegar

For the curry

- 4 small skinless chicken thighs
- 4 small skinless chicken drumsticks
- 8 new potatoes (about 225g), halved
- 1 red pepper, cored, deseeded and diced
- 200g spring greens, roughly chopped
- 400g can chopped tomatoes
- 150ml boiling water

1 Place all the marinade ingredients into a food processor and whizz to a coarse paste.

2 Slash the chicken thighs and drumsticks a few times with a sharp knife and arrange in a large deep ovenproof dish. Pour over the marinade and toss well to coat. Cover and leave to marinate in the fridge for at

least 2 hours or overnight if possible.

3 Preheat the oven to 190°C/fan 170°C/gas 5. Cook the chicken for 25–30 mins until beginning to char and cooked through, and no pink juices appear when pierced with a fork.

4 Scatter over the potatoes, pepper and spring greens. Mix together the tomatoes and water, and pour over. Cover the dish with foil and bake for 40 mins.

PER SERVING 493g

CARBS
9.8g

CALS
306

Sugars	Fat	Sat Fat	Salt	Protein	Fibre
8.8g	13.8g	3.8g	0.71g	33.4g	4.9g

2 portions of fruit and veg





Cinnamon stewed apples

Serves 2 | Prep: 10 mins |
Cook: 20 mins

VEGAN

- 2 Gala apples, unpeeled and cored
- 1 tsp ground cinnamon
- 1 tsp granulated sweetener, optional (see Cook's tip)
- Finely grated rind and juice of 1 large orange
- 6 tbsp water
- 6 tbsp no-added-sugar, dairy-free plain yoghurt
- 1 tbsp (20g) chopped walnuts

1 Use an apple corer to remove the core from each apple. Then cut into slices about 1–1½ cm thick. Arrange in a large non-stick frying pan. Sprinkle over the ground cinnamon and sweetener, if using – see Cook's tip.

Pour over the orange juice and water, and bring to a simmer. Cover and simmer over the lowest heat possible for 15 mins until softened but still holding their shape.

2 Remove the apples, set aside and cover to keep warm. Bring the pan juices to the boil and cook until reduced to about 2 tbsp.

3 Meanwhile, mix the orange zest with the yoghurt. Serve the stewed apple rings with the orange yoghurt. Scatter with the walnuts and drizzle with the reduced cooking liquor.

PER SERVING 240g

CARBS
16.5g

CALS
165

Sugars	Fat	Sat Fat	Salt	Protein	Fibre
16.4g	8.4g	1.1g	0.05g	4.5g	3g

1 portion of fruit and veg

COOK'S TIP

Have a little taste of the apple before cooking. If it tastes sweet, you will not need to add the sweetener. If it tastes a little tart, sprinkle the sweetener over the apples with the cinnamon.



Emerging research over the past few years suggests that our gut influences so much when it comes to both our mental and physical health. And it's clear that looking after your gut is important. But do we need to drink that brightly coloured 'gut shot' or take that fancy new supplement? Or is focusing on following a healthy, balanced diet enough? We look at practical ways to help keep your gut health on track – without breaking the bank



Gut health is a trending topic that's dominated many conversations about health and wellness in recent years, and there's no sign it will slow down any time soon.

With research pointing to a strong connection between the health of our digestive system and immunity, mood, heart health and even diabetes risk, it's certainly a topic to take notice of. But what are the simple ways we can look after our gut? And should we be doing anything in particular?

Words: **Angela Coffey** Illustrations: **Marcie Bower**

What's so special about the gut?

Our gut, also referred to as the digestive tract, is a system of organs inside the body that processes food, absorbs nutrients and is home to a vast and complex community of microorganisms. Microorganisms are tiny living organisms, such as bacteria, that protect against harmful pathogens (microorganisms that can cause disease) and help keep us healthy. They also interact with the immune system and influence inflammation, which is one reason gut health is increasingly linked to long-term conditions like obesity, cardiovascular disease and diabetes.

"This collection of microorganisms is known as the gut microbiome," explains Stephanie Kudzin, Diabetes UK's Nutritionist. "Each person's gut microbiome is as individual as their fingerprints, with genetics, environment, medications, and diet all playing a role."

"A more diverse gut microbiome is often linked with better health"

A more diverse gut microbiome is often linked with better health, but scientists are still uncovering exactly how it works, and there is a lot we don't yet know. Some experts suggest we may only understand a small fraction of this complex system, so it's sensible to be cautious about bold 'gut health' claims. It's important not to automatically assume you need any of the special new gut-health products that appear on the shelves.

"Instead, it's much more beneficial to focus on your everyday foods and overall diet," says Stephanie. "And while many gut-health supplements have limited evidence for routine use, regularly eating fibre-rich foods and a wide variety of plant foods – alongside habits like staying active, not smoking and keeping alcohol in check – is a well-supported and often more affordable way to support gut and overall health."

GUT HEALTH MYTH BUSTER

We look at some of the foods said to promote gut health, whether the claims stack up and cheaper alternatives to try...

£££

Q. Should I take an over-the-counter probiotic?

There's a growing selection of probiotics in small drinks, yoghurts or supplements, often with claims of improving digestion or gut health. These products contain live bacteria or yeasts and research shows that certain strains may help with specific gut-related conditions, such as antibiotic-associated diarrhoea or some digestive disorders. However, for healthy adults, evidence is mixed. Effects are usually strain-specific and temporary, and many bacteria may not survive stomach acid. As everyone's gut microbiome is unique, there are no evidence-based guidelines for general probiotic use. A healthy, balanced diet rich in plant-based foods can provide many of the same gut benefits – plus better overall nutrition at a lower cost.

for benefits in healthy adults is limited. These products can be costly and high in salt. You can support gut bacteria just as well with a balanced, fibre-rich diet of vegetables, legumes and wholegrains.

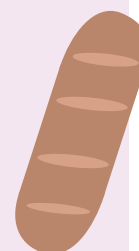
Q. Are 'live' yoghurts better?

Live yoghurts are a good source of protein and calcium and they contain live bacteria that may support gut health. But there's no guarantee these bacteria survive stomach acid or have lasting effects in the gut. Opt for unsweetened, plain yoghurt as part of a healthy diet that includes fibre-rich plant foods, like fruits, vegetables, beans, pulses, nuts and seeds.



Q. Are sourdough breads best?

Sourdough bread differs from other types of bread due to the slower fermentation process using a wide range of bacteria and fungi. This may improve its digestion for some people. It can be a good choice if you have diabetes as it has a lower glycaemic index. Focus on wholegrain bread – sourdough or not – rather than white bread for overall health, and gut health.



Q. Do I have to include fermented foods in my diet?

Fermented foods like sauerkraut, kimchi, kefir and kombucha are also having their moment on the supermarket shelves, thanks to the live cultures they contain. However, there are no official guidelines on how much to eat for gut health, and the evidence



Power up your plate

Follow these steps to reap the benefits of a healthy gut.

FEED YOUR GUT WITH FIBRE

Fibre is a type of carbohydrate that helps with digestive health. It can also help manage your blood sugar and cholesterol levels. Most of us eat less fibre than recommended. But good sources include

wholemeal bread, brown rice, oats, barley and other wholegrains, fruits and vegetables, nuts and seeds, pulses (like beans, lentils and chickpeas) and potatoes (with skin). These foods not only provide fibre but also feed the healthy bacteria in your gut. Keep in mind that if you don't currently have much fibre in your diet, suddenly eating a lot more can lead to



gut health

stomach discomfort such as feeling bloated or having wind (gas).

It's best to gradually increase fibre intake over a few weeks so your gut can adjust and make sure to drink extra water to help the fibre move through your gut and prevent constipation. "It's also a good idea to speak with your diabetes team before making any significant changes to your diet," suggests Stephanie.

FRUIT AND VEGETABLES

You've no doubt heard it before, but aiming to 'eat the rainbow' is a great way to make sure you're getting a wide variety of fruit and veg in your diet, which helps feed the healthy bacteria in your gut. Looking out for seasonal produce can help vary your meal planning, from hearty stews featuring root vegetables in winter, to mixed peppers and tomatoes in salads, and summer berries in desserts in the warmer months. They'll also be fresh and in plentiful supply. You might be able to save money by popping to shops or markets near closing time or using

apps like 'Too Good to Go' or 'Olio' to find discounted or even free food that's close to its sell-by date.

Don't forget that it's not just all about fresh foods – frozen and tinned fruit and veg both count towards your 5-a-day. For tinned options, choose those packed in water or natural juice rather than syrup or added sugar, and for vegetables, look for ones with no added salt.

"You don't even need to completely change what you eat," says Stephanie.

"Don't forget that it's not just all about fresh foods – frozen and tinned fruit and veg both count"

"Just think about small ways you can build on it. For example, you can add extra vegetables to dishes you already enjoy, such as cauliflower and spinach in dhal, okra or aubergine in tomato-based stews, mixed veg in rice, peppers and beans in chilli, or leafy greens stirred into soups."

Don't forget your flavour toolbox, too! Onions, garlic, spring onions, ginger, chillies, coriander, parsley and curry leaves count as plant foods and help boost variety and add flavour without relying on salt or sugar. These small additions can really increase the number of different plants you eat, further supporting your gut. Other ways to up your veg intake include adding grated carrot or courgette to sauces, chopped peppers to omelettes or extra salad on the side. For fruit, try adding banana to porridge, mango or apple slices to yoghurt or lightly stewed fruit to puddings.

WHOLEGRAINS, LEGUMES, NUTS AND SEEDS

Wholegrains such as oats, brown rice, wholegrain bread, wholewheat chapattis, bulgur wheat, millet and wholegrain pasta are rich in fibre, which helps feed beneficial gut bacteria, supports steady digestion and can help manage

blood sugar levels when you swap refined grains (like white bread and rice) for these options. "If you have space, buying larger bags of grains or shopping at world food stores can reduce costs and make it easier to cook more healthy meals," says Stephanie.

Legumes, like beans, lentils and chickpeas, are affordable, versatile and particularly good for gut health thanks to their fibre and plant protein content. Adding them to soups, curries, casseroles or even pasta sauces is an easy way to boost your fibre intake.

Nuts and seeds add fibre, healthy fats and flavour, even in small amounts. Sprinkling a small amount of chopped nuts or seeds over porridge, yoghurt, salads or veg-based dishes helps increase diversity without needing large portions.

HELPFUL HABITS

Watch out for ready meals, sugary snacks and fried foods – they are often low in fibre and less supportive of your gut bacteria. While diet is key to good gut health, don't overlook other helpful habits. Aim to get enough quality sleep, cut down on alcohol if you drink, stay active and find ways to limit stress.

ROLE OF PROBIOTICS AND PREBIOTICS

Probiotics are live microorganisms that can help support the balance of bacteria in your gut. You may know them as 'good' or 'friendly' bacteria, and they are found in foods such as yoghurts with live cultures, kefir and some other fermented foods. However, there's limited evidence supporting many health claims.

Prebiotics are types of fibre that we can't digest, but that serve as food for our 'good' gut bacteria. They help feed and nourish the microbes already living in your gut. Prebiotics are rich in everyday plant foods – for example, onions, garlic, leeks, asparagus, bananas, oats, beans and lentils. "Aiming to eat a wide variety of plant-based foods," says Stephanie,

"helps your gut bacteria to get the fuel they need to thrive."

"While diet is key to good gut health, don't overlook other helpful habits"

GUT FEELING

This quick checklist can help keep your gut health tip-top:

-  Eat a wide variety of plant foods across the week.
-  Choose wholegrains (such as wholegrain bread, chapattis or wraps) over refined grains.
-  Include beans, lentils or chickpeas in some meals.
-  Exercise caution around expensive or 'fad' gut health claims.
-  See your GP or a registered dietitian about persistent gut issues, like bloating, diarrhoea, constipation, or any other unusual changes.

WIN

**A two-night
Cook and Stay
Package for two at
Eckington Manor**

COTSWOLDS COOK-OFF

➔ Eckington Manor is giving one lucky reader the chance to win a Cook and Stay Package, including a two-night escape in their Junior Suite, a chilled bottle of fizz awaiting your arrival, breakfast in the restaurant each morning, and two places on one of their signature cookery courses.

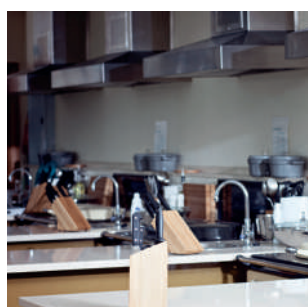
Eckington Manor, nestled in the Worcestershire countryside, on the border of the picturesque Cotswolds, is where luxury, learning, and celebration come together. The on-site, award-winning cookery school offers a plethora of courses taught by inspirational tutors. The courses are fun, relaxed and aimed at all levels of ability – guiding guests to gain new skills and kitchen confidence!

Beautifully designed bedrooms provide a peaceful retreat combining comfort, character, and a touch of indulgence. While the acclaimed restaurant showcases the finest seasonal produce, creating dishes that feel both refined and heart-warming.

For an intimate celebration or a grand country wedding, the romantic barns create a magical setting for special occasions. Blending warmth, style and heartfelt hospitality, Eckington Manor offers an unforgettable experience for all.

■ **To book a stay with Eckington Manor, please call 01386 751600.**

Terms and conditions: Cookery course dates/titles to be selected from the cookery course programme, available by visiting eckingtonmanorcookeryschool.co.uk. Accommodation and cookery course reservations are required and are subject to availability. Offer based on up to two guests staying/attending. Details of any dietary requirement or allergy to be provided at the time of making your reservation. Please visit eckingtonmanor.co.uk for full details of the terms and conditions. Closing date is 14 May 2026.



PRIZE



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INCLUDES:

- A two-night stay in the Junior Suite
- A welcome bottle of fizz in your room
- Breakfast served in the restaurant each morning
- Two places on a scheduled cookery course

To enter, scan the QR code using the camera app on your phone or tablet, or go to:
diabetes.org.uk/bal-comp



THE SWEET TRUTH

With so much mixed opinion around sweeteners, it can be hard to know how or even whether to include them as part of your diet and diabetes management. We cut through the confusion and explain how you can use sweeteners alongside a healthy, balanced diet when you're living with diabetes



➔ If you have diabetes, you're likely no stranger to the ongoing confusion and debate around sweeteners. Questions often resurface about what they are, how they affect blood sugar levels, their role in weight management and whether they're safe.

It's not just what you add to your tea or coffee to make it taste sweeter. Cordials and fizzy drinks, some yoghurts, cereals and sauces, and many everyday foods and drinks now contain sweeteners. And, as sweeteners appear in more and more products, it's no surprise that some people may have concerns about their long-term health effects and how they affect blood sugar levels.

That's why experts from Diabetes UK, the British Dietetic Association (BDA) and the British Nutrition Foundation (BNF) have come together to update their position statement, bringing

much-needed clarity to the topic. After reviewing the latest evidence, low- or no-calorie sweeteners are safe when they're within the recommended daily limits. So, what does it mean and how can these types of sweeteners fit into supporting your diabetes management?

Sweeteners: What are the different types?

What are sweeteners? Put simply, a sweetener is any ingredient that gives food or drink its sweetness, including sugar itself. However, most people refer to sweeteners as something used in place of sugar, usually as a way to help reduce 'free sugar' intake, calories or carbs in foods and drinks, and these are often called sugar substitutes. Free sugars are added into foods such as cakes, biscuits, sweets and sugar-sweetened soft drinks, unlike naturally occurring sugars in

fruit and vegetables (fructose) and dairy products (lactose). Low- or no-calorie sweeteners are ingredients added to foods and drinks to make them taste sweet, but they provide little or no calories and are used instead of sugar.

"We can group sweeteners in a few ways," explains Stephanie Kudzin, Nutritionist at Diabetes UK. "You might hear them described as sugars versus sugar substitutes, or as natural – like honey or agave syrup – versus artificial, such as aspartame or sucralose."

A good way to look at it is whether a sweetener provides energy:

■ **Nutritive sweeteners contain carbohydrates and calories and affect blood sugar levels.**

■ **Non-nutritive (low- or no-calorie) sweeteners don't contain carbohydrates and calories. They have little to no effect on blood sugar levels.**

Are sweeteners safe?

It's important to remember that sweeteners approved for use in the UK have been thoroughly tested and monitored and are safe when they're consumed within acceptable daily intakes (ADIs). The new position statement highlights that most people's intake remains below ADI levels. Although people with phenylketonuria (a rare metabolic disorder) are advised to avoid sweeteners containing aspartame.

"To help put things into perspective," says Stephanie, "an adult would need to drink around 12 cans of diet drinks sweetened at maximum permitted levels every day for life to reach the ADI for aspartame, which we know is more than most people would usually drink."

Sweeteners aren't a standalone fix, but they can be used safely as part of an overall healthy eating pattern to support

diabetes management, particularly when you fancy something sweet. Examples include sprinkling a little sweetener onto porridge or overnight oats instead of adding honey, adding a small amount to hot drinks instead of sugar, and incorporating them into home baking instead of some or all of the sugar (see 'Cooking with sweeteners', page 65).

How do sweeteners affect diabetes?

As low- or no-calorie sweeteners don't raise blood glucose levels in the same way as sugars, they can be a useful tool when you have diabetes to support blood sugar and weight management, when used within a healthy, balanced diet. Switching from sugary foods or drinks to alternatives sweetened with low- or no-calorie sweeteners can help lower overall free sugar and carbohydrate

intake and reduce a rise in blood glucose after eating.

They're particularly helpful for anyone who regularly consumes sugary drinks. While water and sugar-free drinks – such as tea and coffee – are the best choices, switching from sugary drinks to diet versions can be a stepping stone towards reducing free sugar intake.

Low- or no-calorie sweeteners can also support weight management in the short term when they replace sugar, although they're not a magic fix. The biggest benefits come when they're used alongside a healthy, balanced diet and regular physical activity.

"The new position statement highlights that most people's intake is way below ADI levels"

KNOW YOUR TYPES

Type	What are they?	Natural or artificial?	Nutritive or non-nutritive?	Examples	Effect on glucose?
Sugar (free/added sugars)	Sweeteners that provide energy and carbohydrate	Natural (but often refined)	Nutritive	Table sugar (sucrose), glucose and fructose (simple sugars found in sweets), maltose, dextrose, honey, syrups (like agave and maple syrup)	Raises blood glucose
Artificial sweeteners	Very intense sweeteners used in tiny amounts	Artificial	Non-nutritive	Aspartame (eg Candarel), sucralose (eg Splenda), saccharin (eg Sweetex), acesulfame-K (eg Sweet 'N' Low), cyclamate (eg Hermesetas Liquid)	No effect
Naturally derived sweeteners	Sweeteners from plant sources	Natural, however highly processed	Non-nutritive	Stevia (steviol glycosides) and Truvia	No effect, but be aware that some added ingredients may have blood glucose raising properties
Sugar alcohols (polyols)*	Lower-calorie sugar alternatives	Natural or artificial	Nutritive (low-calorie)	Erythritol, xylitol, sorbitol, maltitol, mannitol	Polyols contain carbohydrates and calories, but they have fewer calories and less of an effect on blood glucose levels than sucrose (sugar)

*Note: Polyols are not included in the position statement. Visit diabetes.org.uk/bal-polyols to find out more.

IN BRIEF: DIABETES UK'S POSITION STATEMENT

Our updated position statement on the use of low- or no-calorie sweeteners (LNCS) aims to bring clear, evidence-based guidance to support people with diabetes. The update reflects new research, changes in food reformulation, and ongoing public concern about the safety of sweeteners.

Key takeaways from the joint position statement include:

SAFETY

- Low or no-calorie sweeteners are considered safe when consumed within acceptable daily intake (ADI) limits.

- Most people's intake of sweeteners is well below ADI levels (see 'Are sweeteners safe?', on page 63 for more about ADI limits). This is the amount of a substance that can be consumed daily over a lifetime without risk.

- These ADI levels are set 100 times below the lowest amount that may cause health concerns.

ROLE IN DIET

- Low- or no-calorie sweeteners can help reduce the amount of free sugar intake, lower overall calories, and support weight and diabetes management.

- They are not a cure-all and should only be part of a healthy, balanced diet.

- They can help replace sugar-sweetened drinks, especially for people with a higher risk of type 2 diabetes.

USE OF LOW- OR NO-CALORIE SWEETENERS

- Low- or no-calorie sweeteners aren't recommended for children under three years old.

- For older children, they may help reduce excess amounts of sugar they have in their diets, but water and milk are preferable.

- Water and unsweetened drinks are still better options for everyone.

The statement also says that more research and better data are still needed to understand how much low- or no-calorie sweeteners people are actually consuming. This is because as more foods and drinks are being reformulated, their long-term effects on health and the choices people make about the foods and drinks they consume need to be monitored.

This position statement was produced alongside scientists representing the BDA, the BNF's Scientific Committee and Diabetes UK in conjunction with the Diabetes Lived Experience Advisory Committee (DLEA) – a group of volunteers living with diabetes who help ensure real-life experiences shape Diabetes UK's work.

- You can find the position statement in full by going to: diabetes.org.uk/bal-sweeteners

- Learn more about Diabetes Lived Experience Advisory Committee (DLEA) at: diabetes.org.uk/bal-dlea

How much should you have?

There's no set daily target for sweetener intake. Staying within ADIs is considered safe, and most people do this naturally.

"Sweeteners are safe, well-regulated and can be a helpful option for people with diabetes, especially when they replace sugar," Stephanie says. "Used in moderation, they can support blood sugar and weight management, while still allowing room for sweetness as part of a balanced diet."

But, whether you already use low- or no-calorie sweeteners in your diet or are thinking about trying them, it's important not to overcompensate – such as, eating larger portions than usual or choosing less healthy foods just because something is labelled 'sugar-free'. Make sure foods containing sweeteners still fit within a healthy, balanced diet, and don't assume they're automatically better or healthier.

Making the change

It's also good to be aware that everyone responds differently to dietary changes, including swapping sugar for sweeteners. It's also good to be aware that everyone responds differently to dietary changes, including swapping sugar for sweeteners. If you monitor your blood sugar levels at home, check



it more often when you make changes so you and your healthcare team can see how your overall diet is working for you. You can also keep track of your appetite and weight to check that these changes are helping your long-term goals. If you choose to use low- or no-calorie sweeteners, the key is to use them as a too, not as the main focus of your diet.

To help support diabetes management and overall health, aim to increase fruits and vegetables, and include wholegrains, pulses, fish, nuts, and seeds:

■ Add extra veg in pasta sauces, soups, curries and stir-fries.

■ Swap refined carbohydrates like white bread and rice for wholegrain options, like wholegrain bread, brown rice, wholewheat pasta or oats as they are higher in fibre.

■ Include pulses like lentils, chickpeas and beans in your meals.

■ Aim for two portions (140g cooked) of oily fish, like salmon, mackerel, sardines, trout or fresh tuna per week.

Choose unsweetened dairy or fortified alternatives:

■ Check food labels and go for plain, unsweetened options where possible.

With plant-based alternatives, look for unsweetened varieties that are fortified with calcium and vitamins B12 and D, to provide similar key nutrients to milk.

Reduce free sugars, and sugary snack foods:

■ Try to limit foods and drinks high in free sugars, such as jams, pastries, chocolate, sweets and sugary drinks. Also limit fried starchy foods like French fries, crisps and doughnuts, which are high in fat and calories, and make weight and heart health hard to manage. Instead choose snacks that combine fibre, protein or healthy fats, such as fruit with natural unsweetened yoghurt, nuts or wholegrain crackers with hummus.

■ Drink water over fruit juice and smoothies or other soft drinks: Try adding cucumber, mint, or lemon and lime for different tastes, or choose sparkling water now and again to help keep things interesting.



COOKING WITH SWEETENERS

As well as many prepackaged foods and drinks containing sweeteners, there are ways to use them at home when you fancy something sweet but want to cut back on sugar.

Sweeteners often work as an easy switch in things like drinks, but it's usually not as simple as a straight swap when it comes to baking.

Some things to keep in mind:

■ **Most sweeteners are much sweeter than sugar, so you usually only need a little.**

■ **Check the sweetener label for tips and quantities, as each one works a bit differently, especially when heated.**

■ **Try reducing sugar first – many bakes still work well with half the usual amount.**

Need some inspiration? Try some of our expert tried-and-tested recipes that use sweeteners:

■ **For a refreshing, zesty drink, try our virgin mojito.**

■ **Hone your baking skills with our recipe for chocolate, almond and berry cake showstopper.**

■ **Or try a delicious after-dinner rhubarb fool.**

For these recipes and many more using sweeteners, try our recipe finder at diabetes.org.uk/bal-recipes



Remember, it's always best to speak with your diabetes healthcare team for individual advice on meal planning, food choices, and how sweeteners could fit into your own diabetes management.

MEET THE... FUNDRAISER ANGELA



Angela Hilditch is our Senior Events Manager in the Community and Events team. She takes us behind the scenes of organising some of our big fundraising challenges

➡ I work in the Mass Participation Events team here at Diabetes UK. There are three main strands that I'm involved with – the One Million Step Challenge, Swim22, and our Facebook challenges. One Million Step Challenge and Swim22 are two of our flagship events and both take place over three months. One Million Step Challenge is where people walk either 500,000, 1 million, or 1.7 million steps from July to September. For Swim22, participants are challenged to swim either 11, 22, or 44 miles from March to June. The Facebook challenges are quicker monthly challenges. Last year, we ran our 62-mile challenges in March and October, and our 60-mile challenge in June. People can complete those miles however they like – running, walking, cycling – or even on horseback!

Even though these events take place over just a few months, planning them takes a full year. Swim22, for example, finishes mid-June but at that point our team have already started evaluating and planning for next year. We think about how we can improve the experience, what worked well and what didn't. There's a six-month period between finishing Swim22 and the event going live again to recruit participants for the next year's challenge. We have four months of planning and preparation which involves creative workshops and discussions to pinpoint our priorities and

aims. We work with lots of other teams at this stage, including the Marketing, Creative and Media teams, so it's a real joint effort. We usually then go live for three months of marketing the challenges to find people who would like to take part.

The team and I always feel proud of our work when we hear some of the stories from people who've completed a challenge. We heard from one family a few years ago who completed

Swim22 together after their five-year-old son had recently been diagnosed with type 1 diabetes. They wanted to show him that his diabetes doesn't have to stop him from enjoying exercise. We've also heard from a lady who was housebound due to health complications who signed up for the One Million Step Challenge and smashed her target. She shared that, after the challenge, she felt so much healthier, and that she'd not only got control back physically but also in her life generally. The impact these challenges can have on people's lives is incredible.

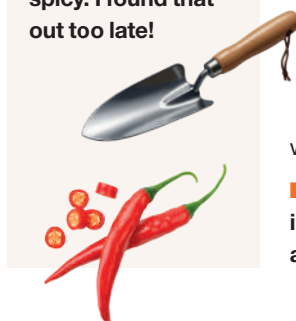
From a charity perspective, these challenges are so important as we rely solely on public funding to support and campaign for people living with and affected by diabetes. Everybody will know somebody affected by diabetes and the only way we can help them is through fundraising and we're so grateful that our events have been hugely supported so far.

The large number of people taking part and raising smaller amounts like £15–£20 means this all adds up to an incredible total that supports our vision to create a world where diabetes can do no harm.

■ **Find out more about ways to get involved in our fundraising challenges at diabetes.org.uk/bal-fundraising-events**

FUN FACT

■ **Outside of work, I'm an amateur but very dedicated gardener. I enjoy growing lots of different things like pumpkins, parsnips, and carrots. I've also grown a few chillies but, because they take so long to grow, I lost the labels for them, and it turned out that a chilli I thought was not spicy was very spicy. I found that out too late!**



SWIM22

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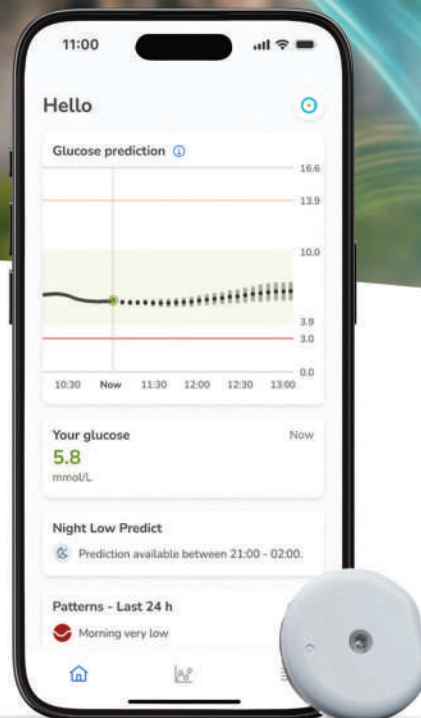
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Please speak to your healthcare team about the most appropriate technologies for you.

*The Accu-Chek SmartGuide Predict app predicts the general estimated glucose development within the next 2 hours (Glucose Predict), the estimated high risk of low glucose within the next 30 minutes (Low Glucose Predict), and the estimated risk of a night-time hypoglycaemia for the upcoming 7 hours (Night Low Predict, active between 21:00 and 02:00).

The Accu-Chek SmartGuide CGM solution is intended for adults with diabetes aged 18+. The screens you see may differ from the screens in the app. Smartphone required, not included in the solution. The persons shown in these photographs are models for illustrative purposes only and are not real life patients. ©2026 Roche Diagnostics Limited. All rights reserved. ACCU-CHEK, ACCU-CHEK SMARTGUIDE and ACCU-CHEK SMARTGUIDE PREDICT are trademarks of Roche. All other product names, trademarks and brand names are the property of their respective owners. Roche Diagnostics Limited, Charles Avenue, Burgess Hill, West Sussex, RH15 9RY. Company Registration Number: 571546 | Date of preparation: December 2025. | Document number: MC-IE-03618 | For use in the UK only. | accu-chek.co.uk