

# BALANCE

The exclusive  
magazine for Diabetes  
UK members

**HAPPINESS  
HACKS**  
9 feel-good  
ways to  
boost your  
mood



## **RISE OF THE MACHINES**

How AI is  
revolutionising  
diabetes care

## **VEG OUT**

Versatile  
recipes that  
are big on  
taste and  
reduce waste

# Call the midwife


Fertility struggles and type 1  
have helped Nina give better  
care to people with diabetes





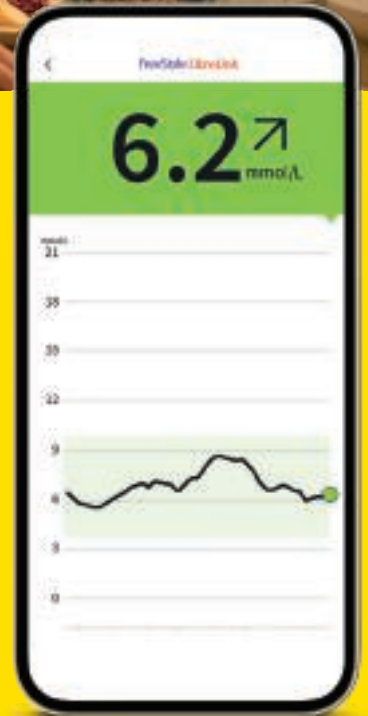
FreeStyle  
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6.2  mmol/L

# Manage your diabetes with more confidence<sup>1</sup>...

Get real-time glucose readings sent right to your smartphone<sup>2,3</sup> with the FreeStyle Libre 2 system.



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**1.** Fokkert M. *BMJ Open Diab Res Care* (2019): <http://dx.doi.org/10.1136/bmjdr-2019-000809>. **2.** The FreeStyle LibreLink app is only compatible with certain mobile devices and operating systems. Please check the website for more information about device compatibility before using the app. Use of FreeStyle LibreLink may require registration with LibreView. **3.** Glucose readings are automatically displayed in the app only when the smartphone and sensor are connected and in range.

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## Welcome to your spring issue of Balance

I've recently returned from maternity leave and it's great to be back. While I've been away, thousands have joined our campaign for fairer access to diabetes technology and thanks to an incredible grant from the Steve Morgan Foundation, we've launched pioneering type 1 research projects.

We've also been focusing on how to tackle diabetes stigma and striving to include the voices of more people in our work. We couldn't do this without the support of people who generously share their time and lived experiences with us. In this issue, to mark International Women's Day, we have incredible stories from a remarkable group of women who are working to tackle inequality, supporting others and helping further our understanding of diabetes.

Our experts are taking a look at Artificial Intelligence – how it's currently being used to help people with diabetes and how its capabilities might be harnessed in future. Plus all you need to know about headline-hitting type 2 treatment, Wegovy.

And to celebrate the arrival of spring, we're looking at the benefits of gardening and serving up exclusive, seasonal recipes that can be tweaked to suit all tastes.

Senior Membership Manager,  
Diabetes UK



**Become a member**  
[diabetes.org.uk/bal-member](https://diabetes.org.uk/bal-member)



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**Diabetes Specialist Midwife**  
Nina reflects on her journey to motherhood with type 1



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**Women from our incredible**  
diabetes community share their stories



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**Mix it up: Our versatile veg**  
recipes are big on taste and can help to reduce waste

### 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:

**yourmembership@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 **yourmembership@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: **yourmembership@diabetes.org.uk**

## FIND SUPPORT



### Diabetes UK 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–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/how\_we\_help**



### 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**



### Our Address Diabetes UK

126 Back Church Lane, London E1 1FH

**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](mailto: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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Cover image: Neale Haynes. Photography this page: Nick Dawe; Vinny Whiteman

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Design, production and editorial support from The River Group, Garden Floor, 16 Connaught Place, London W2 2ES; 020 7420 7000. Colour repro by Zebra, London. Printed by Walstead Roche

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# THE BULLETIN

The latest diabetes news, research and developments

## MBE for tireless type 1 volunteer

Alison honoured for decades of dedicated support

ALISON FOTHERINGHAM, 46, from Kent, has been rewarded for her 'Public and Voluntary Service' in the New Year Honours List.

Alison, an appeals and litigation assistant director at the Home Office, says: "I've had type 1 since I was nine. Diabetes is very much why I'm tenacious and resilient, and I think the reason I've been honoured with an MBE. This is not just for me but for all those challenged by diabetes every day."

Alison started volunteering with us when she was 18, helping with Family Weekenders in Scotland before working on week-long camps



for children and then running the Abernethy camp in Scotland.

In 2018, Alison ran the London Marathon, raising over £4,500 for us, then again in 2019, raising a further £3,500. In 2020, she became a Run Ambassador for us.

Jill Steaton, our Head of South East Coast and London, said: "We want to congratulate Alison on this well-deserved honour and thank her for all her help."



## Diabetes educator makes the grade

Christopher Henry recognised for making a difference to the lives of people living with or at risk of type 2 diabetes

➔ We're so pleased that our very own Christopher Henry, who is a diabetes support worker in our Northern Ireland team, has been awarded The Deirdre McGowan Educator of the Year by the Leicester Diabetes Centre for his work as a Diabetes Assistant in the South Eastern Health and Social Care Trust.

They said: "This award is given to someone who has made a difference to the lives of people with or at risk of type 2 diabetes. Christopher has shown an outstanding commitment to the DESMOND philosophy and principles. Not only has he supported participants, he has also supported and mentored fellow educators.

"Christopher has gone above and beyond in his work as an Accredited DESMOND Educator. In the last year he delivered 37 DESMOND courses, rearranging his hours and leave to run evening and weekend courses to improve accessibility for participants.

His humour, compassion and kind manner have been commented on by both participants and colleagues, along with his commitment and dedication to DESMOND and the empowerment of people with type 2 diabetes.

"Christopher also goes the extra mile when mentoring others. Not only does he mentor all the new DESMOND Educators, he also welcomes other colleagues, including dietetic and nursing students and pharmacists to come and shadow sessions."

Christopher's team at the South Eastern Health and Social Care Trust were awarded 'Team of the Year.'

The Leicester Diabetes Centre said: "This award goes to a team that has been exceptional at delivering high-quality education to people with or at risk of type 2 diabetes. This team always strives to be the best at what they do."



## NEWS IN NUMBERS

The National Diabetes Audit found that in 2021-2022, the eight health checks for diabetes were received by:

**35%**

OF PEOPLE LIVING WITH TYPE 1 diabetes in England.



**48%**

OF PEOPLE LIVING WITH TYPE 2 diabetes in England.

**16%**

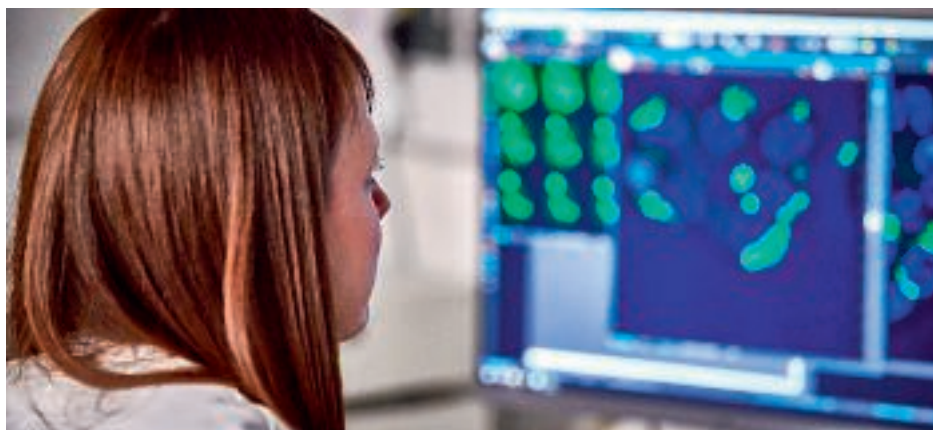
OF PEOPLE LIVING WITH TYPE 1 diabetes in Wales.



**30%**

OF PEOPLE LIVING WITH TYPE 2 diabetes in Wales.

■ Read the full report: [diabetes.org.uk/bal-NDA](https://diabetes.org.uk/bal-NDA)



## Making research count

We invested over £20 million into groundbreaking diabetes studies in 2023

➔ At any one time, we have over 100 diabetes research projects on the go. Every year, we work hard to make sure your generous donations make the biggest possible difference to the lives of people with diabetes by investing in the highest quality science.

In 2023, we helped 36 cutting-edge projects get underway, totalling over £6.5 million. And that's

not counting more than £12.3 million invested by the Type 1 Diabetes Grand Challenge, which now has nine innovative projects breaking new ground. Read all about them on page 12.

We're also delighted that others are joining us on our journey. We leveraged another £5.1 million into diabetes research by partnering with other charities and

research funders.

Take a closer look at some of the new research just kicking off, thanks to your support.

Your membership means we can continue to fund new research, have experts there for advice and support over the phone, continue our vital campaigns and more.

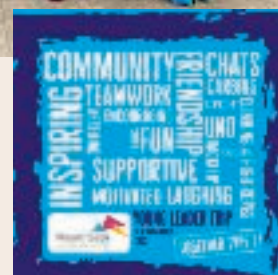
■ [diabetes.org.uk/bal-research-2023](https://diabetes.org.uk/bal-research-2023)

## Together Type 1

➔ In recognition of a fantastic calendar year of volunteering, the Together Type 1 Team in the Midlands and East of England took some of their Young Leaders for an overnight stay at the Mount Cook Adventure Centre in Derbyshire.

The activities included high ropes, a problem-solving challenge, and the leap of faith. In the evening, the Young Leaders shared insights about living with type 1 diabetes with each other and with paediatric diabetes specialist registrars Manju and Eman, who volunteered to support the event. Both said they would "use the insights gained from the type 1 chat to craft meaningful conversations with young people."

■ [diabetes.org.uk/bal-TT1](https://diabetes.org.uk/bal-TT1)







## Are you #RamadanReady?

➔ We have guidance for people living with diabetes who'll be observing the holy month this year – the decision to fast during Ramadan is your own,

but seek advice about measures to look after your health.

We worked with the British Islamic Medical Association to bring you all the information you need to enjoy a

safe and blessed Ramadan, available in English, Arabic, Urdu, Bengali and Gujarati.

■ **Go to [diabetes.org.uk/bal-Ramadan](https://diabetes.org.uk/bal-Ramadan) – and Ramadan Mubarak to all those observing.**



Your experience could help shape our campaign work

## Become a Campaign Champion

➔ Do you have a story that decision-makers need to hear? Do you live with diabetes or care for someone that does? Have you experienced:

- Complications due to diabetes?
- Problems getting support from your healthcare team to manage your diabetes, such as blood tests, appointments and other checks?
- Been unable to work due to your diabetes or have experienced issues at work?
- Been unable to access diabetes tech that you're eligible for or had to fight to get it?
- Diagnosed with type 2 diabetes under the age of 40?
- Stigma at work, at your healthcare appointments or elsewhere?

■ **Then you could be one of our Campaign Champions! Find out more: [diabetes.org.uk/bal-campaign-champion](https://diabetes.org.uk/bal-campaign-champion)**



## New research and resources

➔ **THOUSANDS OF WOMEN** in the UK with diabetes are currently experiencing menopause. But at the moment, the advice and support for managing the condition through the menopause just isn't there.

This has been identified as a critical priority by our Diabetes Research Steering Groups. To paint a clearer picture of the urgent unanswered questions, we invited experts in women's health and diabetes, representatives from charities and funding

bodies, and women with diabetes who've experienced menopause to a workshop. Later this year, we'll let you know their recommendations for new research to tackle this vital issue.

■ **[diabetes.org.uk/bal-menopause-workshop](https://diabetes.org.uk/bal-menopause-workshop)**

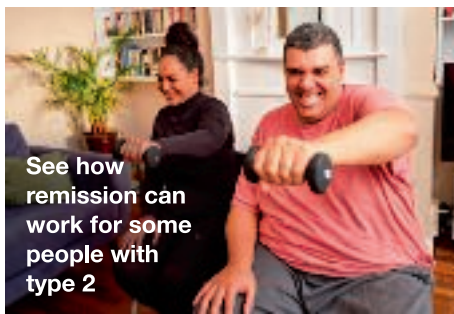
## World Diabetes Day

➔ To mark World Diabetes Day 2023, our South East Coast and London team held a ‘Living with Diabetes Day’ awareness event for people living with type 2 diabetes in the London Borough of Waltham Forest.

More than 50 people came along to learn more about their type 2 diabetes through talks and workshops led by local healthcare professionals on different topics – ranging from footcare to food.

People also learned more about how Diabetes UK can support them and had the opportunity to speak with people from local organisations to find out how they can offer support.

■ Find out more about the day and watch a video from the event: [diabetes.org.uk/bal-world-diabetes-day](https://diabetes.org.uk/bal-world-diabetes-day)



See how remission can work for some people with type 2

### Type 2 remission information and support is here

➔ We want to support more people living with type 2 diabetes to discover the possibility of remission.

Type 2 remission is when you keep your blood sugars below the diabetes level for at least three months without the need for medications that lower your blood sugar levels.

Head to our website to find out what type 2 remission is, how you might be able to put your type 2 into remission, and what help is available from health services.

■ For more info, visit: [diabetes.org.uk/bal-remission-hub](https://diabetes.org.uk/bal-remission-hub)





# Fundraising feats

## No mountain high enough

Lewis Pearce, 29, from Lancashire, has raised £980 for us since being diagnosed with type 1 diabetes a year ago.

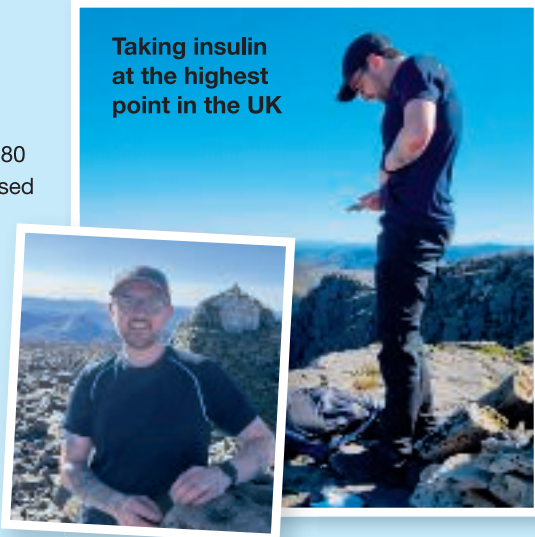
Keen hiker Lewis, who has taken part in the Great North Run, four half marathons and climbed the Yorkshire Three Peaks, Helvellyn Striding Edge, Scafell Pike, Snowdon and Ben Nevis said:

“It started as me not wanting to sit and sulk about my diagnosis and instead raise awareness and funds. I never realised the kind of support and encouragement I’d receive. I would tell anyone thinking about taking on a challenge to do it! Don’t let anything stop you.

“Before diabetes, I was active and into hiking and after my diagnosis, I struggled with how much energy it took me to go round the supermarket. My life changed instantly, and it was upsetting. I didn’t want to sit and feel sorry for myself, so I signed up for the London Marathon – I’d never run a mile in my life!

“I received so much support from my DSNs, my GP and Diabetes UK that it was a no-brainer that I’d run for Diabetes UK. It was so hard at first but I kept pushing and felt like I had everything to prove to myself and others.

“I just keep sharing my links, doing what I can to raise money, and sharing bits of my story with people each time. I want to keep pushing myself bigger and better each time and planning more challenges.”

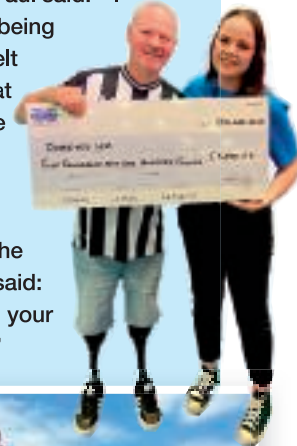


## Winging it

One of our supporters completed a series of events, including a wing walk, raising £5,150.

Paul Fiddler, 59, from the North East, had a double leg amputation due to diabetes-related complications. After Paul's fundraising was featured in The Chronicle, one reader saw their the doctor and was diagnosed with diabetes. Paul said: “ I have never felt a buzz like being strapped to that plane. It felt brilliant to show people that diabetes doesn't define me and I can still do a lot of things with it.”

Elise Featherstone, our Community Fundraiser in the North East and Yorkshire, said: “Thank you so much, Paul, your determination is inspiring.”



# Get involved

**WE HAVE SO MANY EVENTS** happening this year, there's something for everybody. Whether you like a dip in the pool or a run round the park, you'll be making strides towards a healthier you in 2024 and help support our cause.

■ **Swim22**

22 March – 22 June 2024  
diabetes.org.uk/bal-Swim22

■ **Royal Parks Half**

13 October 2024  
diabetes.org.uk/bal-Royal-Parks

■ **Wellness Walks**

Liverpool – 19 May  
Glasgow – 2 June

■ **Cardiff – 16 June**

Birmingham – 7 July

■ **Newcastle – 1 September**

London Bridges – 29 September  
diabetes.org.uk/bal-Wellness-Walks

■ **Great North Run**

Sunday 8 September  
diabetes.org.uk/bal-GNR





# OVER TO YOU

Your views – from the postbag, forum and X

## ★ STAR LETTER

### Recipes for success

In February 2021 following a routine blood test, I was diagnosed as prediabetic.

One of the first actions I took was to become a member of Diabetes UK, which I've found helpful and supportive.

With help, regular blood tests and perseverance I've not gone over 'the line.'

I have received my Balance this week and just wanted to say I think the recipe cards are a great idea. They can be kept right to hand rather than searching through past magazines – I do hope you continue to 'serve' us with them.

**Christine Finely, Milton Keynes**

STAR LETTER: Go to [diabetes.org.uk/bal-comp-terms](https://diabetes.org.uk/bal-comp-terms) for full terms and conditions.

## FROM X (Formerly Twitter)



#DiabetesUk  
#WorldDiabetesDay  
#NailingIt  
**@AnnetteBadland1**

 What a lovely day at John Lewis Leicester in the @Highcross. Come and say hello to our Ilr DESP team if you're nearby.  
**@Ilrdesp**



**WIN!**  
Ocado vouchers  
**WORTH**  
**£50**



## ON THE FORUM WALKING TO MANAGE BLOOD SUGARS

**Karen999: Who walks before they eat and who walks after, and does it make any difference?**

**Martin.A:** I regularly walk to our local supermarket to get a newspaper before breakfast, and my wife and I often go for a walk around an hour after finishing our evening meal. I don't test after my morning walks but the latter definitely gives me a lower post-prandial, so much so that in my BG diary I always add a note against those entries "after post-meal walk."

**Harbottle:** I walk around 40 minutes to an hour after eating around a country park by the University Campus I work on. If I've had something with carbs I can sometimes see very

low readings after a short brisk walk.

**Everydayupsanddowns:** I walk the dogs somewhere between 1-3 times every day. Sometimes I will use a brisk dog walk to turn around a BG which has gently drifted upwards a little higher than I'd like it. If I can see my levels rising swiftly after a meal and my insulin is running a little late, then I know I can kick-start it with a walk of as little as 5-10 minutes. Whenever I walk any distance, I need to 'allow for it' in terms of its glucose-lowering effect. So yes, for me it definitely makes a difference!



Join the conversation at:  
[diabetes.org.uk/bal-forum](https://diabetes.org.uk/bal-forum)



Adults living with type 1 #diabetes can access a free online NHS service to receive tailored support at home or on the move.  
**@oneyouplymouth**

# Fast-tracking new discoveries

Type 1 Diabetes Grand Challenge invests £13 million into six transformational new projects



➡ We can unveil the latest groundbreaking research projects funded by the Type 1 Diabetes Grand Challenge. Last year, we called on scientists to submit research proposals to get us closer to having new treatments for people with type 1 diabetes that tackle the root cause of their condition and restore their insulin-making beta cells.

Over £13 million of funding will support six outstanding research teams – made up of 49 scientists working at 22 different institutions in the UK and Europe – to fast-track discoveries that could see us make huge strides in how we treat type 1 diabetes.

To find a cure, we need to find a way to give people with type 1 new beta cells that work to precisely manage their blood sugar levels. Four of our new projects will innovate new ways of reaching this goal.

## Beta cells: Replace, protect, regenerate

Professor David Hodson at University of Oxford, Dr Ildem Akerman, at University of Birmingham, and Dr Johannes Broichhagen at Leibniz FMP in Berlin, will explore how insulin-boosting molecules that sit on the surface of beta cells could be

harnessed to create more effective lab-grown beta cells.

They'll also investigate whether the molecules can be used to deliver treatments that help protect transplanted beta cells from the immune system. Or trigger new beta cells to grow inside the body, by encouraging other cells in the pancreas to transform into beta cells.



Dr Johannes Broichhagen

“We've developed an ambitious three-prong research programme that spans beta cell replacement, protection and regeneration, so as to give us the best chance of driving discoveries that could make these

treatments available for people living with type 1 diabetes,” explained Professor Hodson.

## Bolstering beta cells ready for transplantation

Professor Shanta Persaud, Dr Aileen King and team at King's College London will work to create an unlimited supply of elite beta cells ready for transplant. They'll draw on their expert knowledge of how the human pancreas works and develops, and apply this to making beta cells from stem cells in the lab. As they grow the beta cells, they'll bolster them with specialised support cells and helpful nutrients that will encourage them to develop so they can respond to changing blood sugar levels just as well as the body's own



Six research teams will receive over £13 million to help speed up discoveries around beta cell replacement and immunotherapy that could make giant leaps in how we treat type 1 diabetes



beta cells do. Dr King explained the difference this would make for people living with type 1 diabetes.

“They have to constantly think about their blood glucose levels and adjust their insulin doses in response. We want to produce fully functioning beta cells suitable to implant into people living with type 1 diabetes, which do this on their behalf.

“This would be transformative for people with the condition, as it would restore the body's minute-to-minute insulin production that is required to carefully control blood glucose levels – reducing the risk of dangerous blood sugar lows and long-term diabetes complications, while also reducing the huge psychological impact of living with diabetes.”





### Creating a better home for transplanted beta cells

Professor Francesca Spagnoli and Dr Rocio Sancho at King's College London, together with Professor Molly Stevens at University of Oxford, will focus on ways to keep lab-made beta cells safe from harm. They'll use cutting-edge technology to boost beta cells' chances of survival once transplanted by coating them with protective gels and using nanoparticle technology to create a synthetic microenvironment to protect them from the hostile environment they'll face once transplanted inside the body.



Dr Rocio Sancho

Prof Spagnoli told us the difference funding of this scale will make. "It means we can explore new avenues in diabetes research. We'll be able to start moving some of our discoveries closer to clinical applications," she said.

### Unleashing the benefits of islet transplants

Professor Shareen Forbes at University of Edinburgh and Dr Lisa White at University of Nottingham will spearhead a team to search for ways to boost the benefits of donor beta cell transplants – called islet transplants. They'll investigate if delivering drugs packaged inside microcapsules alongside islet transplants helps the donated beta cells produce more insulin and survive longer. This would make islet transplants more effective and mean many more people with type 1 diabetes could benefit.

Prof Forbes reinforced the momentum the Grand Challenge is building. "The funding has allowed scientists from diverse fields to come together in this project with a common goal of doing some truly innovative research that will advance the field," she said.

"I hope the Grand Challenge's investment will give people living with type 1 diabetes hope that a cure can be achieved in their lifetime."

In people living with type 1 diabetes, the immune system remains primed to seek out and destroy beta cells. To ensure the survival of any new beta cells transplanted into people with type 1, protection from the immune system is critical.

Two projects from our latest multi-million-pound investment are focused on promising new immunotherapy treatments, which fend off the immune attack in type 1 diabetes.

### Immunotherapy: Is timing everything?

Dr James Pearson, at Cardiff University, and his team will investigate whether the time of day we give an immunotherapy can affect how well it works. They'll study a type of immunotherapy drug named interleukin-2 (IL-2). It works by expanding the population of helpful immune cells, called Tregs, which try to prevent assassin immune cells from launching their attack. Dr Pearson has found evidence that Tregs respond differently to IL-2 depending on the time of day and will now explore this further.

Dr Pearson said: "I am thrilled to receive this funding for our research, which will identify how immune cells vary over the course of the day but also how well they respond to therapy. This knowledge will enable us to improve the success of therapies for people with, and at risk of, type 1 diabetes by identifying when best to administer therapy."

### Combining immunotherapies

Dr Danijela Tatovic, at Cardiff University, will head a team to explore if combining two immunotherapies that target different parts of the immune system could make them effective at protecting beta cells.

They'll run a clinical trial testing the immunotherapies abatacept and IL-2 with people recently diagnosed with type 1, who still have some surviving beta cells. Their findings will tell us how best to combine the drugs and will lay the groundwork to build the evidence needed to make this combination treatment available for people with or at risk of type 1.

Dr Tatovic said: "We are on the cusp of making fundamental difference to the treatment of type 1 diabetes, from burdensome insulin replacement to preserving a person's own insulin."





# Artificial Intelligence: A game-changer for diabetes care

In an age of constantly evolving technology, phrases like artificial intelligence and machine learning are always hitting the headlines. But what does it all mean, why is it important, and how could it affect people living with diabetes?

## Machine and deep learning

In the 1950s, Alan Turing, widely thought of as the father of computer science, asked, “Can machines think?” His “Turing test,” where a human tries to tell the difference between responses from a computer or another human, has played an important role in the history and philosophy behind artificial intelligence, or AI.

AI involves harnessing computer science, machines and data to problem-solve, and make decisions in the same way a human would. Two important types of AI that are making waves in healthcare are called machine learning and deep learning.

In machine learning, scientists help computers learn by giving them lots of data and examples. Scientists then train the computers to do tasks, make decisions and recognise patterns.

The chatbot ChatGPT is one example of AI that uses machine-

learning algorithms to answer questions, give information, generate creative content, and help with language-based tasks.

Deep learning is a special form of machine learning designed to mimic the human brain's ability to learn and process information. The computer's 'brain', known as a neural network, has lots of connected layers. Each layer helps it understand different things, enabling the computer to figure things out by itself, without needing any training.

These AI systems have the potential to revolutionise healthcare, from improving how we diagnose health conditions to personalising treatment. Here, we explore some of its current uses in diabetes care and how researchers are harnessing advances in AI to turn science fiction into science fact.

**“AI has the potential to revolutionise healthcare, from improving how we diagnose health conditions to personalising treatment”**

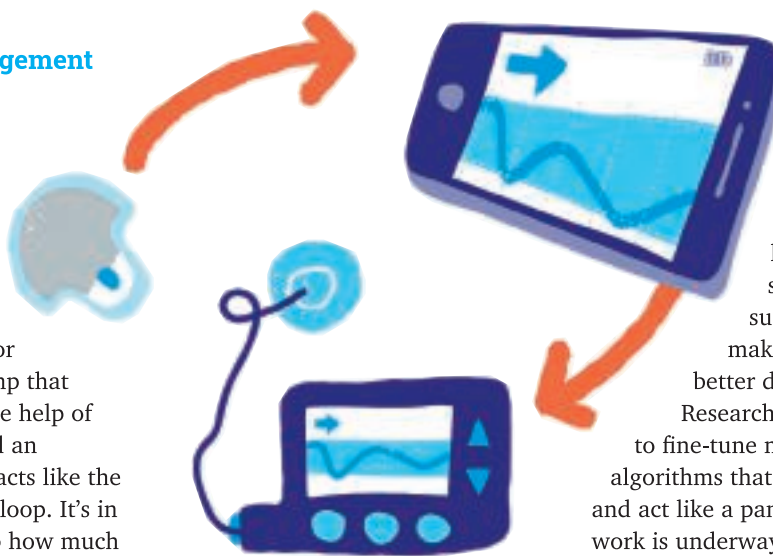


## Monitoring and management

AI is already starting to play an important part in diabetes monitoring and management. Probably the best-known use of it is in hybrid closed loop systems.

These are made up of a continuous glucose monitor (CGM) and an insulin pump that 'talk' to each other with the help of a set of instructions, called an algorithm. The algorithm acts like the brain of the hybrid closed loop. It's in charge of telling the pump how much insulin it should release based on blood sugar levels and carb count values entered in by the user.

We've been funding research for decades to support scientists in developing the algorithms that sit at the heart of closed loop systems. In the latest-generation tech, AI has



**“Research continues to use AI to fine-tune more sophisticated algorithms that could one day think and act like a real pancreas”**

been used to supercharge the algorithms and make them smarter, with the capability of learning from someone's blood sugar patterns to make predictions and better decisions.

Research continues to use AI to fine-tune more sophisticated algorithms that could one day think and act like a pancreas. For example, work is underway to use deep learning to better detect when a user has eaten, and act by delivering insulin. The potential for rapid development of this technology is exciting as we get closer to making the 180 extra daily decisions that people with type 1 make a thing of the past.

## Diagnosis and data-led care

AI holds the power to analyse medical scans such as X-rays, MRIs and CT scans, as well as information from biological samples like blood tests, to detect early signs of illnesses. It can also analyse large amounts of data from huge numbers of people to help screen for risk of health conditions – like diabetes – before they develop.

Lots of research is underway at the moment to develop machine learning AI tools that can accurately do this. For example, researchers in Canada have trained AI with routinely-collected healthcare data from over 2 million people, to develop a tool that has been shown to predict type 2 diabetes five years ahead of its onset.

AI tools to detect those most at

risk of type 2 diabetes are still at the research stage. In the future, they could give us a way to simply and cheaply screen whole populations, to find who could benefit from targeted support to lower their risk.

Elsewhere, to help unleash the potential of big data and AI to improve and save the lives of people with diabetes, we're supporting the

**“AI can analyse large amounts of data from huge numbers of people to help screen for risk of developing health conditions”**



Diabetes Data Science Catalyst. This initiative is helping researchers use the UK's collection of electronic health records, to interpret and unlock new insights from vast datasets with the help of AI.

In the future, these data-driven AI approaches could help us move towards an era of personalised medicine, where AI could predict which diabetes treatment would be best for each individual and help decide how to tailor their care. >>



## Virtual support

AI-powered chatbots could provide information, answer questions, and offer advice and support to people with diabetes outside of their appointments with healthcare professionals.

For example, researchers from the University of West England and the National Institute for Health and Care Research (NIHR) are exploring whether a conversational AI chatbot could help supplement structured diabetes education. They're developing an AI system called ROMI (Relational Online Motivational Intervention) that can answer questions about type 2 diabetes and offer personalised support in an accessible way. It's being designed by the tech company Elzware, based on expertise and insights from people living with type 2, researchers and healthcare professionals. As a result, the team is confident that users' needs have been put front and centre.

The researchers will then run a trial to test ROMI with people with type 2 diabetes to see how effective and helpful it can be. In the future, harnessing the power of AI could be a cheap and easy-to-use solution for the NHS, helping more people with diabetes to live well.

**“AI-powered chatbots could provide information, answer questions and support people outside appointments”**



# AI to combat complications

**Researchers are also exploring the potential of AI to make predictions about who is most at risk of diabetes complications. Two projects we've been funding are looking into ways we can spot issues in eyes and feet, so action can be taken sooner**



## Deep learning to spot people at risk of retinopathy

Retinopathy is a complication of diabetes that affects the blood vessels in the eyes. It's currently detected through screening. People with diabetes are regularly invited to have photos taken of their eyes, and healthcare professionals study them to check for signs of damage. But there's no way at the moment to know who is at risk of retinopathy progressing or how quickly this is likely to happen.

With our funding, Dr Paul Nderitu has turned to AI to help. He's been using deep learning to predict how retinopathy progresses in different people. He gave images from diabetes eye screening programmes to

computers so they would learn the features that were linked with retinopathy progression.

Their findings showed that the AI could accurately predict who was most at risk up to three years in advance.

In the future, the team's work could be used to help spot people with diabetes who should be screened more frequently and those who could attend appointments less often. This would help make sure that people at a higher risk get the right care to identify damage and get treatment sooner, giving them a better chance of saving their sight.

It could also help prevent unnecessary appointments for people at low risk of retinopathy and free up healthcare resources.



**Dr Paul Nderitu**



### Using artificial intelligence to predict foot pain

In another project we're funding, Professor David Bennet at the University of Oxford has been using machine learning to tackle nerve damage in the feet, known as painful neuropathy. Around half of people with diabetes and neuropathy develop



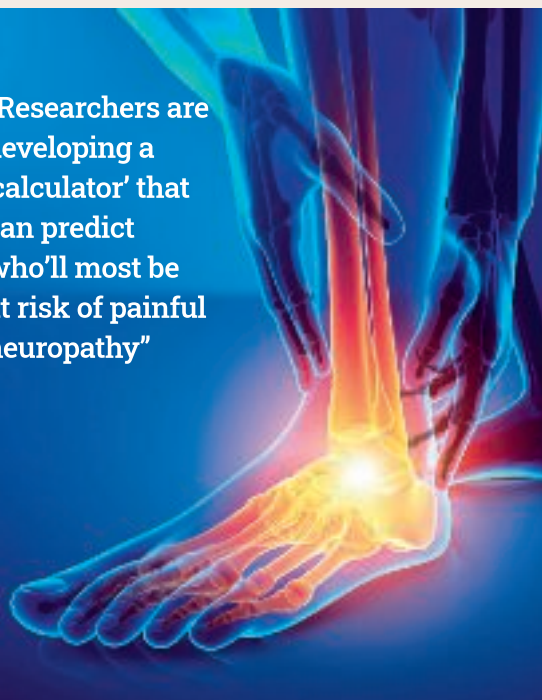
**Professor David Bennett**

chronic pain, which can have a huge impact on quality of life. Prof Bennet and his team are identifying the most important risk factors.

They're training their computer programme with data from two studies of people with painful and painless neuropathy and testing combinations of risk factors to find the best mixture. They'll use this to develop a 'calculator' that can predict who's most at risk of painful neuropathy.

This would allow healthcare professionals to direct the right support to where it's most needed.

"Researchers are developing a 'calculator' that can predict who'll most be at risk of painful neuropathy"



### Chasing a cure

Right now, AI is also helping scientists with our ultimate goal – finding a cure for diabetes. AI is helping to automate and hasten tasks inside diabetes research labs that once took a huge amount of manpower. This means scientists searching for cures can run studies and make discoveries much more rapidly.

For example, our Type 1 Diabetes Grand Challenge research fellow, Professor Sarah Richardson, is using AI to analyse images of pancreas samples to probe into the origins of type 1 diabetes. She's been teaching the AI to identify different types of cells and tissues, to investigate how the immune system destroys beta cells in type 1 diabetes and how the process may differ between people with the condition. This AI-aided



**Professor Sarah Richardson**

knowledge could help scientists develop new treatments that target different lines of the immune system's attack so everyone affected by type 1 could be matched to the best treatment for them.

In type 2 diabetes, Dr Hanieh Yaghootkar is using AI to unravel how where the body stores fat is linked to type 2. Knowledge that could open new avenues to preventing and curing the condition.

Research into AI holds a lot of promise, and scientists are working to make sure its uses go even further for people with diabetes, supporting them to live happier, healthier lives.

# World-first study to screen adults for type 1 diabetes

The research will identify people at risk of developing the condition to help them get the earliest, safest diagnosis possible



➔ Recruitment is now open for a world-first research study to identify adults at high risk of type 1 diabetes.

The Type 1 Diabetes Risk in Adults (T1DRA) study is recruiting 20,000 adults, aged between 18 and 70, to find those who are likely to develop type 1 diabetes in the future. It's led by Professor Kathleen Gillespie at the University of Bristol.

We launched a similar study for children – called ELSA – in 2022. This means the UK is now the first country in the world to offer type 1 diabetes screening in the general population for both children and adults in a research setting.

## Understanding type 1 diabetes in adults

We know that more than half of type 1 diagnoses are in adults. But scientists have mostly studied its development in children, so adult-onset type 1 diabetes isn't well understood.

T1DRA will answer important questions about how type 1 diabetes develops in adults and give us the first-ever picture of how many adults in the UK are at increased risk of developing the condition.

It will also mean that people found

to be at high risk of type 1 diabetes will get information, support and monitoring. This should help people to get the earliest, safest diagnosis possible – avoiding dangerous diabetic ketoacidosis (DKA) – and getting a 'soft landing' into life with type 1. They could also be invited to take part in clinical trials, testing new immunotherapy treatments designed to delay or prevent the condition.

T1DRA is funded by the Helmsley Charitable Trust and has been made possible by the UK's longest-running study of type 1 diabetes, called Bart's Oxford (BOX) family study, which we've funded over the last 40 years.

## How does T1DRA work?

People aged 18-70 years in the UK can take part in T1DRA – as long as they don't have type 1 diabetes – by visiting the study website: <https://t1dra.bristol.ac.uk>. Volunteers will be sent an at-home testing kit in the post, which involves a finger-prick blood test.

The research team will then examine the blood samples for signs that the immune system attack that causes type 1 diabetes has begun. These signs are called islet autoantibodies. They are proteins



used by the immune system to earmark insulin-producing cells for destruction. Islet autoantibodies can appear in the blood years, or sometimes decades, before people fully develop type 1 diabetes and experience any symptoms.

Most people – around 97% – will be told they are negative for autoantibodies and aren't at high risk. Those who are identified as high risk will be followed up by the research team to examine how many develop type 1 diabetes, and how quickly they progress to a type 1 diagnosis. Researchers will also identify which genetic, biological and environmental factors can be linked with type 1 developing quickly in adults.

Model Roxy Horner, 32, was





## TYPE 1 DIAGNOSIS IN ADULTS

- Although it's often diagnosed in childhood, people can develop type 1 diabetes at any age.
- Approximately two thirds of people with type 1 are diagnosed by age 30, and one third thereafter.

“Diabetes is relentless, and as a young mum, looking after a new baby and managing my condition can be challenging. I wish there had been a better way of preparing me for such life-changing news.

“The T1DRA trial is important because it will help teach us more about people who are diagnosed with type 1 diabetes as adults. I really hope the trial will get us a step closer to a time when it can be spotted early on so people can be more prepared.

“Type 1 diabetes can come on at any age and I'd encourage anyone reading this to sign up for the T1DRA trial today.”

### Screening for children

Children aged 3-13 years can also sign up to get screened for their risk through the ELSA study. Over 12,000 children have already taken part, and the team aims to recruit a further 8,000 children over the next year. You can find out more and sign up at: [www.elsadiabetes.nhs.uk](http://www.elsadiabetes.nhs.uk)

We need the diabetes community to help spread the word and encourage friends and family to take part in these crucial research studies. Together, we can bring us closer to the day when the risk of type 1 diabetes can be spotted early and a diagnosis prevented.

**“The T1DRA trial is important because it will help teach us more about people who are diagnosed with type 1 diabetes as adults”**

**Roxy Horner, who lives with type 1**

diagnosed with type 1 diabetes a month before her 30th birthday. She told us: “I'd been feeling unwell for some time but hadn't realised that some of my symptoms, such as tiredness and excessive thirst, were among the main warning signs for type 1 diabetes.

“Being taken to A&E and then being diagnosed with type 1 diabetes was such a shock, and things have never been the same.



# ASK THE EXPERTS

Our team answers your questions about diet, lifestyle or treatment

## EXPERT TEAM



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



**TASHA MARSLAND**  
Senior Clinical Advisor: Tasha has worked as a registered dietitian for 25 years.



**ESTHER WALDEN**  
Deputy Head of Care: Esther worked as a Diabetes Specialist Nurse for over 18 years.

**Q** I recently found out my 18-year-old daughter vapes. She was diagnosed with type 1 diabetes when she was six. I know that smoking can cause blood sugar levels to increase. What are the health impacts of vaping on people living with type 1 diabetes? I'm concerned for her.

**Tim, Hemel Hempstead**

**Douglas says:** The health implications of smoking are well known and researched. There is an increased risk of cancer, including lung cancer. Smoking causes damage to your heart and blood circulation, which can lead to an increased risk of developing conditions such as stroke, heart attack and heart disease, as well as damage to your lungs like chronic obstructive pulmonary disease.

The health implications of smoking and diabetes are also well known. Some of the toxic chemicals in cigarettes cause damage to the heart and blood circulation – combine this with diabetes, and the risk of developing these complications is even higher. Although not a



concern for your daughter, smoking is also a risk factor for type 2 diabetes. Getting support to stop smoking can reduce the risk of developing type 2 diabetes by up to 30–40%.

Smoking, in people with all types of diabetes, can cause blood sugar levels to rise and can affect the way cells respond to insulin, making it more difficult to manage blood sugar levels – this can lead to complications. One of the chemicals found in cigarettes – nicotine – is responsible for this. Nicotine is also a very addictive substance, which makes it hard to give up smoking.

Electronic cigarettes, also known as e-cigarettes or vapes, are devices that contain a liquid that's heated to make

a vapour, which people can breathe in. Vapes usually contain nicotine. Some studies have shown that vaping is less harmful than smoking – this is mainly due to there being less of the harmful toxins found in e-cigarettes compared to cigarettes. However, vaping is not risk-free, and the long-term health effects of e-cigarettes have not yet been established, as these are relatively new.

Children and young people should not vape as their developing brains and lungs are more sensitive to the effects. That's why it's illegal to sell nicotine vaping products to anyone under 18 or for adults to buy products for them. The NHS recommends that non-smokers and young people under 18 should not





**Q** I have type 2 and have started using a FreeStyle Libre flash glucose monitor. In the past, I have taken my empty sharps bin to my GP, where they also gave me a new one, but the receptionist told me they no longer take full sharps bins. How should I dispose of my sharps safely?  
**Rita, Stourport-on-Severn**

**Esther says:** We know that many people with diabetes struggle with disposing of sharps safely and that lack of information is a significant contributor to this.

In England, when someone is self-administering medications that produce sharps at home, their GP or healthcare professional must prescribe a suitable sharps bin. The standard prescription bin is usually 1 litre. Larger sharps bins are available on prescription. Some disposal services may also provide you with a replacement sharps bin. However, this may not be the size that you require – for example, CGM applicators will only fit in certain-sized sharps bins.

The GP or prescriber is also responsible for telling you how to dispose of the sharps bin when full. The arrangements vary by area. GP surgeries registered with the Environment Agency to accept this type of waste can take sharps bins once full. In some places, certain pharmacies can accept sharps bins and dispose of them. Otherwise, local councils can collect and dispose of them and other medical waste.

You can identify your local authority using a postcode search on: [www.gov.uk](http://www.gov.uk). Councils can charge for this service and may require a referral or authorisation from a healthcare professional to confirm you need a clinical waste collection. Whatever the arrangements in your area, the sharps bin prescriber is responsible for telling you about these and how to access them.

In Scotland, the local health board sets the process for disposing of the sharps bin. Speak with your GP and community pharmacy about options



in your area.

In Wales, you can take sharps bins to pharmacies, but speak with your healthcare team about larger bins, as these need to be collected from your home.

In Northern Ireland, community pharmacies should accept sharps bins from people administering medications themselves at home.

take up vaping. The UK Government has also announced plans to make it impossible for children aged 14 years and younger to ever be sold smoking products.

The research on the impact of e-cigarettes on type 1 diabetes is limited. Some research has shown that e-cigarettes may increase blood sugar levels. However, there is a lot more that needs to be understood about the effects of vaping on general health and in long-term health conditions, including whether they are linked to higher blood sugar levels and the biological process that could be behind that link.

■ For support to stop smoking and info about vapes, visit: [www.nhs.uk/live-well/quit-smoking/nhs-stop-smoking-services-help-you-quit/](http://www.nhs.uk/live-well/quit-smoking/nhs-stop-smoking-services-help-you-quit/)

Photography: iStock; Alamy  
 PLEASE NOTE: The experts can't take phone calls

#### WRITE TO

'Ask the experts,' Balance,  
 Diabetes UK, 126 Back  
 Church Lane, London  
 E1 1FH, or email:  
[balance@diabetes.org.uk](mailto: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](mailto:helpline@diabetes.org.uk)

#### SUPPORT FORUM

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

Our Head of Care, Douglas Twenefour, explains everything you need to know about a new generation of drugs to support weight loss in people with type 2 diabetes

# WEGOVY EXPLAINED



Launched in the UK in September 2023, Wegovy is now available on the NHS to support weight management in line with National Institute

for Health and Care Excellence (NICE) guidelines, alongside a reduced-calorie diet and increased physical activity.

The UK Government plans to funnel £40 million into piloting the expansion of weight loss management programmes beyond hospitals in a bid to make it easier for people to access weight loss medications such as Wegovy.

Drugs like Wegovy are an important and valid weight management tool for those living with or at risk of type 2 diabetes. It is our view that people should receive support to find the approach most appropriate for them – whether that involves medication, dietary changes or bariatric surgery – with the wraparound support of weight management services.

### What is Wegovy?

Wegovy, manufactured by Novo Nordisk, is a brand name for semaglutide, a GLP-1 analogue. This class of drugs mimics the endogenous incretin hormone GLP-1 that

**“Drugs such as Wegovy are an important and valid weight management tool for those living with or at risk of type 2 diabetes”**







### WHAT IS OBESITY?

■ A crude measure of obesity is body mass index (BMI). This is measured by calculating a person's weight (in kilograms) divided by the square of their height (in metres). A person with a BMI of 30kg.m<sup>2</sup> or more is generally considered to be living with obesity.

■ Research highlights that many people, including healthcare professionals, generally believe obesity is caused by factors within a person's control, focusing on diet and exercise without recognising how genetic, social and environmental factors can contribute to an individual's body weight.

■ Obesity is a complex health condition. The UK Government's Foresight Report, published in 2007, established that there are over 100 different factors that can contribute to weight gain and obesity. Many of these factors are either partially or completely outside a person's control.

■ If you're living with obesity, speak with your GP for a referral to weight management services available in your area, which may include local weight loss groups. These could be provided by your local authority, the NHS, or commercial services. You may have to pay for exercise on prescription – this involves a referral to a local active health team for a number of sessions under the supervision of a qualified trainer.

is released after eating. This helps the body produce more insulin when needed, helping reduce blood sugar in people with diabetes. It also helps reduce appetite, so people eat less, and slows down the movement of food in the gut so you stay full for longer.

Last year, NICE issued guidelines last year recommending Wegovy be prescribed to people with a particular BMI (usually 30kg/m<sup>2</sup> and over) and at least one weight-related health condition.

NICE recommends Wegovy to people with prediabetes or type 2 as an option for weight management within a specialist weight management service. This will depend on individual circumstances and factors such as their current treatment plan and risk of side effects.

People who are prescribed Wegovy within these specialist NHS services should also receive support with dietary advice and exercise.

Wegovy can't currently be prescribed outside specialist weight management services. These treat around 35,000 people a year.

But in June 2023, the Department of Health and Social Care announced a two-year pilot to tackle obesity, which will explore how Wegovy can be prescribed outside of these services, which are largely hospital-based. ⇨

### OTHER WEIGHT LOSS MEDICATIONS

#### ■ SAXENDA AND ORLISTAT

These are currently two other weight loss medications available on the NHS: Xenical (generic name orlistat), which is a capsule, and Saxenda, which is a brand name for liraglutide, a type of GLP-1 analogue that is injected daily.

Orlistat works by limiting the amount of fat

your body absorbs from the food you eat and can be prescribed by your GP. There is another brand name for orlistat, called Alli. You can buy this from pharmacies and need to take under the supervision of a pharmacist.

Currently, Wegovy, Saxenda and orlistat are the only medications that are licensed and approved for weight loss in the UK.



### OTHER SEMAGLUTIDE MEDICATIONS

#### ■ OZEMPIC AND RYBELSUS

Semaglutide is also licensed under the brand names Ozempic and Rybelsus. These are recommended by NICE and available on the NHS for managing blood glucose levels in people with type 2 diabetes.

Ozempic and Rybelsus are recommended for managing blood glucose in people with type 2, while Wegovy is recommended for weight management in people with or without type 2 diabetes.



## weight management

To make it available to more individuals who could be eligible, the pilot will explore how GPs could safely offer Wegovy and how the NHS can provide support. NICE estimates that over 4 million people could be eligible for Wegovy, so it is important that local health systems prioritise who is in most need.

### How does it work?

Wegovy can lead to weight loss as it is designed to suppress appetite. It mimics the action of GLP-1, which is released after eating, and slows down the movement of food in your gut so you stay full for longer.

The amount of weight you lose on Wegovy would depend on your personal circumstances, the support you receive while taking it and how long you take the medication.

In a major study – the STEP 1 clinical trial – people on the maximum dose lost 12% more of their body weight than those not taking the medication.

Crucially, both groups received advice to reduce their calorie intake and increase their physical activity levels, which shows the importance of making those changes to get the best out of any weight loss medications.

Like other weight loss medications, there is evidence of weight regain when people stop using Wegovy, so it is vital to continue to receive support around diet and physical activity.

### Possible side effects

Nausea is a common side effect when first starting Wegovy. Other side effects can include constipation and diarrhoea.

If you have retinopathy and take insulin, Wegovy may lead to a worsening of your vision, which may require treatment. Tell your doctor if you have retinopathy or if you experience any eye problems while taking this medication.

It is important to speak with your GP, nurse or dietitian to discuss weight management options, including weight loss medication, that may be helpful for you.

## LUCY'S STORY

**Lucy Long, 65, from Kent, lives with type 2 diabetes and has been prescribed Wegovy for weight management. She says:**



I discovered I had type 2 four years ago, about six months after I was diagnosed with breast cancer. I had no diabetes symptoms, but at that time, I weighed around seven stone more than I do now.

I was in the military for many years, and my weight was never an issue then. But when that chapter of my life ended, I didn't exercise nearly as much. I love healthy foods, like fruit and salads, but my portions were always massive. I had got into lots of bad habits.

I have a franchise advising and selling health insurance to companies and individuals, so you'd think I'd have been more aware of the impact of my weight on my health. But I was so busy working and trying to make ends meet there wasn't time to think about myself. Until I found a lump in my breast, I seemed healthy.

After my type 2 diagnosis, I started taking metformin, and I lost three stone in three months. I think I lost so much weight so quickly because I was going through cancer treatment. But then I stayed the same weight for some time.

About 18 months ago, I developed an infection that made my blood sugars dangerously high. I started using insulin and have really struggled to lose weight since.

At one of my clinic appointments, my consultant told me about a new drug called Wegovy. At the time, I was sceptical. I almost didn't believe it would work. But I want to do everything I can to improve my outcomes with both cancer and diabetes.

It's a weekly injection, and my dose has been gradually increased over time. At first, I felt it wasn't working, but after a while, I started thinking differently about food. I'd go to eat something and think, 'I'm not that hungry.' The fact that it was changing the way I thought about food actually made me feel a bit panicky at first. Now, if I eat bigger portions, I feel stuffed and often can't face eating more food.

I'm still having cancer treatment, and I know I'm not going to lose weight overnight. I also know I won't be taking Wegovy forever. Wegovy has made a huge difference in my diabetes management. It's such a useful tool to help improve your health. I'd love to put my type 2 in remission one day. I had my head in the sand about my weight for many years, and I'm not trying to shame anyone who is in a similar situation, but I believe you need to help yourself as well.



### Supply issues

Novo is monitoring demand for Wegovy due to supply issues of glucagon-like peptide receptor agonists, which has impacted those with type 2 diabetes getting access to these medications

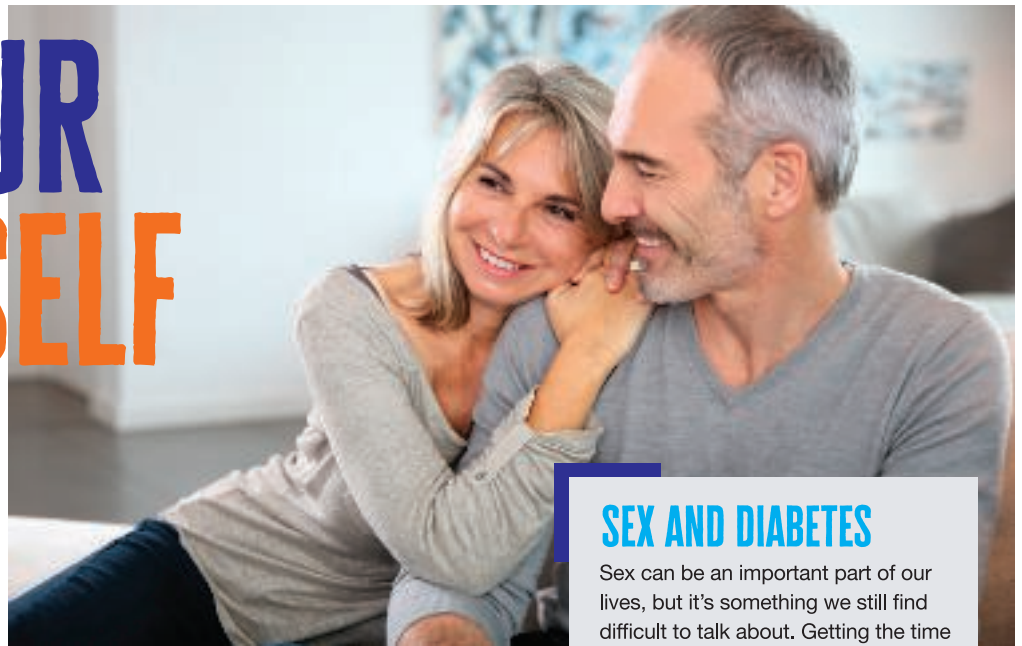
The supply of Wegovy is expected to be "constrained for the foreseeable future," which is why a proportion of available supply is allocated for use only within the NHS.

■ For more information and support, call our helpline on 0345 123 2399, or visit: [diabetes.org.uk/bal-Wegovy](https://diabetes.org.uk/bal-Wegovy)



# BE YOUR BEST SELF

**A revolutionary home-use device using radiofrequency technology could help men living with diabetes and erectile dysfunction**



## SEX AND DIABETES

Sex can be an important part of our lives, but it's something we still find difficult to talk about. Getting the time and support to talk about sexual problems with a healthcare professional is part of the care you're entitled to when you have diabetes. If you're not getting this and you need it, don't be afraid to ask your healthcare team. They're here to help.

■ [diabetes.org.uk/bal-sex](https://diabetes.org.uk/bal-sex)

➔ Having high sugar levels for a period of time can damage your blood vessels and nerves, including the ones that supply your penis. This can restrict the amount of blood flowing to your sexual organs, so you can lose some sensation. This could mean you have difficulty getting aroused, both physically and in how you feel.

The most common type of sexual issue in men is erectile dysfunction (ED), also known as impotence.

### Driven by data

Vertica, by Ohh-Med Medical, is a 'world first' treatment for ED that aims to restore and rehabilitate collagen fibres in the penis.

Developed by urologists and experts in radiofrequency technology, Vertica delivers low-frequency radiowaves to the penis to improve the function of erectile tissue. This helps 'trap' the blood, improving the erectile mechanism for a sustained period.

The device is supported by efficacy and safety data from a pilot clinical trial published by the peer-reviewed International Journal of

Impotence Research. The results were based on 28 participants – 42% living with diabetes – who had ED for at least six months. More than 85% of participants reported improved erectile function and quality without any side effects.

Vertica is used at home, with three 30-minute treatments per week recommended for the first month, then twice weekly for 30 days. Many men reported experiencing results after just four to six weeks.

Fabio Castiglione, Consultant Urologist and Andrologist at King's College Hospital NHS Foundation Trust and Associate Professor at the University College London (UCL), said: "Vertica is a revolutionary idea and,

### WHY VERTICA?

- **treat without leaving home**
- **long-term results**
- **prescription-free**
- **safe and noninvasive**
- **clinically tested – above 85% success**
- **CE-MDR 2979 approved**
- **approved by the MHRA**



based on the results of the small clinical trial, one that is potentially life-changing for men suffering with ED.

"This device treats the outflow and not just the inflow and is a creditable alternative solution to other available treatments designed to improve the erectile mechanism.

"Vertica is drug-free, suitable for home use, with long-lasting results."

Ohh-Med Medical founder Daniel Lischinsky said: "Vertica is a safe and easy-to-use, noninvasive medical device, designed to improve ED in the long term. It is not a medication; no prescription is required, and there are no side effects.

"Vertica actually treats the root cause of ED, rather than just the symptom. It improves male self-esteem and confidence by supporting a full and active sex life."

■ **To find out more, visit:**  
<https://vertica-labs.com/>  
**Or call: 020 4525 1390**

“I realised I’m good at my job, and I’m able to use my diabetes to be even better at it”





# BUNDLES OF JOY

**Diabetes Specialist Midwife Nina says her experiences with type 1 and fertility struggles have shaped the care she gives her patients**

**N**ina Willer had been working as a diabetes specialist midwife for six years when, she says, “something really magical” happened.

Having lived with type 1 diabetes for 18 years, she had a revelation.

“Something just clicked where I realised I’m good at my job, and I’m able to use my diabetes to make me even better at it. I’m completely at peace now with my diabetes. If given the option at this point, I wouldn’t take my diabetes away.

“I feel like I get something out of my job that helps me with my diabetes and vice versa. I’m so grateful to be surrounded by amazing women living with diabetes of all types. I feel so empowered and bolstered by them.”

Nina was 20 and in her final year of studying to be a midwife when she developed type 1 symptoms.

“During my midwifery training, I had a huge interest in diabetes,” she says. “I remember doing a project on the condition and thinking, ‘how do people do this? I can’t even look at someone else doing an injection!’

“But although I was interested in diabetes, I didn’t really understand it. And I initially shrugged off the symptoms. Feeling tired is part and parcel of being a student midwife, and I had a raging thirst and pounding headache, but it was only when my eyesight became really blurry that I realised I needed to seek medical help.”

Nina saw her GP, who sent her to hospital, where she was admitted and

diagnosed with type 1 diabetes.

“I think at first I was naïve and hopeful, telling myself that at least my eyesight problems would improve,” she explains.

But, staying on a ward with older people with diabetes who were experiencing difficulties or living with complications was a frightening experience.

“I was 20 years old, and everyone expected me to be grown up and take my diagnosis on the chin,” she says. “I remember being unable to sleep at 2am, and I just cried and cried. It felt like I’d been given a death sentence.”

In the months after her diagnosis, Nina struggled to come to terms with and manage her diabetes.

“I didn’t really know what I was doing,” she recalls. “One day, I called my GP to ask for help, and he gave me a roasting for eating half a tin of beans. I really struggled until I met a great consultant and confessed that I didn’t want to take my insulin any more. They supported me through that period.”

Being referred for an insulin pump was a turning point.

“I couldn’t believe my consultant thought I was worth investing in as a person, and I’ll never underestimate the value of that. When she said she believed in me, I was completely bowled over. That was a real game-changer. I was determined not to let her down,” says Nina.

When Nina and her husband, Rob, decided to start a family, she discussed their plans with her diabetes team. They advised to wait a bit longer, to try to get her blood sugars more consistently stable.

Most women with diabetes have a healthy baby, but planning for pregnancy when you have the condition is really important. Your GP or diabetes nurse can give you advice and will refer you to a preconception clinic, where you’ll get information about managing blood sugar levels, which medication you need to change or stop, taking folic acid, and how to plan for any potential problems.

Nina says: “I had a preconception plan because when you have type 1 or type 2 diabetes, you do need to plan ahead due to the risk of complications.

“But even with all the effort in the world, my levels were just a bit too high. As a midwife, I was well-informed, and I didn’t want to take any risks. But feeling that diabetes was getting in the way of having children was a hard pill to swallow. I was a bit angry with my condition at that point.”

After a year of trying to conceive, Nina and Rob had fertility testing before they embarked on their first cycle of IVF.

“We were very open about our IVF journey, believing the more people we had behind us, the stronger we would be. The biggest problem was the effect of the IVF



**Hybrid closed loop was a key feature during Nina’s pregnancy with Blythe**



Nina's had many milestones at home and work



treatment on my glucose levels,” recalls Nina.

The couple conceived during their third and final IVF cycle, and in March 2016, baby Ada was born at 36 weeks.

“When I was pregnant, managing my diabetes was my full-time job,” says Nina. “I had a few dicey moments with hypos. The hospital tried to find the best technology they could for me, but it just didn’t exist at that point.”

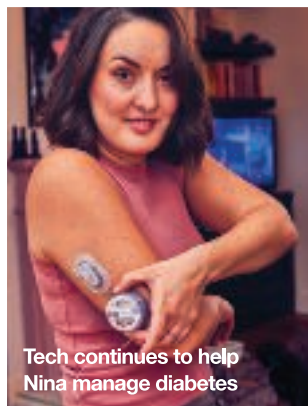
In 2019, a cycle of IVF using a frozen embryo sadly didn’t work. Months later, Nina was stunned to discover she’d conceived naturally.

“Having had years of infertility, we did not expect to be getting pregnant accidentally,” says Nina. “As a diabetes specialist midwife, I always stress the importance of preconception care and planning, so a surprise pregnancy was quite embarrassing!”

Nina explains that her continuous glucose monitor (CGM), which was a Christmas gift from her parents, meant that despite the lack of planning, her blood sugars were “in a pretty good place” when she discovered she was pregnant.

During this pregnancy, Nina took part in the AiDAPT trial, where she was given the opportunity to use an advanced hybrid closed loop system. This technology uses a CGM that can ‘talk’ to an insulin pump and an algorithm to calculate how much insulin is needed to keep blood sugar levels in range.

“It was so much less effort, and some weeks I had 95% time in range,” says Nina, who gave birth to her second daughter, Blythe, at 36 weeks in July 2021.



Tech continues to help Nina manage diabetes

“We’re really lucky where I work that we’re able to get loads of people using hybrid closed loop systems during pregnancy,” says Nina. “It’s a huge disadvantage if you can’t access technology because managing diabetes during pregnancy is a lot of work.

“People always want to stay on hybrid closed loop systems after pregnancy because it’s so transformative. But there’s still work to be done to make it more accessible. In my trust, pregnant women have the choice of one insulin pump and sensor available on the NHS, and if a person can’t afford a mobile that works with that, I find it heartbreaking.”

Attending the Advanced Technologies and Treatments for Diabetes Conference in Berlin in 2023 was a big moment for Nina.

“Before then, I’d made a conscious decision not to tell my patients I have diabetes,” she says. “My diabetes is completely different to that of all my patients and I didn’t want to take away from their own experience.

“But at this conference, there were so many speakers who were living with type 1. I realised I was really lucky to be there, with people from all over the world who were trying to be better for their patients. I thought, ‘I need to be proud of this. Someone might gain something from it.’

“Diabetes is a condition where, sometimes, you can feel a bit isolated. I had a lightbulb moment where I thought, ‘people really do care!’

“I feel strongly that you don’t have to have diabetes to look after people with diabetes well, but if it’s appropriate, I do share the fact I have diabetes with my patients.



Smiles for miles:  
Nina, with husband,  
Rob, and daughters,  
Ada and Blythe



## HAVING A BABY WHEN YOU HAVE DIABETES

There are many things to look forward to when you're pregnant. But having diabetes to manage on top of pregnancy means there is a lot to think about:

- Pregnancy hormones can make managing blood sugar levels especially difficult despite your best efforts. That can be due to insulin resistance. This is quite common from weeks 16–20 onwards, and most people find they need to take more insulin, especially before meals.
- You may develop high blood pressure or be at risk of kidney or eye problems, as pregnancy can worsen existing complications. You'll have eye and kidney checks before and during pregnancy.
- Ask for help if you need it. Speak with your midwife and tell them how you feel.
- You can also contact our helpline on **0345 123 2399** if you want to chat through any worries or ask any questions. Our forum – [diabetes.org.uk/bal-forum](https://diabetes.org.uk/bal-forum) – can also connect you with people who have been there and know what it's like to manage diabetes alongside pregnancy.

“Professor Helen Murphy, who is a colleague and friend, has really encouraged me to be confident to speak about how it feels to be on the other side of things.”

Nina has recently joined the National Pregnancy in Diabetes Audit (NPID), part of the National Diabetes Audit. Her role allows her to represent health care professionals and pregnant women with type 1 to improve services nationally.

Another issue Nina would like addressed is stigma. She says: “That’s a huge challenge. Every day, I encounter lots of misconceptions about pregnancy and diabetes. There’s also this really strange idea that getting type 2 diabetes is your fault and should be treated differently to type 1. But with type 2, so many factors are at play. One thing that we never do is blame the patient. We really care about all people with diabetes, and I hope our patients know that.”

- **Our website has lots of information and guidance about diabetes and pregnancy. Go to: [diabetes.org.uk/bal-pregnancy](https://diabetes.org.uk/bal-pregnancy)**

## HYBRID CLOSED LOOPS AND PREGNANCY

- If you're pregnant and have type 1 diabetes, if you're in England, Wales and Scotland, you should qualify for a CGM on the NHS during pregnancy. If you're in Northern Ireland, check with your healthcare team.
- If you are unable to use a CGM or would prefer to use a flash glucose monitor (FreeStyle Libre), then you should be offered this.
- Under the new recommendations, hybrid closed loop has been recommended for people living with type 1 diabetes who are pregnant or planning a pregnancy.
- The tech itself is backed by decades of Diabetes UK-funded research, which your membership helps make possible. Since the 1970s, when we funded the UK's first-ever 'artificial pancreas', we've been investing in research to improve the technology and build the evidence we need to widen access to it ever since.

# HAPPINESS HACKS



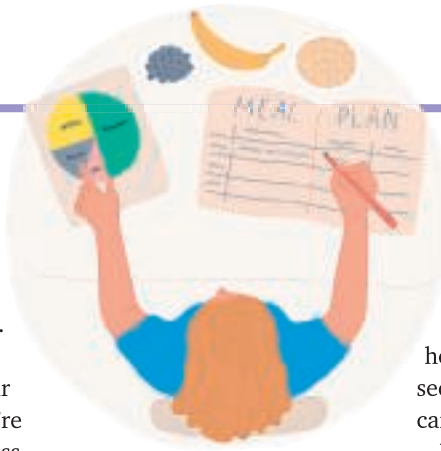
When you live with a relentless condition like diabetes, life can sometimes feel unfair, and it's easy to get caught up in the daily grind. Here, we have some tips to help you get into a more positive mindset



### Food and mood

Making healthier food choices is important to manage your diabetes and to reduce your risk of diabetes complications. When you live with diabetes, your blood sugar levels can affect how you're feeling, while the relentless task of managing them can have a huge impact on your emotional wellbeing.

Managing your diet and diabetes can seem complicated, so if you're feeling overwhelmed, try to keep things simple and stick to main principles of healthy eating. Choose healthier carbohydrates such as fruit, veg and wholegrains like brown rice, buckwheat and whole oats. Try to eat your 5 a day, limit salt, added sugar and processed meats, and choose healthier fats such as nuts, seeds and avocados.



The glycaemic index (GI) tells us whether a carbohydrate-containing food raises blood glucose quickly, moderately or slowly. Research has shown that choosing low-GI foods can help manage long-term blood glucose levels in people with type 2 diabetes.

Whatever type of diabetes you have, eating foods that release energy more slowly, like wholegrain bread, nuts and seeds, and brown rice can help you manage your sugar levels and

avoid the lethargy and mood swings that high levels can bring.

Your brain needs omega-3 and omega-6 to keep it healthy, so healthy fats like nuts and seeds, avocado and oily fish can help with brain function.

Most of us know that fish is good for us, but oily fish like salmon and mackerel are even better. These are rich in something called omega-3 oil, which helps protect your heart. Try to aim for two portions of oily fish a week.

Drinking plenty of fluids, avoiding too much alcohol and managing your caffeine intake can also help improve your mental health.

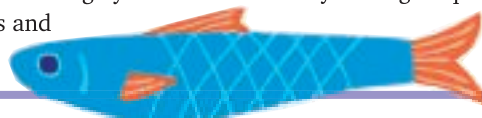
Water is the best all-round drink. If your family likes flavoured waters, make your own by adding a squeeze



of lemon lime, or strawberries.

Alcohol is high in calories, so if you do drink and you're trying to lose weight, think about cutting back. Try to keep to a maximum of 14 units a week. But spread it out to avoid binge drinking, and go several days a week without alcohol.

If you take insulin or other diabetes medications, it's also not a good idea to drink on an empty stomach. This is because alcohol can make hypos more likely to happen. Some people are more sensitive to caffeine than others. Check labels for the caffeine content of any shop-bought drinks.



### Move your body

Being active releases endorphins, which can relieve stress and improve your wellbeing. The NHS recommends adults do some type of physical activity every day. Things like cycling, swimming and jogging can be great for your overall health, and activities like stretching at home, dancing or gardening can also release tension and reduce anxiety.

Physical activity doesn't need to break the bank – free running events like parkrun are great if you want to be active and feel part of a community. Visit: [parkrun.org.uk](http://parkrun.org.uk)

The NHS has free instructor-led exercise videos you can do in the comfort of your own home. Visit: [nhs.uk/conditions/nhs-fitness-studio](http://nhs.uk/conditions/nhs-fitness-studio)

Being active can also improve your diabetes management by increasing insulin sensitivity, help with your blood pressure, help improve cholesterol and improve your sleep and energy. Talk with your healthcare team for advice before starting any new physical activity.

■ For free exercise videos and guides, visit: [diabetes.org.uk/bal-exercise](http://diabetes.org.uk/bal-exercise)



### Be thoughtful about your time online

Social media can be a wonderful tool for connection, self-exploration and expression, but it can also be damaging to our mental health if we spend too much time on it.

Try to limit your time online and put your phone in another room if you're feeling that pull towards it. Follow accounts that make you feel good about yourself, and consider unfollowing ones which aren't.



### Practise mindfulness

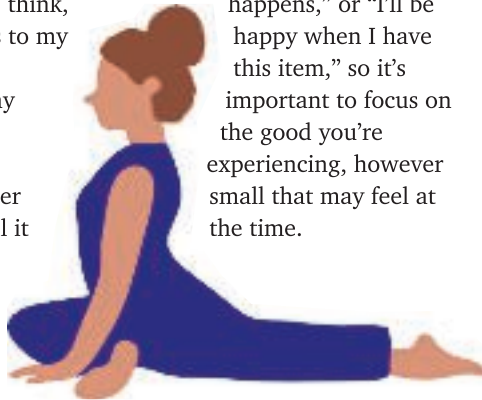
Many people get stuck in a cycle of negative thought patterns when they're feeling down and can be really hard on themselves. It's good to get into the habit of talking to yourself like a friend. When you start to criticise yourself, think, "Would I say this to my friend?" If not, reframe it and say something kind.

The more you practise, the easier and more natural it will feel.

Practising gratitude can help people acknowledge

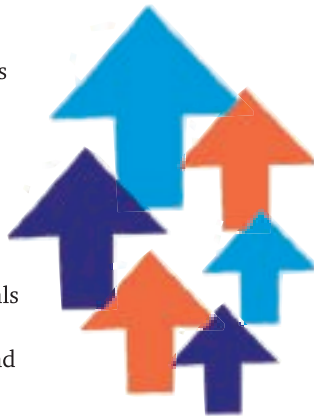
the good in their lives. Research has shown it helps people feel more optimistic and feel better about their lives compared to people who focus on things that aggravate them.

It's tempting to think, "I'll be happy when this happens," or "I'll be happy when I have this item," so it's important to focus on the good you're experiencing, however small that may feel at the time.



### Forward plan

Although living in the moment is an important part of improving your mental health, that's not to say you shouldn't get excited about the future. Having a sense of direction and optimism can contribute to your happiness. Setting new goals or even having something fun planned in the diary with a friend can boost your wellbeing.



### Get creative

Having a creative hobby can positively affect your wellbeing. When you're concentrating on a project, you're less likely to think about all the things that are worrying you. And seeing something you created come to life can boost your self-esteem and manage your emotions through your chosen art expression. You don't have to pick up a paintbrush – you could start baking, write a short story, take up knitting or start a scrapbook.



### Find your community

Nurturing relationships can increase our feelings of self-worth and are linked to lowering the risk of heart disease and changes in thinking, memory and concentration as we get older.

Connecting with other people living with diabetes who really understand what you're going through can give you a sense of community. If you feel isolated, ask your GP about social prescribing – where a link worker will help you connect with activities, groups and services in your local area.

■ Find a support group in your local area: [diabetes.org.uk/bal-groups](https://diabetes.org.uk/bal-groups)

■ Join our free support forum: [diabetes.org.uk/bal-forum](https://diabetes.org.uk/bal-forum)

### Get outside

Spending time in nature can improve your mental health and reduce stress. Sunlight increases serotonin in the brain, reducing symptoms of depression and anxiety. You don't have to go on a hike round a nature reserve to feel the benefits of being outside. Just being in a green space with fresh air can do wonders for your mood.

■ To find a green space near you, visit: [www.fieldsintrust.org/about](https://www.fieldsintrust.org/about)



### Practise kindness

Small acts of kindness like offering a friendly smile to a stranger or a compliment to a friend, offering our seat on public transport or volunteering in our community are just some ways to help others feel better and, in turn, boost our happiness.

■ For more wellbeing tips, visit: [www.nhs.uk/mental-health/self-help/tips-and-support/how-to-be-happier](https://www.nhs.uk/mental-health/self-help/tips-and-support/how-to-be-happier)







# IN THE DRIVER'S SEAT

When you live with diabetes, there can be extra considerations when it comes to taking to the road. Here's everything you need to know

**➔** The rules around driving with diabetes can sometimes feel like a lot to remember – when to check your sugar levels, what level is safe and what to do if you have a hypo. Even the process of applying for licences itself can be confusing.

Although most people with diabetes can drive without any problems, it doesn't always seem that way. So, what do you really need to know about driving with diabetes?

## Driving safely

The main things about diabetes that can affect your ability to drive safely are:

- If the medication you use to treat your diabetes means you're at risk of

having a hypo – where your blood sugar drops below 4mmol/l).

- If you develop diabetes complications that make it more difficult for you to drive – like issues with your eyes (retinopathy) or nerve damage (neuropathy).

## Driving and hypos

If you're at risk of hypos, you'll need to follow certain rules before you drive. This includes people taking insulin permanently and some who take medication like sulphonylureas. If you're not sure if you're at risk, speak with your diabetes team or GP.

If you usually check your blood sugars, you must follow the rules on when to do this if you drive. Speak to

your healthcare team if you're not sure if you should be checking your blood sugars, as it depends on your medication. Every time you drive, you'll need to check your blood sugars no more than two hours beforehand.

If they're above 5mmol/l, then you can drive as usual. 'Five to drive' is a good way to remember. If they are between 4 and 5mmol/l, have a carb-containing snack. If they're less than 4mmol/l, you need to treat your hypo and wait until your levels are back up to at least 5mmol/l – then wait another 45 minutes before you drive.

Whenever you drive, make sure you have hypo treatments in the car. Eat regularly, take breaks and don't put off meals on a long drive.



## Requirements to drive

Driving licences are issued by a government body called the Driver and Vehicle Licensing Agency – the DVLA, or just the DVA in Northern Ireland. If a health condition could affect your ability to drive safely, the agency may give you a “restricted” driver’s licence, which needs to be renewed more regularly than a standard one (at least every three years).

Many people with diabetes have restricted licences because the condition can impact things like awareness, consciousness, mobility and vision.

When you apply for a new driving licence, you’ll need to answer some questions about your health and provide contact details for your diabetes team in case the DVLA needs more information.

Most people apply for a car or motorbike (“Group 1”) licence. The medical questionnaire for this, which covers things like hypos, hypo awareness and eyesight, should be fairly straightforward. But occasionally, things do go wrong, and people have difficulty getting a new licence.

In some cases, this is because they do not meet the DVLA’s requirements to drive. In others, something could have gone wrong during the application process.

The questions on the medical forms can be confusing, and sometimes people answer incorrectly by mistake. If this happens to you and your licence is revoked, you can appeal. But this can leave you without a licence for a period of time.

If you drive large vehicles or lorries, you’ll have more thorough and frequent assessments, and your licence will need to be renewed every year. You can learn more about this kind of licence (a



**“We want the DVLA to extend the period of validity for people with Group 1 licences”**

“Group 2” licence) on our website.

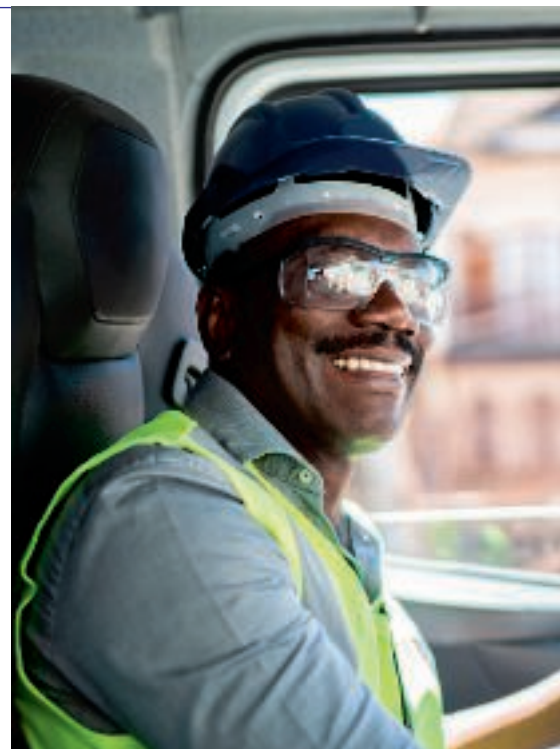
Once you’ve got your licence, you’ll still need to contact the DVLA if certain things change about your health. Severe hypos – where someone else needs to assist you – are one of the main reasons. If you’ve lost hypo awareness, you can’t drive and would need to inform the DVLA.

Over the course of a year, if you have more than one severe hypo while you’re awake, you’ll need to tell the DVLA. If you have one while driving, you need to stop driving and let them know right away. The agency will revoke your licence, but you can apply for a new one after three months.

If you have a car or motorbike licence (a “Group 1” licence), you no longer need to tell the DVLA about severe hypos that occur during sleep. But you do need to inform them if you have had more than one severe hypo while awake that needed the assistance of another person, within the last 12 months.

If you have a “Group 2” licence to drive a bus or lorry, you must stop driving these vehicles and tell the DVLA if you have a hypo that needed the assistance of another person, even if this happened during sleep.

All drivers must tell the DVLA if they have any degree of impaired awareness of hypos.



## Licences and complications

As well as hypos, issues with your sight may affect driving safety. Complications like retinopathy can affect your vision, so you’ll need to alert the DVLA if you develop any eye problems.

If you do this, the agency might ask you to take a special eye test. They will recommend an optician near you and pay for it if you need one.

If you have an eye issue that gets better with treatment, you should be able to reapply for your licence if you’ve been disqualified on the basis of your sight.

Complications like neuropathy and heart issues can also affect driving. In some cases, the DVLA needs to be notified of these complications. Ask your diabetes team for advice if you think this might affect you.





**IMPORTANT**

You can be fined up to £1,000 if you don't tell the DVLA about a condition that affects your driving. You may be prosecuted if you're involved in an accident as a result. For the latest guidance, visit: [www.gov.uk/diabetes-driving](http://www.gov.uk/diabetes-driving)

**Our drive for fairer rules**

Many people with diabetes find the process of getting a new licence frustrating. We want the DVLA to extend the period of validity for people with Group 1 licences so they don't have to apply so often. These tend to last for three years, but can be shorter.

Renewing so regularly may leave you feeling like "you're exposing yourself to a potential risk" that most other people don't have to go through, says our Policy Manager, Nikki Joule, who helps campaign for better policies around driving. She adds: "A simple mistake because of ambiguity of wording can end up costing people with diabetes their independence."

"It's always complicated to get laws and policies changed. And the government and DVLA itself can be very slow at making change.

"But we have had victories before, like enabling people with car and motorbike (Group 1) licences to use flash and continuous glucose monitors (CGMs) to check their sugars for driving.

"We now want this option to be extended to people with Group 2 licences for larger vehicles. These drivers still have to record their blood sugars daily by fingerprick to maintain their licences, even if they use a Freestyle Libre or CGM."

But any updates to the rules, Nikki warns, are likely to take time.

Campaigners hope, however, that change is on the horizon. The DVLA has been under review since June to ensure it is efficient, accountable, effective and well governed. We are among many organisations that have the opportunity to respond during the review and raise any concerns they have over licensing. We have alerted the review team to the problems that people have communicating with the DVLA and the lack of clarity in the information and forms.

We have also submitted a response to a public consultation with evidence of what needs to change to improve licensing for people with medical conditions. This could ultimately mean decisions around issues like diabetes happen faster in the future.

■ **If you feel uncertain about how to respond to the questions on the DVLA medical form, ask for help from your diabetes team or call our helpline on 0345 123 2399 (from England, Wales or Northern Ireland) or 0141 212 8710 (from Scotland)**

■ **For more info, visit: [diabetes.org.uk/bal-driving](http://diabetes.org.uk/bal-driving) or [www.gov.uk/government/organisations/driver-and-vehicle-licensing-agency](http://www.gov.uk/government/organisations/driver-and-vehicle-licensing-agency)**

**TONY'S STORY**

**Tony Fox, 55, from Solihull, has lived with type 1 since he was 10. He uses a T:Slime pump and a Dexcom CGM in a hybrid closed loop system. He says:**



I'm a web developer, and while I tend to work remotely these days, I regularly used to commute to an office.

I was renewing my driving licence in 2016 when a question on the medical form about hypos and needing assistance caught me off-guard. The wording had changed since the last time, and it confused me. I answered incorrectly and had my licence revoked.

Suddenly, I had to rely on other people to give me lifts. The impact on my daily life was profound. I lost so much independence.

I appealed the decision, and with the help of a really supportive GP, I was able to get my licence back about a month later. The process was emotionally taxing and had a major psychological effect. I went through a

really dark time as I waited to find out whether I would be able to drive again. I found myself checking the DVLA website all the time for any kind of update.

Today, it still feels like a bureaucratic lottery when I fill in my medical form. The three-year cycle makes me feel anxious long before I actually have to renew.

The last time I renewed my licence, I noticed that some of the questions had changed again. Some were confusing. One asked how many hypos I'd had over the last year while awake, for example. If that refers to regular daytime hypos, that number could seem really high to the person reading the answers! It feels like whoever wrote the questions doesn't really know what it's like to have diabetes.

Tech means I have so much more information than I ever did about my health. But it feels like licensing is stuck in the past. The medical forms need to be clear and really reflect what it's really like to live with diabetes.



Mum Judith,  
who lives with  
type 1, is proud  
that daughter,  
Sophie, is  
involved in  
diabetes research



# HEAR US ROAR



## To mark International Women's Day on 8 March, we're celebrating the stories and contributions of some of the wonderful women who make up our incredible diabetes community

### "It's a shock whatever age you're diagnosed"

**Judith Walker, 55, from Cumbria, lives with type 1 diabetes. Her daughter, Sophie, researches the condition.**

**Judith says:**

When Sophie said she was going to do her PhD in type 1 research, I did question whether she had only gone down that path because I had been diagnosed in 2019. But it became apparent that she found the subject extremely interesting and really wanted to make a difference.

The first week after my diagnosis was a bit of a blur. It was such a life-changing thing.

I'm quite a positive person, but I did have a wobble when I saw my diabetes specialist nurse (DSN) a few months later. I burst into tears, and she said she knew this was coming as I was so organised and upbeat – something had to give. Everything had built up, and I think I just needed to blurt it out.

Sometimes I'll still have the occasional moment of frustration, but most of the time I think diabetes is not going to beat me. I'm going to carry on my life as I did before but just with the added complication of diabetes.

When I was diagnosed, I thought I couldn't do certain things, but after reading about the condition and talking to healthcare professionals, I know

I can, I just have to plan and understand my body more. The 'Carbs and Cals' app definitely helped with carb counting, but there was a lot of trial and error.

I'd like to see mental health being taken more seriously in healthcare. My DSN is very good, but I don't think mental health is taken as seriously as it should be. I'd had 51 years of 'normal life.' It's a shock whatever age you're diagnosed, but it was a big adjustment for me. I didn't really get that reassurance that everything was going to be alright. I'm quite a positive person and have a good support network, but if someone is struggling and is by themselves, it can be a serious problem.

It was quite difficult going through the menopause and being diagnosed with diabetes because the symptoms of my hypos are similar to a hot flush, and I was dealing with tiredness too. I was at the start of my menopause journey and, at night, I thought I was having hot flushes and night sweats, but I was actually having a hypo. Now, I have a FreeStyle Libre glucose monitor, which helps immensely.

Sophie told me about Diabetes UK's Family Weekender events after she volunteered at one and told me how incredible it was.

The Events team is amazing, and the children get so much out

of it. I go there thinking I'll be showing them that they can do whatever they want despite their diabetes, but the children all know that – we just have to encourage some of them. It's nice that the parents get so much out of it, too.

You make brilliant friends and share information with each other. You'll see the same faces again and again because people love volunteering. I've come away with things to think about in regard to my own diabetes care.

Sophie and I spend a lot of

time together and share interests like baking, yoga and going to independent cafés. We've always been very outdoorsy, and we live near the Lake District, so we like to walk and run

up the mountains.

Me and Sophie's dad are immensely proud of her achievements and her commitment to type 1 diabetes research. It is so interesting to hear about the research that is being undertaken with the hope of a cure or to make the lives of people living with type 1 easier, as I wouldn't always hear about everything that is going on. It is also, however, frustrating to hear about the lack of funding for type 1 research.

■ Find out about our latest research at: [diabetes.org.uk/bal-research-impact](https://diabetes.org.uk/bal-research-impact)

**Sophie Walker, 26, from Cumbria, is a scientist who studies type 1. Sophie says:**

I was really upset when my mum was diagnosed. But then, being a scientist, I just started trying to understand what was going on.

When I came home from university, I saw how different everything was. The spontaneity around food had gone.

Around that time I was doing my Masters and wanted to research type 1 diabetes. I joined Professor Shareen Forbes' team, working to improve the outcomes of islet transplant therapy.

Islets are clusters of cells in the pancreas that can be transplanted into the liver of someone with type 1, so they can produce their own insulin again. But there are a few problems associated with islet transplants, including that lots of the islets can die off, and it's not an option for a lot of people. My PhD project was looking at how microparticles loaded with drugs

could be transplanted with the islets so that they can survive.

Mum having diabetes was a good motivator. If I was having a bad day in the lab, I knew there was a good reason to keep going. There were some promising findings and hopefully the study can continue.

I'm moving on to a project in Exeter that is trying to figure out why type 1 happens in the first place. I'd also love to help work towards an end to the postcode lottery around access to technology.

Mum and I love the Family Weekender events, they're just huge amounts of fun. It's nice to see how much Mum gains from it, and it's great to meet people. There are people from such wide backgrounds with various connections to diabetes, and it's lovely when families tell us how much they've got out of it.

**“Mum and I love the Family Weekender events, they're huge amounts of fun”**

■ Find our about our Family Weekender events: [diabetes.org.uk/bal-family-weekender](https://diabetes.org.uk/bal-family-weekender)



**Parul's role as a community health champion allows her to share her diabetes experiences**

## **“I do think you need a good support network”**

**Parul Begum, 25, from Walsall, lives with type 2 and lost both her parents to diabetes complications. She says:**

I knew my parents had type 2 diabetes, but it wasn't until I was diagnosed aged 18 that I started to think about what it meant. The healthcare professionals I encountered used clinical language, and I didn't know about support groups or know anyone young with type 2. I felt like I couldn't relate to anyone or share what I was going through, and that was hard.

When I was young, my mum had lots of health problems, including heart attacks, strokes and a triple bypass. When I was in sixth form, she had a leg







amputation and was registered blind, and my dad had a major stroke around the same time. After the stroke, his life really changed. He wouldn't go out, and his speech was affected.

When I was 19, I had to leave university to look after my parents while my brother worked full-time to support us all. It was a lot of pressure. I would do night shifts at a care home and then come back home to take care of them. I never felt at ease because I was always worrying about them.

I had to grow up very fast. But the stress impacted my diabetes – I wasn't eating properly, taking my tablets or checking my blood sugar levels.

My dad passed away when I was 20, and my mum died the year after.

My mum was amazing, she was a

**“I feel proud that I can help – I don't shy away from my diabetes anymore”**

strong woman and helped so many people. She helped translate for people in the community who didn't speak English and helped them find services they might need.

Mum was everything to me, and when I lost her, I felt so alone. Even when she was so ill, she always had a smile on her face. I feel like I lost my smile when my mum died, and I struggle with finding my purpose now.

After my parents died, I found it difficult to manage my diabetes and I neglected myself. Bereavement made me angry, moody, and unwell. It wasn't until I got my job as a community health champion at a housing association I thought, 'I need to set an example.'

I started making healthy changes. I stopped bringing fizzy drinks and crisps

into my home and I found that losing weight changed my whole mood.

In certain areas of Walsall, type 2 is on the rise, and people can't always access services that could help them. To address this, the housing association wanted to recruit people with diabetes knowledge who live in the local area. My diabetes nurse recommended I apply.

It's great that people in my community can reach out to me and find comfort. I can ask them how they are, help them with meal plans and talk about how they're managing. I understand what people are going through, and feel proud that I can help them. Crucially, I don't shy away from my diabetes any more.

In my job, I've shared my experiences with many people. It can be tricky at times, but if it can change someone's life and has an impact then I don't mind. I've had someone come up to me and tell me their mum didn't take her medication properly, but after talking to me, she changed, and I helped someone get their HbA1c down, which I feel proud of. I think people really listen when it comes from someone with first-hand experience.

I didn't know anyone who's Bengali and living with diabetes, so I want to help people feel less afraid. In Asian culture, there can be a stigma around diabetes, and people can make comments. People will say I'm an 'ill girl' when that's not how I feel.

You have to be accommodating to each person and their culture. People can feel judged, so building rapport is really important to break down barriers. Different cultures eat different foods, and a lot of the advice around diabetes and diet is centered around food that not everyone eats. Eating healthy food can also be expensive, so that needs to be considered.

People think of diabetes as scary, but I think if you can manage it well, then it's not scary at all. But I do think you need a good support network.



## “Volunteering has given me focus after my complications”

**Sarah Parsons, 45, from Plymouth, lives with type 2 diabetes and multiple health complications. Sarah says:**

I feel like my ‘mission’ is research. I search online a few times a week for new projects to participate in. My feeling is that my body’s shot, I’m relatively young, and people might as well learn from me while I have time.

I was diagnosed with type 2 diabetes at 21, following a difficult childhood, an eating disorder and polycystic ovary

syndrome (PCOS).

In 2013, I was referred to have bariatric (weight loss) surgery. Afterwards, I went into remission from type 2 diabetes and had two years of peace.

But then, I experienced several gastrointestinal complications. That made managing my diabetes very difficult.

I had frequent attacks of pancreatitis. My symptoms got so severe I became unable to sit at my desk. In 2020, I had to give up work. I absolutely loved my job on the parking team for the local council, helping people like me who have

limited mobility achieve independence.

After I took voluntary redundancy, things spiralled. I suffered an acute brain injury from impaired blood flow to the brain. It affects my memory and cognitive function. I also have peripheral neuropathy and nerve damage that causes my legs to give way. I’m on crutches and have a wheelchair for bad days.

During the pandemic, I was hospitalised with pancreatitis. I became concerned it was linked to my diabetes management.

Virtual appointments didn’t alleviate my distress.

I turned to the Diabetes UK website and found the support forum and Learning Zone, with everything I needed to know. I feel my diabetes is the catalyst to a lot of my physical health problems and managing it is key to improving my aches, pains and falls.

I joined the charity, and in one of the membership emails, I learned about the Communities in Action group, a network of people affected by or at risk of diabetes who share their insights, knowledge, and experiences to drive the charity’s work.

The group was so friendly and so kind, and it didn’t matter what type of diabetes you had or what your circumstances were – everyone was equal. There was never the feeling that you weren’t doing enough. Instead, there were suggestions and kindness.

I then started taking part in focus groups, and I was invited to speak at the Diabetes UK Professional Conference about my journey with bariatric surgery. That was an incredible thing to be part of.

Since then, I’ve spoken on the Diabetes UK podcast and am increasingly involved in research. Volunteering has given me a focus after my complications and the depression that comes with them. It’s helped me dust myself off and start again.

**“I’ve spoken on the Diabetes UK podcast and am increasingly involved in research”**



Getting involved with Diabetes UK and research has given Sarah more focus





## “I don't let diabetes rule me, I rule the diabetes”

**Sue Seve, 69, from Bristol, has lived with type 1 diabetes for 59 years. Sue says:**

I feel like I'm one of the lucky ones. My mother became a member of Diabetes UK when I was diagnosed aged 11, and that's helped over the years. Together, we got through it. I don't know how, but we coped.

Back then, I had one injection a day. The needle was kept in surgical spirit, and it was massive – like a knitting needle compared to what we have today. There was no tech, just urine

tests. I couldn't have school dinners because we didn't know what was in them, and treacle pudding was a feature. Mum measured everything, using an ice cream scoop to serve my potion of mashed potatoes.

When I was first diagnosed, the consultant told me and my mum that I would never have children and I'd never live beyond 30 years of age. I'm 70 soon, so I think he was wrong. But when I was 30, I threw a big party.

When I got pregnant at 21, my doctor told me – wrongly – that people with diabetes couldn't have children and advised me to have an abortion. I went to another doctor and went on to have two healthy children. They are now in their forties and I have grandchildren too.

## “I've taken part in several trials, from testing insulins to studies looking at genetics”

I've taken part in several trials over the years, from testing new insulins to studies looking at the genetics of type 1 diabetes. I like feeling like I'm making a difference.

I took part in the Novopen trial in 1986, the year it launched. I was also one of the first people to use the FreeStyle Libre to monitor my sugar levels. It's brilliant and so much easier to use than blood test meters.

Raising money is very important for the future of diabetes. I'd love to see a vaccine developed to prevent type 1.

I've raised nearly £6,000 through my fundraising and plan to leave a gift in my Will, which is very important to me and my husband.

Over the years, I've done a lot of fundraising for Diabetes UK too, taking part in the Swim22 Challenge three times, riding in a hot air balloon and doing a skydive. I've even learnt to fly an airplane – not a big Boeing 747 and no passengers, I might add. The next thing I want to do is wing walking. I don't like heights, so I don't know why I do all this!

I don't let the diabetes rule me, I rule the diabetes. It's part and parcel of life. There's not likely to be a cure in my lifetime, but if I was cured tomorrow, I might find that difficult. Over the years, I've adapted to live with diabetes.

When I was 11, I started a bucket list. Today, I've had children, I've lived well beyond the age of 30 and so I keep adding to it. I was determined to defy what I was told by that consultant, and I get a sense of fulfillment from ticking things off.

**Most women with diabetes have a healthy baby but it's important to plan ahead and get support from your healthcare team. Visit: [diabetes.org.uk/bal-pregnancy](https://diabetes.org.uk/bal-pregnancy)** ▶▶

## “I’m passionate about making a difference at community level”

**Dr Tarnjit Sehmbi, 29, from Bedford, carries out research in reducing health inequalities in minority ethnic populations living with type 2 diabetes. Tarnjit says:**

After my undergraduate degree in psychology, I didn’t know what I wanted to do. But I really enjoyed the research side and being out there talking to people.

I’m Sikh, and we are quite an under-represented minority within the South Asian community. I have family members living with diabetes, and I’m heavily involved with the Gurdwara in Leeds, so I could see that having the condition was kind of normalised.

That’s why my Master’s dissertation looked at the knowledge and awareness of type 2 diabetes in the Sikh population. People from South Asian backgrounds are more at risk of type 2 diabetes at a younger age. I’m really passionate about making a difference at a community level.

I think having a bit more insight because of my background, my education, the fact I can speak Punjabi and people in the community know my face, meant that they engaged with me. I wanted my research to help improve our prospects and our health.

There are a lot of cultural and traditional generational norms that are passed down, and younger people are sometimes stuck in a cycle where they’re trying to value these, but they know some of these aren’t ideal from a health perspective. It’s a lot of pressure trying to be part of a community and making sure that you’re being respectful and not being rude.

One solution my research found was that the younger generation can educate their elders, so it’s important



to take small steps because we always have to be respectful of a culture.

After my PhD, I started working on the prevention of diabetic retinopathy in minority ethnic populations at Anglia Ruskin University. We’re currently doing some research with the Chinese community and also the Traveller communities. I’m passionate about breaking down research and going back to the communities I’ve worked with to let them know the findings. It’s important to give them a voice.

Our research needs to inform workable interventions. We want to reduce the impact of blindness or eye disease and to prevent eye disease, so we’re trying to increase the uptake of diabetic eye screening because not a lot of people know that diabetes can impact your eyes. We found that people weren’t attending their eye screening appointments because they thought they’d have to buy new glasses, but that’s not the case. And we’re trying to

make people aware that retinopathy can be picked up early and prevented by diabetes management.

The role feels like it was made for me. We’re trying to connect with all the communities that are not very widely represented in research and we haven’t heard a lot from. I think language barriers often prevent people getting involved in research and accessing

health services. So it’s really important that information is accessible in different languages and that people know that translators are an option at their appointments.

It’s also important that more research is done with people from minority ethnic backgrounds, and building trust is vital. So I’m not just a researcher, I’m also someone who really cares about the community.

■ For more info about diabetes and eye health, visit : [diabetes.org.uk/bal-eyes](https://diabetes.org.uk/bal-eyes)

**“I’m not just a researcher, I’m someone who really cares about the community”**



WIN

Win a relaxing  
getaway in  
stunning  
surroundings

# LAKE SIDE LUXURY

➔ Classic Lodges, a nationwide collection of exclusive hotels that all have their own exceptional and charming character, is offering readers the chance to win a luxury one-night stay for two in the picturesque Lake District.

Each of the hotels provides a friendly, relaxing atmosphere while maintaining Classic Lodges' signature style, comfort and luxury, including the stunning Lakeside Hotel & Spa. Situated on the southern shore of Lake Windermere, the hotel is ideally placed for outdoor swimming.

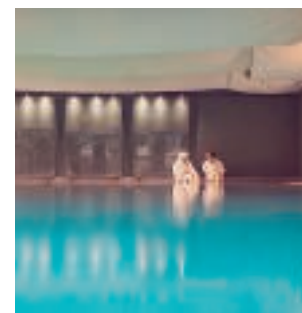
Good food is at the heart of each and every hotel – all of the chefs place a great emphasis on creativity and flair, as well as a core focus on seasonal, locally sourced produce to deliver a personalised dining experience.

The winner of this fantastic prize will enjoy a one-night stay at Lakeside Hotel & Spa, including a three-course dinner and a delicious full English breakfast.

■ **To book a stay with Classic Lodges, please visit [classiclodges.co.uk/specialoffers](https://classiclodges.co.uk/specialoffers)**

**Terms and conditions:** The dinner, bed and breakfast prize is based on two people sharing a double room for one night at Lakeside Hotel & Spa, and includes a three-course dinner and breakfast the following morning. Opening date is 6 March 2024. Closing date is 13 May 2024.

The prize must be booked via the Central Reservations line – 01257 238730, and is valid for six months following the competition closing and is subject to availability on selected dates, is not transferable and cannot be exchanged for a cash value.



PRIZE

## LUXURY HOTEL STAY

### INCLUDES:

- A luxury one-night stay for two at Lakeside Hotel & Spa
- Three-course dinner and a full English or continental breakfast

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



CLASSIC  LODGES  
The Art of a Perfect Stay

# bluezone MAKE IT PERSONAL

Bluezone is reinventing life insurance for people with type 2 diabetes



➔ No two people with diabetes are the same, but most people with the condition have had or will have difficulties when trying to arrange insurance coverage. Sometimes, people don't even want to apply because they think the process is going to be arduous.

This is why Bluezone has specialised in cover for people living with chronic health conditions. Bluezone has launched its first policy for people with type 2 diabetes personalised to the individual. Bluezone allows you to tailor the policy to suit your personal circumstances.

Bringing together a team of doctors, AI and insurance experts, Bluezone understands that diabetes can be well managed and offers as part of its product access to a lifestyle app that delivers personalised guidance to live a longer, happier, healthier life.

## Easy online application

Getting traditional life insurance can take several months and involve intrusive health tests and lengthy calls

## WHY BLUEZONE?

- Specialist life insurance for people living with type 2 diabetes.
- Get the life cover you deserve, personalised around your health.
- No medical tests or GP reports required to provide an accurate quote – you'll be asked about the medical conditions you've been diagnosed with and the medications you're currently taking.
- Get a personalised quote within minutes and be covered as soon as you submit your direct debit details.
- Free one-year access to the award-winning Gro Health App, which offers support and advice to help manage your type 2 diabetes and live a healthy lifestyle.

**"Bluezone has designed a product which means you can go through the online application process in minutes"**

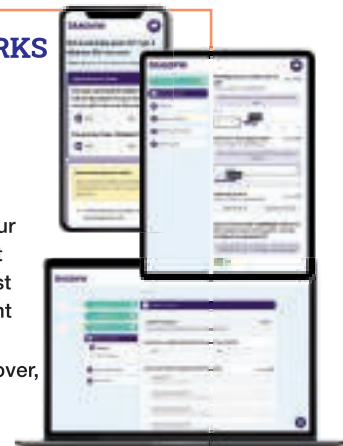
with brokers with long lists of questions. With Bluezone, there is a simple online application journey with minimal questions and no health tests.

Bluezone has no requirement for blood tests which means that you can go through the online application process in five minutes, receive your final underwritten quote, and activate your cover in as little as 10 minutes.

- **It's free to get a quote, and there's no obligation to purchase. Use the simple application at: [bluezoneinsurance.co.uk](https://bluezoneinsurance.co.uk)**

## HOW IT WORKS

- Complete the simple online application to receive your final quote in minutes.
- Personalise your policy to best suit your needs. Adjust your cover amount and term.
- To start your cover, just enter your payment details.





# Difficulty getting Type 2 Diabetes Life Insurance? We can help



## Get a free personalised quote in minutes\*

At Bluezone, we specialise in Type 2 Diabetes term life insurance. We've made it easy to apply for cover with our simple online application. All you need is 5 minutes to tell us about yourself.

### How it works:

- 1 Complete the application on any device 24/7 to get a final quote in minutes.
- 2 Personalise your cover amount and policy term to best suit your needs.
- 3 To start your cover, just enter your payment details.

With dedicated support on hand.



Scan the  
QR code to  
get started

**bluezone**  
bluezoneinsurance.co.uk





# TEND TO YOUR HEALTH

Now that spring has sprung, it's the perfect time to plant the seeds for improved physical and mental wellbeing

➔ “Gardening adds years to your life and life to your years.” This old saying gained new credence in 2013 when a study found that gardeners aged over 60 live up to 30% longer and are 27% less likely to suffer heart attacks or strokes than non-gardeners.

The rewards of gardening aren't only physical. The emotional benefits of being closer to nature – the pleasure taken from the trilling of birds or glimpsing the first green shoots of spring – are well-established. Seven million Brits say their mental health has benefitted since taking up gardening for the first time since.

“Regularly tending to a garden and being out in nature are really effective ways for people who have diabetes to tend to their own physical and mental health,” says our Senior Physical Activity Advisor, Neil Gibson.

“It's an activity that can help burn calories and build muscle strength, flexibility and balance, while being outside in the sunshine helps ease stress and boost mood and vitamin D levels. If you're growing fruit or veg, it could even give you your five a day. What's not to like?”

Gardens are so beneficial because they

**“The pleasure taken from the trilling of birds or buzzing of bees or glimpsing the first green shoots of spring are well-established”**

appeal to all the senses. Vivid colours, varied scents or the sounds of swaying stalks add atmosphere and create calm, as does running fingertips through grasses or tasting herbs plucked straight from a bed. The benefits for people living with the added stress of a chronic health condition like diabetes are clear.





But, we know that taking part in new physical activities can be daunting for people who have diabetes. Fear of hypos or unexpected fluctuations in blood sugar levels, as well as concerns over mobility issues, footcare or lack of experience, can often be a barrier to trying new things.

But the benefits far outweigh the risks, says Neil. “Make sure you don’t go hell for leather straight away and try and plant a whole bed or dig a pond or something like that – it’s far better to warm up with some stretches, start off small and gradually build up your activity levels and ambition,” he explains.

### NO GARDEN? NO PROBLEM!

Don’t let lack of access to land thwart your green ambitions. There are a host of options for people who are short on space.

#### Allotments

Most local authorities across the UK allow residents to rent allotments of land for cultivation for a small annual fee. Not only do allotments provide an

outlet for green fingers, they also have a friendly community spirit.

Contact your council to get on the waiting list.

#### Find a gardening community group

Many authorities provide funding for local groups to maintain flower beds and manage planting in parks and other attractions. These groups can be a great way to meet new people and

learn the basics of gardening. Search online to find one near you.

#### Window boxes and house plants

Using windowsills and other sunny spots inside to grow plants is a great way to add colour to your home. Maintaining house plants helps dexterity and manual motor skills, raises the spirits and improves air quality.



## 10 TIPS FOR BUDDING GARDENERS

There's no such thing as mistakes in gardening. Everything is an experiment. Still, before you pick up the spade for the first time, it pays to be prepared...



### 1 Get the measure of your outdoor space

Is your garden shady or in the glare of the sun? Does it face south or north? Is it sheltered or exposed to the wind? What soil type is it? The answers to these questions will determine which plants are best suited to your garden.

**2 Start small**  
It's easy to get carried away when you start a new project and bite off more than you can chew. It's best to start with a small area and work methodically around your space. Consider covering uncultivated areas to avoid weeds setting in.

**3 Plan your space**  
Setting out a rough plan of what you want to grow and where is a great place to start. This allows you to consider aspects like colour schemes,

structure and shading. Use graph paper to plan to scale.

**4 Feed and water regularly**  
Many plants will flourish with extra nutrition during spring and summer, and most need regular watering. It's more effective to water the roots (not the leaves). Avoid watering in the middle of the day or in full sun. Seek advice from local gardening groups or garden centres if you need help.

**5 Plant properly**  
Thoroughly weed spaces before planting and use mulch or fertiliser where needed. It's important to plant at the right depth – too deep and a plant will never thrive, but too shallow, it risks drying out.

Seek advice online or from fellow gardeners if needed.

**6 Watch out for pests**  
Aphids, slugs, snails and greenflies are the bane of gardeners everywhere, and it pays to keep an eye out for them. But before you reach for the pesticide, consider using tried-and-tested prevention methods to keep your crops safe. Nets can keep soft fruits out of reach of some pests, and crushed egg shells can help keep slugs at bay.

**7 Compost your food and garden waste**  
Composted kitchen and garden waste will superpower your plants. It's also great for the environment and your wallet. Allow your waste to break down for a year in a dry environment and dig into your soil as mulch.

**8 Don't fear the pruning shears**  
Pruning properly will help bring the best out of your plants, whether you're growing them for their flowers or fruit. Knowing when and how to prune is key. Ask for help or seek advice online if needed!

**9 Nurture wildlife**  
One of the joys of gardening is seeing nature flourish due to your efforts. Insect-friendly species not only attract bees and other creepy crawlies – they will also lure birds and other animals that prey on them.

Water features will attract frogs, toads and, if you're lucky, newts. Allowing wood to rot on the ground or using bug hotels will boost the local bug life.

**10 Sit back and enjoy!**  
This one is crucial. Make sure you make the time to take pleasure in the fruits of your labours. A well-placed bench will provide the perfect spot to take in all the sensory delights that gardens can offer.

"If you're taking insulin or medications that can lower blood glucose levels, aerobic activity can cause your levels to fall, while intense anaerobic exercise like digging can cause it to rise. Monitor your blood sugar and make sure you have something to hand to treat hypos, as well as insulin if you take it."

Gardening can be a year-round activity, so take a look at our online hot and cold weather advice, which includes advice on managing diabetes and how to store equipment and insulin. Precautions such as sun protection, suitable clothing and decent footwear also go without saying. If you have nerve damage, it is important

### "Local gardening and allotment groups can be a great source of advice and support for people new to gardening"

to check your feet for injuries after each session in the garden.

Gardening needn't be off-limits for people who have mobility issues, either. Raised beds give people who have difficulty getting down to ground level an opportunity to get dirt under their nails, and local gardening and allotment

groups can be a great source of support and guidance for people new to gardening. Staff at garden centres can also provide advice and inspiration for gardeners of all experience levels.

"Newcomers can join groups that look after local public spaces before getting stuck in on their own gardens," adds Neil. "It can be a great way to socialise, meet new people, build confidence and learn new skills."

■ **For more advice and information on getting more physically active and managing diabetes, visit: [diabetes.org.uk/bal-exercise](http://diabetes.org.uk/bal-exercise)**





▲ **HOLD WATER** Bee Print Indoor Watering Can, £19.99

Keep your plants hydrated with this pretty zinc watering can with ergonomic handle.



▲ **BUG HOTEL** Make Your Own Insect House Kit, £12.99 Easy-to-build wooden home for insects, such as bees, ladybirds and beetles.

▼ **BEAR NECESSITIES** Children's Winnie The Pooh Gardening Set, £19.99 This luxury gardening tool bag and gift set includes a hand rake, hand fork, trowel and transplanter.



▲ **CHARM THE BIRDS** Blue Ceramic Bird Bath, £22.99

Two little birds decorate this deep blue ceramic bird bath, making a lovely garden feature to attract feathered friends.

# THE JOYS OF SPRING

The gardening range at our online shop has everything you need to keep your plants and outdoor space fresh and cared for. Visit [diabetes.org.uk/bal-shop](http://diabetes.org.uk/bal-shop)



▲ **DOWN THE RABBIT HOLE** Peter Rabbit Plant Pot Ornament, £11.99 This cute hanging ornament is hand-painted using lead-free products. It can stay outside all year, and the paintwork won't fade or flake.



▲ **TUPPENCE A BAG** Parasol Bird Feeder, £19.99 This hand-finished hanging metal bird feeder will weather over time.



▲ **FROM TINY SEEDS** Cream Iona Buchanan Meadow Fabric Pot, £14.99 Made from 100% recycled plastic bottles, these fabric plant pots have been designed in collaboration with acclaimed wildlife artist Iona Buchanan.

# Spicy banh mi bowl with carrot noodles

Serves 2 | Prep: 5-10 mins |  
Cook: 10 mins

GLUTEN-FREE | DAIRY-FREE

- 2 large carrots, peeled
- 2tsp white wine vinegar
- 1tsp sesame seeds, toasted
- 2tsp sunflower oil
- 125g 5% fat minced pork
- 1tbsp Thai green curry paste
- 2 spring onions, finely chopped
- 3 baby cucumbers (approx 70g), trimmed and cut into chunky pieces
- ½ small red chilli, thinly sliced (optional)
- 75g beansprouts (optional)
- Small handful fresh coriander (optional)
- Wedges of lime to serve

1 Use a vegetable peeler to peel thin strips from the length of the carrots and place into a bowl with the vinegar and sesame seeds. Toss lightly and set aside.

2 Heat the sunflower oil in a small wok or frying pan, add the minced pork and stir fry for 4-5 mins until crispy. Stir in the curry paste and 2tbsp water and stir fry for 2-3 mins. Add the spring onions and pile into a bowl. Place the carrot noodles at the side. Add a pile of the cucumbers sprinkled with the red chilli. Scatter with fresh coriander and serve with a wedge of lime.

PER SERVING 202g

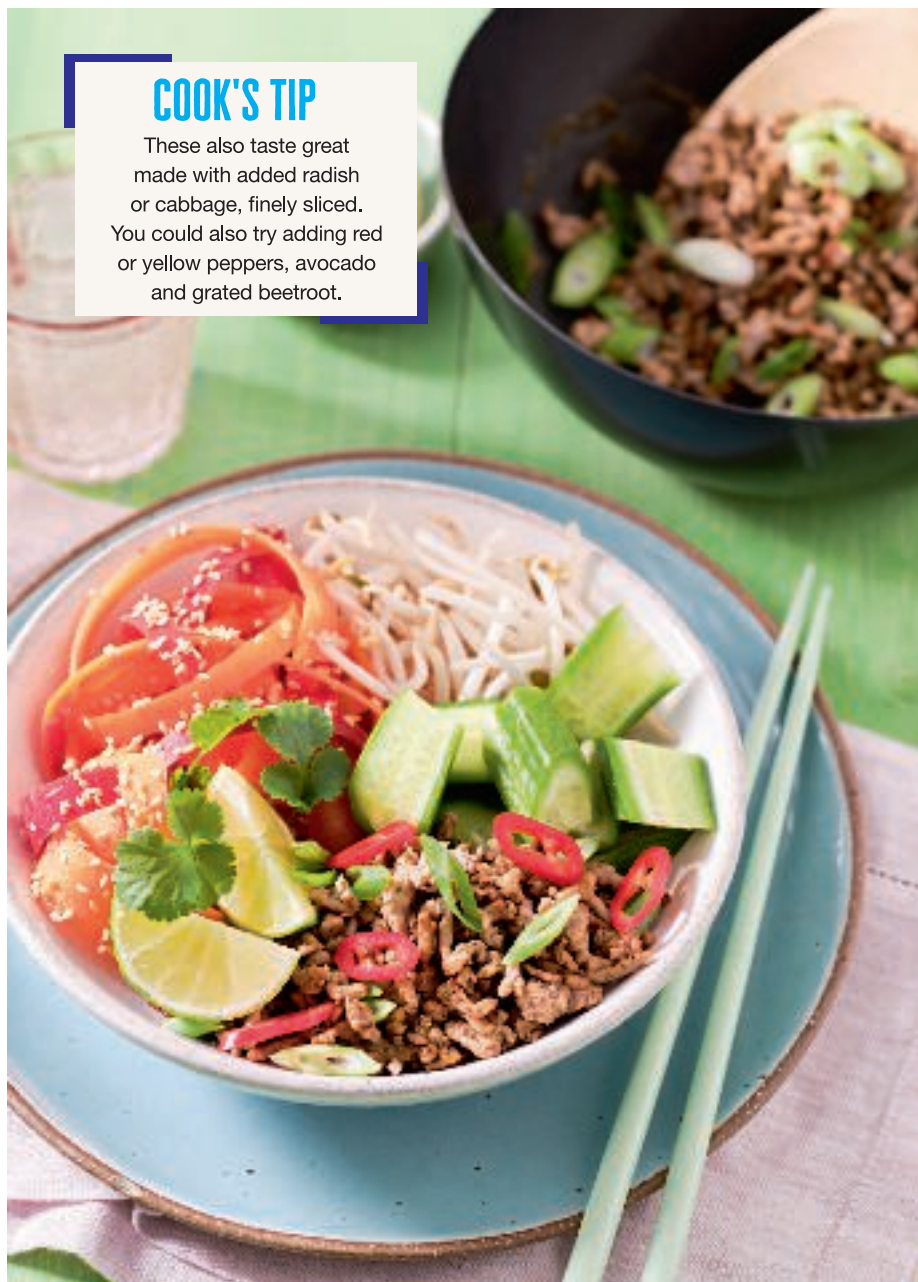
CARBS	CALS
6.6g	171

Sugars	Fat	Sat Fat	Salt	Protein	Fibre
4.8g	8.7g	1.7g	0.45g	14.9g	3.4g

2 portions of fruit and veg

# Versatile veg

The beauty of cooking with vegetables is that they can often be substituted for whatever veg you have to hand. For each of these recipes, we have ideas for swaps to suit your personal taste and help reduce food waste



## COOK'S TIP

These also taste great made with added radish or cabbage, finely sliced. You could also try adding red or yellow peppers, avocado and grated beetroot.



### COOK'S TIP

Try using tenderstem broccoli, thinly sliced fennel, asparagus, and baby beetroot cut into thin wedges instead of aubergine and courgette.

## Spring roasted vegetables with lentils and whipped feta

Serves 2 | Prep: 10 mins |  
Cook: 40-50 mins

GLUTEN-FREE | VEGETARIAN

- 1 medium red onion, cut into thin wedges
- 2 garlic cloves, crushed
- 1 large red pepper, deseeded, cored and cut into chunks
- 1 small aubergine (approx 250g), trimmed and cut into chunks
- 1 courgette (approx 200g), trimmed and cut into chunks
- 150g cherry tomatoes
- 2tbsp olive oil
- 1tbsp balsamic vinegar
- 400g can green lentils (265g drained weight)
- 50g vegetarian feta cheese, crumbled
- 1tsp lemon juice
- 3tbsp 0% fat Greek style yogurt
- Small handful fresh basil leaves

tomatoes and olive oil, and spread in a single layer onto a large baking sheet – this will make sure they roast rather than steam. Roast for 30–40 mins until softened and beginning to char. Stir in the vinegar and lentils and return to the oven for 10 mins.

**2** Meanwhile, place the feta cheese, lemon juice, yogurt and 1tbsp of water into a food processor and puree until smooth. Season with black pepper.

**3** Roughly chop half the basil leaves and stir into the roasted vegetable and lentil mixture. Season to taste with freshly ground black pepper and a squeeze of fresh lemon juice if liked.

**4** Pile onto serving plates, top with a spoonful of whipped feta and scatter with the remaining basil leaves.

**1** Preheat the oven to 200°C/fan 180°C/gas 6. Toss together the red onion, garlic, red pepper, aubergine, courgette,

PER SERVING 666g

CARBS  
28.3g

CALS  
383

Sugar	Fat	Sat Fat	Salt	Protein	Fibre
12.7g	18.4g	5.5g	0.71g	19.1g	13.5g

5 portions of fruit and veg





## Vegetable lasagne

Serves 6 | Prep: 20 mins |  
Cook: 1 hr 10 mins

VEGETARIAN

- 2 courgettes (approx 400g)
- 2tsp rapeseed oil
- 1 large onion, chopped
- 250g chestnut mushrooms, sliced
- 3 mixed peppers (approx 450g), deseeded, cored and chopped
- 3 cloves garlic, crushed
- 2 tsp dried mixed herbs
- 350g pack Quorn mince
- 2 x 400g cans chopped tomatoes

- 2tbsp tomato purée
- 200g baby spinach leaves
- 50g vegetable spread
- 50g plain flour
- 650ml semi-skimmed milk
- 12 wholewheat sheets dried lasagne
- 75g grated Cheddar

**1** Preheat the oven to 200°C/fan 180°C/gas 6. Use a vegetable peeler to peel 6 strips from one courgette and set aside until later. Thinly slice the remainder. Heat the oil in a large saucepan and fry the onions, mushrooms, peppers and courgettes over a medium heat for 7–8 mins, stirring frequently until softened. Add the garlic, mixed herbs and Quorn and fry for a few mins. Stir in the

chopped tomatoes, tomato purée and 150ml water. Bring to the boil, cover and simmer for 15 mins. Stir in the spinach and cook until just wilted.

**2** Meanwhile, melt the vegetable spread in a separate saucepan, add the flour and cook, stirring for 1–2 mins. Slowly add the milk, whisking until thick and smooth and simmer for 2 mins. Season well with freshly ground black pepper.

**3** Spoon one-third of the tomato sauce into the base of a large deep lasagne dish (about 12 x 9 x 2in), cover with 3 sheets of lasagne and drizzle with a couple of spoonfuls of white sauce. Repeat the layer using half the tomato sauce. Finish by spooning over the remaining tomato sauce and spread out



## COOK'S TIPS

Use cherry tomatoes or frozen peas instead of the mushrooms. Add diced aubergine, thinly sliced carrots, thinly sliced parsnips, ribbons of leek or trimmed asparagus spears instead of the peppers and shredded kale, and rocket or watercress instead of the baby spinach leaves.

Make one, freeze one: Split the mixture into two and make two lasagnes – one to eat now and one to freeze for another day. Make up the same using two smaller lasagne dishes, each 6 x 5 x 2in. Cook as below. Allow the lasagne to cool completely and overwrap in clingfilm. Label and freeze for up to four months. To reheat, defrost thoroughly then cover with foil and cook in a preheated oven 180°C/fan 160°C/gas 4 for 25–30 mins.

You can reheat individual portions in a 600W microwave for about 5–7 mins.

# Spring vegetable soup

Serves 4 | Prep: 10 mins |  
Cook: 25 mins

GLUTEN-FREE | VEGAN

- 2 tsp olive oil
- 2 leeks (approx 300g)
- 1 large courgette (approx 250g)
- 2 garlic cloves, crushed
- 125g fine green beans, trimmed and cut in 1-in" pieces
- 4 large ripe tomatoes, deseeded, skinned and diced (approx 600g)
- 1.2 litres hot vegetable stock
- 400g tin haricot, flageolet or cannellini beans and rinsed (drained weight approx 265g)
- 75g spring greens, (woody core removed) and leaf finely shredded
- 1tbsp lemon zest (optional)

- Handful fresh chives, finely chopped

1 Heat the olive oil in a large saucepan and fry the leeks for 4–5 mins until just beginning to soften. Stir in the courgette and garlic and cook for a further 2–3 mins. Add the green beans, tomatoes and stock. Bring to the boil, cover and simmer for 10 mins.

2 Stir in tinned beans and shredded greens and simmer for 4–5 mins. Season to taste and serve in bowls sprinkled with the lemon zest and chopped chives.

PER SERVING 711g

CARBS  
20g

CALS  
154

Sugars	Fat	Sat Fat	Salt	Protein	Fibre
9.1g	3.3g	0.6g	0.09g	5.1g	12.3g

4 portions of fruit and veg

to cover the lasagne sheets. Drizzle over the remaining white sauce to cover completely. Arrange the courgette strips over the top and scatter over the grated cheese. Bake for 45 mins until bubbling and golden brown. Serve with a leafy green salad.

PER SERVING 656g

CARBS  
66.5g

CALS  
527

Sugars	Fat	Sat Fat	Salt	Protein	Fibre
17.8g	12.4g	4.8g	0.57g	30g	14.9g

3 portions of fruit and veg

## COOK'S TIPS

Wilt your own favourite spring leaves, like watercress and baby spinach, into the soup at the end of cooking. Finely diced summer squash can be used instead of courgettes, and asparagus tips can be used instead of the green beans. If you like a thicker soup, remove a ladleful and blend the rest until smooth. Stir back in the remaining soup.







## COOK'S TIP

Got leftovers? Thin with a little water and blitz to make a hearty Indian-inspired warming soup. Serve drizzled with yogurt and scattered with fresh torn coriander. You can use mung dal yellow lentils for this recipe as above, or if you like a little more texture, use yellow split peas. Soak overnight in cold water. Drain and rinse under cold running water until the water runs clear. Add to the pan and boil rapidly for 10 mins before simmering for 45–50 mins until the peas are tender – top up with extra water during cooking.

# Mushroom dhal with coriander chutney

Serves 4 | Prep: 10-15 mins |  
Cook: 50 mins

GLUTEN-FREE | VEGAN

- 2tbsp sunflower oil
- 1 large onion, finely chopped
- 2 garlic cloves, crushed
- 1-in" piece fresh root ginger, peeled and finely grated
- 1tsp turmeric
- 2tsp heaped mild chilli powder
- 2tsp ground cumin
- 1tsp heaped ground coriander
- 2tbsp lemon juice
- 227g can chopped tomatoes
- 140g red split lentils
- 200g baby spinach leaves
- 25g pack fresh coriander

- 1 green chilli, deseeded and chopped
- 2 spring onions, trimmed and roughly chopped
- 6tbsp unsweetened soya yogurt
- 250g chestnut mushrooms, halved
- 1tsp garam masala

1 Heat half the oil in a large saucepan and fry the onion, garlic and ginger for 4-5 mins, stirring until softened and beginning to brown. Stir in the turmeric, chilli powder, cumin and ground coriander and fry for 2 mins, stirring to cook off the spices and release the flavour.

2 Add half the lemon juice, tomatoes, red lentils and 650ml water. Bring to the boil, cover and simmer for 30-35 mins until the lentils are still whole but tender. Season to taste with freshly ground black pepper. Remove from the heat and scatter over the spinach leaves. Cover with a lid and set aside.

3 In a food processor or with a stick

blender, whizz the fresh coriander, chill, spring onions, remaining lemon juice and 2tbsp yogurt to a smooth puree. Stir half the mixture into the dhal.

4 Heat the remaining oil in a small wok or frying pan and stir-fry the mushrooms for 4-5 mins until their moisture has cooked off. Sprinkle over the garam masala and toss well until coated. Stir the spinach into the dhal and divide between shallow bowls. Scatter over the mushroom mixture, then the remaining yogurt, and drizzle over the rest of the coriander chutney.

PER SERVING 438g

CARBS  
28.4g

CALS  
258

Sugars	Fat	Sat Fat	Salt	Protein	Fibre
8g	7.9g	1g	0.28g	14.7g	7.1g

2.5 portions of fruit and veg



# Chopped salad

Serves 4 | Prep: 15 mins

GLUTEN-FREE | VEGETARIAN

- 2 little gem lettuces, trimmed and shredded
- 10 cherry tomatoes, halved
- Approx 100g cucumber, chopped
- 1 large carrot, peeled and shredded
- 400g can chickpeas in water (drained weight approx 240g)
- 325g can sweetcorn (drained weight approx 260g)

- 150g red cabbage, thinly shredded
- 50g pecan nuts, roughly chopped
- 60g feta cheese, finely crumbled
- ½ lemon, finely grated rind and juice
- 2tbsp extra virgin olive oil
- 1tsp wholegrain mustard

1 In a large bowl, mix together the lettuce, tomatoes, cucumber, carrot, chickpeas, sweetcorn and red cabbage. Scatter over the nuts and cheese, then season with freshly ground black pepper.

2 In a small bowl, mix together the lemon rind and juice, olive oil and mustard and drizzle over the salad just before serving.

3 This salad can be served on a platter if liked – arrange each separate ingredient in rows across the platter – it’s a rainbow salad!

PER SERVING 313g

<b>CARBS</b> 31.4g	<b>CALS</b> 322
-----------------------	--------------------

<b>Sugars</b> 11.4g	<b>Fat</b> 14.9g	<b>Sat Fat</b> 3.1g	<b>Salt</b> 0.95g	<b>Protein</b> 11.5g	<b>Fibre</b> 8.2g
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2 portions of fruit and veg



## COOK'S TIP

This salad really is a 'use whatever ingredient you have available' dish – piles of watercress, radishes, raw cauliflower, thinly sliced cooked beetroot, halved strawberries or slices of seedless watermelon.

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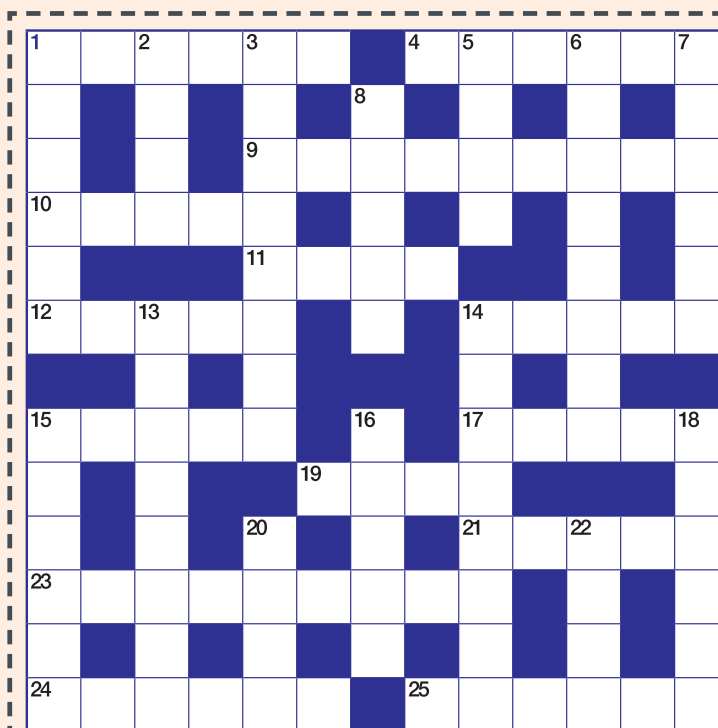
**TO ENTER:**

Send the grid to the Balance address – Diabetes UK, 126 Back Church Lane, London E1 1FH.

See T&Cs, below.

**ACROSS**

- 1** Aromatic evergreen shrub (6)
- 4** Ordained minister (6)
- 9** Having inflamed joints (9)
- 10** Relating to the olfactory organ (5)
- 11** Flowering perennial also known as Avens (4)
- 12** Animal of the Chinese zodiac (5)
- 14** Sepals collectively (5)
- 15** Having a zesty flavour (5)
- 17** Month whose birthstone is diamond (5)
- 19** Musical work (4)
- 21** Femme fatale (5)
- 23** \_\_\_ Abbey, monastery in the Manche department of France (2,7)
- 24** Historic Anglo-Saxon kingdom of South West England \_\_\_ (6)
- 25** Catherine of \_\_\_, first wife of Henry VIII (6)



Name \_\_\_\_\_

Address \_\_\_\_\_

Postcode \_\_\_\_\_

**DOWN**

- 1** Bird of the finch family (6)
- 2** Javanese tree, its sap used for arrow poison (4)
- 3** China tea flavoured with bergamot (4,4)
- 5** \_\_\_ bean, legume also known as butter bean (4)
- 6** One selling to the public (8)
- 7** Bone at base of spine (6)
- 8** Planet also called the evening star (5)
- 13** Completely full, packed to the \_\_\_ (8)
- 14** Sauce whose French name means 'hunter' (8)
- 15** Candle-making fat (6)
- 16** Reproductive unit of a fern (5)
- 18** Host city of the 2012 Summer Olympics (6)
- 20** Unit of land measurement (4)
- 22** Ladder step (4)

**SOLUTION for last issue's crossword:**

**ACROSS:** 1 Cardiac, 5 Beech, 8 Axiom, 9 Creel, 10 Birch, 14 Terrine, 16 Turin, 17 Knock, 18 Derrick, 22 Loris, 25 Usage, 26 Cairn, 27 Debut, 28 Natural. **DOWN:** 1 Cravat, 2 Rail, 3 Lamb, 4 Charles Darwin, 5 Bach, 6 Epee, 7 Hull, 11 Bruce, 12 Quart, 13 Disc, 15 Erne, 19 Kernel, 20 Curd, 21 Carb, 22 Lent, 23 Scut, 24 Bier.

**T&Cs:** 1. Opens 6 March 2024. 2. Closing date is 13 May 2024. 3. The prize is an Ocado voucher, worth £59. 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](https://diabetes.org.uk/bal-comp-terms) for full T&Cs.

Carbohydrate-containing foods can be divided into categories – one is **starchy carbs**, such as rice and potatoes.



Foods that have sugars added to them, such as sweets, muffins and chocolate. These added sugars are known as **'free sugars'** and are something we all should be cutting down on.



Foods containing natural sugars, such as yogurt, fruit, veg and milk.

# COUNTING SUGARS AND CARBS

Understanding carbohydrates and their effect on your blood sugar levels is really important when you live with diabetes.

Our expert nutritionist, Stephanie Kudzin, explains these important nutrients

## Sources of energy

Protein, fat and carbohydrate are the nutrients we need in larger quantities that provide us with energy. Carbohydrate-containing foods, such as fruit and vegetables, brown rice, wholegrain bread and wholegrains, offer a wide range of vitamins and minerals like magnesium and vitamin B along with fibre. Fats provide us with vitamins A, D, E and K.

Our expert nutritionist, Stephanie Kudzin, says: "When making food choices, you should consider the overall quality of your diet.

"Our recommended recipes are those that our nutritional analysis shows to be healthy because of the ingredients we use or because we have modified

traditional recipes to make them healthier.

"We provide nutritional information so that people can make their own decisions on which recipes fit into their chosen dietary approach, recognising that some people may prefer a lower-carb option.

"When it comes to a recipe's sugar content, it is important to distinguish between the type of sugar: free sugars or sugar that naturally occurs in ingredients such as fruits, vegetables and milk."

## What are sugars and carbohydrates

Carbohydrates are digested by our bodies and broken down into sugar and our main source of energy. They can provide nutrients for a



healthy, balanced diet. For people with diabetes, the amount of carbohydrates they consume has the biggest impact on their glucose levels.

Sugar is a type of carbohydrate that has a simple chemical structure. It can be found naturally in products such as fruits, vegetables, and dairy products. It is also found in honey, syrups like agave nectar and fruit juice.

As sugars are carbohydrates, they are labelled underneath carbohydrates as 'of which sugars' on nutrition labels.

### Sources of sugar

Sugar is found naturally in fruit and veg (fructose) and dairy foods (lactose). We don't need to reduce the amount we consume of these because the structure of the food, along with the fibre, changes the way our bodies handle the sugar.

Sugar is also added to food and drink by manufacturers or ourselves at home, for example, in baking and cooking. These added sugars are called 'free sugars.' The debate about sugar and health is mainly around free sugars.

Fruit juice and smoothies contain free sugars because the chemical structure of fruit and veg is broken down in the juicing process.

It's best to limit yourself to a small glass (150ml) once a day. This counts towards one of your 5-a-day.



### Amber alert?

Stephanie explains why our poached fruit crumble is healthier than it initially appears

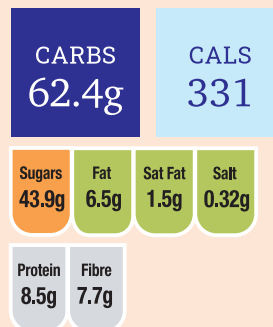
- This recipe has 43.9g of sugar per portion, but the majority of that comes from fruits.
- The sugar content does not distinguish between the sugar in fruits, which we are not concerned about from a health perspective, and the free sugars from the apple juice and optional brown sugar, which we need to limit our intake of.

### Ingredients

- 200ml apple juice
- 1 cinnamon stick
- 1 star anise
- 2 apples, peeled, cored, and cut into chunky wedges
- 3 pears, peeled, cored, and cut into chunky wedges
- 4 plums, destoned

- and quartered
- 4 figs, quartered
- 150g blackberries
- 30g porridge oats
- 60g plain flour
- 20g brown sugar (optional)
- 1 tsp ground cinnamon
- 50g low-fat spread
- 4tbsp 0% fat natural Greek yogurt

Each 450g serving contains:



### Be label-savvy

On food labels, the figures for sugars on traffic lights are for total sugars. This doesn't tell you how much of the sugar comes from natural sources, such as fructose and lactose, and how much is added.

Check the ingredients list – the higher up the list, the

more of that ingredient is contained within the product. If syrup, invert syrup, cane sugar, molasses or anything ending in 'ose' is within the first three ingredients, this suggests the food contains more added sugar. Choose an alternative if possible, or be mindful of the portion you eat.

### Where you'll find 'free sugars':

- Table sugar that we add to hot drinks or breakfast cereal.
- Caster sugar, used in baking.
- Sugars hidden in sauces and ready meals.
- Honey and syrups, such as golden syrup or agave syrup.
- Pure fruit juice, smoothies and sugary soft drinks.
- Sweets chocolate and desserts.



### How to include good quality carbohydrates in your diet:

- Choose wholegrain breads and cereals.
- Have fruit whole rather than as a juice. Eating an apple with the skin on, for example, will provide more fibre and fewer free sugars than drinking a glass of apple juice.
- Try quinoa and bulgur wheat as an alternative to pasta.
- Try seeds, nuts and pulses as lower-release carbohydrate sources.
- Choose unsweetened milk and yogurts.



# THE COST OF COOKING

Our expert nutritionist, Stephanie Kudzin, examines the nutritional and financial benefits of different cooking methods



➔ As the cost of living continues to affect households across the UK, the popularity of energy-saving air fryers has continued to soar. Sales of the kitchen gadget were up 1,175% in 2023, as households continue their efforts to save on fuel bills.

According to the Energy Saving Trust, cooking typically accounts for 13.8% of electricity demand in UK homes.

The purported health benefits of air fryers are another key selling point. Air fryers work by rapidly circulating hot air, which gives food a crispy outer layer without having to add much, if any, additional fat. This helps reduce your fat intake from foods that you would usually deep fry, like chips or chicken.

Of course, the healthiness of any cooking method will depend on what you're making and the overall balance of your diet. Cooking from scratch using plenty of fruit and veg, watching your portion sizes, choosing whole, minimally processed foods and getting support from a dietitian will all be beneficial to your overall health and diabetes management.

Here, we take a look at different cooking methods to examine their nutritional benefits and how energy efficient they can be.

## Boiling and poaching

- Boiling is a simple, healthy cooking method that requires no added fats. It's suitable for vegetables, grains, and pasta. Be careful not to overcook, as this will waste energy, and nutrients can leach into the water.
- The secret to boiling veg is ensuring they spend as little time as necessary in the boiling water – the right amount of time will produce crisp, bright, tasty veg. Too much will leave them colourless and mushy.
- Cooking veg by immersing them for just a few minutes in boiling water and then refreshing with cold water is known as blanching. You can use the water to make a gravy or sauce afterwards, using water with the nutrients in.



## Slow cooking

- Slow cookers are designed to cook food gradually over a long period of time. They're ideal for preparing healthy stews and casseroles with plenty of veg and pulses and can be a handy way to cook if you have a busy schedule.
- Even if your slow cooker is on all day, it will use about the same amount of energy as a lightbulb. But, to save energy, try to avoid leaving them on longer than necessary, and use the 'low' setting if you're going to be out for longer.



### TIP

If you want to save energy, turn your kitchen appliances off at the wall – even your oven.



## Grilling

- This is great for cooking lean meats and vegetables. Excess fats can drip away during the cooking process, and veggies that are grilled caramelise to become sweet and crisp.
- Whether you're grilling in the oven or outdoors on a barbecue, almost every veg can be cooked this way. For extra flavour, try marinating with a little oil, herbs and spices for at least 30 minutes before cooking, and flip them when grill marks form.

## Pressure cooking

- Poaching – gently simmering ingredients in water – is a healthy cooking method because it doesn't require any oil or butter to cook the food. It's a great, low-fat way of cooking chicken, fish, eggs and fruit.
- If you're boiling or poaching food, save energy by heating water in a kettle rather than on the hob. You can transfer it into a pan once it's already boiled. Only use as much water as you need – boiling extra water takes more time and energy – and always cover your pots and pans. The water will boil faster and use less energy to heat your food.
- Turn off the heat a couple of minutes before your food is fully cooked, particularly on an electric hob, as your food will continue to cook as the hob cools down.

- This method can cook food quickly, using less water, and retaining more nutrients than boiling.
- As the heat that builds up inside a pressure cooker cannot escape during the cooking process, the temperature is maintained with minimal energy input. This means a pressure cooker saves 90% of the energy used to boil a pot on the hob.



## Steaming

- This is a great way to prepare veg because they aren't submerged in water or oil, which can leach away nutrients, colour and flavour. It's perfect for cooking delicate types such as greens or asparagus.
- Steaming is also very energy-efficient. Steamed food cooks faster and at lower temperatures than other methods.

**“The healthiness of any cooking method depends on what you’re making”**



## Baking and roasting

- These methods use dry heat and can be healthy, especially if you avoid adding too much saturated fats.
- Veggies are full of flavour and need very little oil to caramalise, so roasting them with a small amount of olive oil, for example, can enhance flavours without compromising nutrition.
- Chicken and fish can be baked in greaseproof paper or foil parcels with a little water.
- Ovens are generally bigger than other cooking appliances, so they need to use more energy to heat up and can be expensive to run. However, their larger size means you can fit a lot of food in at once, so they’re better for batch cooking or cooking for a large group. Using your oven in these situations could be the best value for money. Try not to open the oven door any more than necessary while it’s on to keep hot air inside and save energy.



## Microwaving

- This method cooks quickly, heats food for the shortest amount of time, and uses as little liquid as possible. If you cook veg in a microwave with a small amount of water, for example, it essentially steams food from the inside out. That keeps in more vitamins and minerals than almost any other cooking method.
- The fact that microwaves can cook and reheat food very quickly means their cost



- per use is likely lower than many other cooking appliances – microwaves use up to 80% less energy than conventional ovens. They also require little to no added fats to cook foods and shorter cooking times help retain nutrients.
- If you’re preparing a large meal, batch cooking in an oven and then reheating portions as needed in the microwave can be a good way to lower your energy use.



## Sautéing

- When sautéing or stir-frying, it’s best to cook with small amounts of unsaturated fats and oils like rapeseed, sunflower or olive oil instead of butter, ghee, lard or coconut oil. Spray oils – some are as low as 1Kcal per spray – can help control the amount you use.
- Using a hob is typically quite cheap because you won’t generally need to have it on for very long to prepare meals such as pasta or an omelette. To reduce the amount of energy you use, cover pots and pans with a lid.

## Air frying

- Traditional deep frying involves submerging food in a significant amount of oil, which can add lots of calories and unhealthy fats to the food.
- Air frying typically cooks food more quickly, helping retain more of its nutritional value, and it can produce a crispy texture on the outside of food without submerging it in oil.
- An air fryer works like a small conventional fan oven. As it’s small, using an air fryer can often be cheaper than using your oven for the same meal. This makes it ideal for preparing smaller amounts of food for one or two people. To avoid letting out heat and wasting energy, try not to open the compartment any more than necessary.



■ You can learn more about a healthy diet for diabetes in the Food Hacks section in our online Learning Zone. Visit: [diabetes.org.uk/bal-zone](https://diabetes.org.uk/bal-zone)





Flying high: Chris undergoes several tests each year to make sure he can take to the skies and continue his passion as a flying instructor

## LET'S TALK ABOUT... MEDICAL LICENCES

➔ **Chris Wilkinson, 44, a flying instructor from Reading, was diagnosed with type 1 in his 30s**

I'd just been on a trip to Prague with a friend who'd been diagnosed with type 1 a year earlier. When I got home, I was waking up with a dry throat, really thirsty, and getting up to pee all through the night. I put it down to us drinking on our holiday. But it continued, and one morning, I couldn't see out of my right eye. By the end of the day, I was in hospital.

I've been flying planes since my teens. I got my pilot licence on my 17th birthday, before my driving

licence. Whenever I'm flying or teaching people, I go to bed with a buzz and can't wait for the next day.

I thought that when I was diagnosed with type 1, I was going to lose my licence. That was an awful feeling. My partner did some research and found some people who had medical licences, but they were commercial pilots with a whole crew. I'm always pilot in command in a solo aircraft, flying with a student or with friends.

I teach people to fly, so if something happens to me on that plane, that's it. Luckily, the UK Civil Aviation Authority is probably the most

proactive in all the countries to keep people with diabetes flying. But I still have to jump through many hoops.

Every year, I have to do a cardio fitness test and send my blood test results, my eye screening, and 12-month readings from my continuous glucose monitor (CGM). Most of these tests are done privately. I meet the Professor of Diabetes and Endocrinology at the University of Surrey and consultant physician at the Royal Surrey County Hospital, which costs about £180 over Zoom. It's a lot of money, and other instructors have been put off trying to get their medical licence because of what you have to go through and how much it costs. I'm lucky I can afford it, and it's a good MOT for me to flag any problems.

I'm currently self-funding my CGM, which is expensive, but because my diabetes is so stable, my local trust won't fund it. I find that bizarre.

Now, I'm helping other people with diabetes understand the process of getting their licence and pointing them in the right direction. I love that. Some people are told they just can't fly, so they'll say they know me and I have type 1 diabetes and a pilot licence. And I've helped my GP understand what checks I need, as he hasn't really met anyone like me.

I do have down days when I wonder why my levels are high or low. I am a positive, outgoing person, but I do have moments where I think, 'why have I got this?'

My advice for someone who's been told they can't do something because of their diabetes is that, unfortunately, we have to plan everything. We may not get there first time, but keep going and think about other ways around it.

■ **Chris was involved in our Diabetes Tech Can't Wait campaign. Find out more about our call for everyone living with diabetes to have fair and equal access to the diabetes tech they're eligible for by visiting: [diabetes.org.uk/bal-tech-campaign](https://diabetes.org.uk/bal-tech-campaign)**



If Richard was passionate about something, he went all out. I was incredibly proud of him because he was so driven.

### **A groundbreaking treatment**

Richard was 33 when he was diagnosed with type 1, and his condition was always very difficult to manage. He had very little hypo awareness, and there were many hair-raising situations over the years.

In 1996, he had a terrible car crash after having a hypo while driving. He broke three lumbar vertebrae, but he was lucky it wasn't worse. From that day forward, as well as coping with diabetes, he suffered from chronic severe back pain, but he just got on with it somehow.

### **A world-first**

Our lives were transformed when Richard received his islet cell transplants in 2004 and 2005. For a year, he didn't have to take insulin and that made him realise what it might be like to live a 'normal' life.

Although he did eventually have to start taking insulin again, he got his awareness of hypos back and started speaking on behalf of Diabetes UK about this remarkable treatment and the extraordinary impact it had made on his life.

# **WE ARE FAMILY**

**Paula Lane pays tribute to her husband of 43 years and our former president, Richard Lane OBE, who died in September 2023**

**➔ In 2004, Richard Lane had the UK's first successful islet cell transplant, where clusters of insulin-producing cells are taken from donor pancreases and grafted into the liver of a person with type 1, helping the recipient make some of their own insulin again.**

**Richard became involved with our work because we had funded the research behind his pioneering treatment. He served as President from 2008 to 2015 and then appointed our first Ambassador.**

**Richard died at St Christopher's Hospice in Sydenham on 15 September and is survived by Paula,**

**their son, Simon, daughter, Rachel, and three beloved granddaughters.**

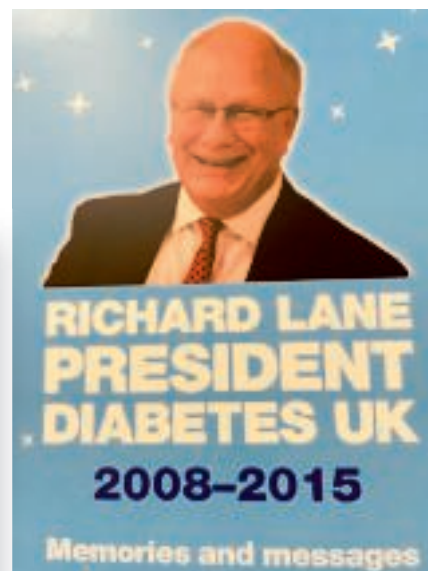
**Paula says:** I can picture Richard, wearing a protective boot that had been prescribed by his diabetes foot specialist, pulling his suitcase hurriedly behind him as he set off to catch a train to visit one of Diabetes UK's local support groups. During his time as President, Richard visited every single group across the country, travelling over 35,000 miles.

Living with diabetes himself, he was able to bring a very personal perspective to his role. He knew only too well that you can try your best, but it's not always enough.





**Celebrating life: Richard receiving his OBE, proud to be Diabetes UK President, and making memories with wife Paula, son Simon, and daughter Rachel**



He went into the hospice for the last two weeks of his life, and it was absolutely wonderful. The consultant there said, “We know you’ve been used to being very diligent about your blood sugars, but we have different standards here in palliative care.”

They said a target range of 6.5mmol/l to 15mmol/l was acceptable because the last thing you’d want when you were so poorly was a hypo. They said Richard could eat whatever he wanted, and he did just that. Diabetes, by that time, was the least of his worries.

The afternoon before he died, Richard asked me to help him make a list of people he wanted to join him for a glass of champagne to toast his 80th birthday in two weeks’ time.

On 26 September, we had a small gathering to mark his birthday, where we had a toast to Richard. It was a miracle in many ways that he reached almost 80, and that was something worth celebrating.

The hundreds of people who attended his memorial service were a testament to how loved he was.

### **“If Richard was passionate about something, he went all out. I was incredibly proud of him”**

Richard was thrilled when he was appointed President of Diabetes UK, a position he proudly held until 2015. He was so passionate about diabetes, and he wanted to spread the word about the incredible treatment he’d received and the role the charity had played in funding the research that made it possible.

Over the years, in his role as President and later Ambassador of the charity, he hosted many events and travelled to cheer people on at the Great North Run and London Bridges Walk. He successfully lobbied Parliament to save the pioneering foot clinic at King’s College Hospital, where he’d received treatment from Professor Mike Edmonds. The charity named a conference room at their offices after him, and he was tickled pink about that.

### **A family affair**

I think anybody who’s married to someone with type 1 diabetes would have good knowledge of the condition. Because I was a nurse, I was able to understand it, and I learned a lot as time went on.

Diabetes does have a ripple effect in a family. If Richard’s sugar levels were not right, he could be tetchy. We knew that wasn’t him, it was the condition.

In 2019, Richard was diagnosed with pulmonary fibrosis, where the lungs become scarred and breathing becomes increasingly difficult. Like type 1 diabetes, it’s an autoimmune condition, and it is life-limiting.

Richard had been chairman of our local hospice, St Christopher’s, and he chose to die there because he wanted to make it as easy as possible for me. He didn’t want to leave me with memories of him dying in our home. That was typical of Richard – he always thought about me when he was making any decisions.

■ **For more information about islet transplants, visit:**

**[diabetes.org.uk/bal-research-impact](https://diabetes.org.uk/bal-research-impact)**

■ **To find your nearest local support group, visit: [diabetes.org.uk/bal-groups](https://diabetes.org.uk/bal-groups)**

# MEET OUR RECIPE DEVELOPER LORNA BRASH

Food writer and broadcaster Lorna creates and tests all the exclusive recipes that appear in *Balance*, working with our expert in-house nutritionists to ensure they're healthy and delicious



➔ I use seasonal produce as much as possible, and I enjoy writing recipes that suit our different readers, whether that's someone living on their own, who has a family to feed, or is always on the go. Because I work long hours myself, I like creating meals that can be rustled up quickly and one-pan dishes.

I love it when people tell me they've made my recipes. Any criticism is valuable, so if there's something they didn't enjoy, I like to know because I'll adapt my recipes based on feedback and try to think of alternatives. If people say they didn't like a recipe because it contained tofu, for example, it makes me even more compelled to create a similar dish that they will enjoy.

Writing recipes is like solving problems. Often, you're trying to avoid using something or other, and you have to find an alternative that tastes just the same. We can't always solve all the problems we encounter, but we can come really close.

It was nice to be asked to be *Balance's* recipe developer because my sister has lived with type 1 for 49 years. Diabetes has completely changed from how it was when she was first diagnosed. Today, my sister has a FreeStyle Libre that's made her condition much easier to manage.

I've been writing recipes for 25 years now. My mum is a fantastic cook and my inspiration. She grew up in an age of rationing and food shortages, and she's one of those people who

can turn a few ingredients into a proper meal.

After doing food studies at college, I got a job on a magazine, and I just loved the creativity of it.

Seeing your recipe in a magazine or a book gives you a real sense of achievement.

Before we photograph any of the recipes for *Balance*, I have to test them to make sure that they work. If I'm not quite sure about something, I'll ask a friend to make it and give me their feedback on whether they liked it and if they found it easy to follow. I get lots of great suggestions that way.

When I write recipes for *Balance*, I work from Diabetes UK's nutritional guidelines. Then they're analysed by nutritionist Stephanie Kudzin. She always has lots of helpful suggestions to make them a bit healthier. Avoiding added salt is one of the biggest considerations, as too much salt can raise your blood pressure. We always want to give our readers recipes and cooking methods where they won't feel a need to use salt – chargrill, for example, adds lots of flavour. Or frying spices, garlic and ginger is a delicious alternative to salt.

I love the visual element of my job. When

we photograph the recipes for *Balance*, I like making things look gorgeous. But it's got to be tasty in the end!

## FUN FACT

■ My favourite food is sushi and Singapore noodles.

■ I used to take November and December off work and go travelling. Canada was my favourite place – it has scenery very like Scotland, my place of birth, although they didn't have square sausage or lentil soup.

■ The largest number of people I – and a team – have cooked for is 60,000! It was for the Great North Run, where the race sponsors provided pasta for each runner.







# DISCOVER THE POSSIBILITY OF TYPE 2 REMISSION

Type 2 remission is when your blood sugar levels return to a non-diabetes range, without the need for diabetes medication.

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Tailored tips and advice with a remission course on Learning Zone.



Support from people with experience of remission on our online forum.

Visit [diabetes.org.uk/remission](https://diabetes.org.uk/remission) to get started.



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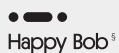
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