

# BALANCE

The exclusive magazine for  
Diabetes UK members

**300TH  
ISSUE**



**LET'S  
CELEBRATE**

Party food  
packed with  
goodness  
and flavour

**BRAINPOWER**

Insulin could be  
harnessed from  
surprising sources

## FOR GENERATIONS TO COME

How David and his grandson  
have benefitted from our fight  
for better diabetes care



**Confidence**  
**whatever**  
**your lifestyle.**



## **CliniSure urinary sheaths** - designed for your comfort & peace of mind

A soft silicone device designed to manage urinary incontinence, ensuring a comfortable and secure fit.

- ▶ Environmentally friendly packaging
- ▶ Our sheath comes in discreet, no-noise packaging that is easy to open.



## **See if a urinary sheath is right for you!**

Order your free sample today - our careline team will give you the support you need...

Call: **0800 301 6004** or **scan here:**



**CliniMed**<sup>®</sup>

CliniMed Ltd, Cavell House, Knaves Beech Way, Loudwater, High Wycombe, Bucks HP10 9QY **Tel:** 01628 850100 **Fax:** 01628 527312  
**Email:** enquiries@clinimed.co.uk **Web:** www.clinimed.co.uk  
CliniMed<sup>®</sup>, CliniSure<sup>®</sup>, are registered trademarks of CliniMed (Holdings) Limited. ©CliniMed Ltd 2023. PID 11250

**CliniSure**<sup>®</sup>  
URINARY SHEATH



**300TH  
ISSUE**

## Welcome to your autumn issue of Balance

Since 1961, we've been keeping members up to date and informed on the latest diabetes news and breakthroughs through our iconic magazine's pages.

We've looked into our archives to see how things have changed for people living with diabetes in that time. And looking to the

future, we have the latest on an exciting new NHS programme for type 2 remission and everything you need to know about hybrid closed loop technology for type 1.

Our members often tell us that being part of Diabetes UK helps them feel that they're not alone. It's always a privilege for us to share the stories of people from all backgrounds and walks of life, living with diabetes day in, day out.

To celebrate this special issue, we've asked people to reflect on the 'milestone moments' of their diabetes journeys. We also have advice on managing anxiety, how 'activity snacking' can help you manage your blood sugars, expert tips on staying healthy during Diwali, and tasty, nutritious party food recipes.

PS. you will soon have the chance to renew your membership online! Look out for an email prompt coming soon.

Senior Membership Manager,  
Diabetes UK



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



p26

**Professor Partha Kar reflects on his quest to improve diabetes care**



p54

**Join our celebrations with healthier party food recipes, developed by our experts**

### YOUR FREQUENTLY ASKED QUESTIONS

**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: Why has my welcome pack still not arrived?**

We're working hard behind the scenes to improve our welcome journey for new members, ensuring they receive helpful information and advice about living with diabetes much sooner. If you're still waiting for your pack, please contact our helpline on **0345 123 2399**

**Q: Can I receive Balance in large-print or audio formats?**

Yes, please call our helpline on **0345 123 2399** and let us know which format you'd prefer. We'll set this up and send you the latest copy.

### 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

Now with  
164,875 foods

# Portion Control Made Simple!

**Visualise Your Food Choices**  
*with the Carbs & Cals App*



**Find your foods quickly**  
Huge UK food database  
and **NEW!** barcode scanner



**Make informed choices**  
Understand carbs, calories,  
fibre and other nutrients



**Feel more confident**  
to choose healthy options  
and portion sizes



**Manage your diabetes**  
Helps you develop your  
carb awareness skills



**Achieve your weight goal**  
Easy portion control and  
daily food tracking

## Try it for Free!

Start your diabetes journey confidently and witness the positive impact on your lifestyle & wellbeing. Experience the app's full potential with a FREE 2-week trial: [carbsandcals.com/balance](https://carbsandcals.com/balance)

**Carbs & Cals**

Award-winning app & bestselling books  
for diabetes, weight loss & healthy eating



# CONTENTS

300TH  
ISSUE

26



50



## 06 The Bulletin

Our latest news and events

## 11 Over to you

Your letters and views

## 12 The Insider

The launch of a remission programme for type 2 and how we're tackling stigma

## 18 Ask the experts

Blood glucose smartwatches and gout

## 20 Past, present and future

David shares an understanding of diabetes with his grandson, Ethan

## 24 Crossword

## 26 Milestone moments

We reflect on diabetes journeys

## 34 Then and now

To celebrate our special issue, we catch up with old friends

## 37 Competition

Win a getaway at a luxury resort

## 38 Activity snacking

Take a stand and manage blood sugars

## 41 In the loop

Everything you need to know about hybrid closed loops

## 44 Alleviate anxiety

Expert advice on calming your mind

## 47 Our guide to good foot health

Reduce your risk of complications

## 50 Wear it well

Clothing and accessories from our shop

## 51 A happy, healthy Diwali

Feast and enjoy the festive season

## 54 Let's celebrate

With fresh, delicious party food

## 60 The food files

We delve into the recipe archives

## 63 Let's talk

The importance of peer support

## 64 We are family

Chirag and Sushila keep in step

## 66 Meet the researcher

Improving kidney and eye treatments



**For Diabetes UK:** Editors **Shirish Gandhi, Gabriella Taylor** Sub Editor **Angela Coffey**  
Contributors **Rob Brown**

**For the River Group:** Editor **Louise Zecevic** Creative Director **Jonathan Whitelocke** Design **Dale Walker**

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

ADVERTISEMENTS AND ARTICLES: Products and services advertised in Balance are not necessarily recommended by Diabetes UK. Although the utmost care is taken to ensure products and services advertised are accurately represented it is only possible to thoroughly check specialist diabetes equipment. Please exercise your own discretion about whether or not an item or service advertised is likely to help you personally and, where appropriate, take professional advice from your medical advisor. Products worn on the feet can cause issues for people with diabetes. Please check with your healthcare professional if the products advertised are suitable for you. Please note that any prices are applicable only to British buyers and may vary for overseas purchases. Paid adverts do not represent the views of Diabetes UK. Complaints regarding advertised services or products should be addressed to: Balance Content Team, Wells Lawrence House, 126 Back Church Lane, London E1 1FH, or email [balance@diabetes.org.uk](mailto:balance@diabetes.org.uk)

© Diabetes UK 2023 A charity registered in England and Wales 215199 and in Scotland SC39136.

# THE BULLETIN

The latest diabetes news, research and developments

## Celebrate our pioneering research

For more than 85 years, we've been at the forefront of diabetes research.

As this year marks 100 years since Charles Banting and John Macleod won a Nobel Prize for their life-saving discovery of insulin, we want to celebrate all we've achieved.

On 25 October, 100 years to the day since their Nobel Prize win, we'll be launching the latest edition of our research impact report. In it, we look back over decades of breakthroughs, sharing stories from our scientists about the discoveries that have transformed diabetes care and treatments and changed lives.

We're also hearing from people living with diabetes whose lives have been changed by the pioneering research we've funded and all the exciting things that lie ahead.

■ **Read about all these stories and more from 25 October at: [diabetes.org.uk/bal-research-impact](https://diabetes.org.uk/bal-research-impact)**



## Pass on something wonderful

Now more than ever, we are relying on gifts in Wills from supporters like you to help our work live on

➔ The last few years have prompted many of us to reflect on the things that matter the most – family, friends and the causes close to our hearts. We've also been reminded of the value of planning for the future to help us look after these really important things.

Remember A Charity Week, from 11 to 17 September is the perfect opportunity to consider passing on something wonderful by leaving a gift in your Will to Diabetes UK.

After taking care of your loved ones, even a small amount could help fund life-changing research, unearth new treatments and help rewrite the future for people living with and affected by diabetes. A gift in your Will could help bring us closer to the day when diabetes can do no harm.

### You're invited

Join us for our first-ever virtual Gifts in Wills Discovery Event for our supporters.

The Gifts in Wills Discovery Event will provide an opportunity to come together to hear about the amazing impact of gifts in Wills, now and in the future.

This virtual event, hosted by Colette Marshall, our Director of Operations, takes place on Wednesday, 11 October 2023, 6–7pm.

■ **To find out more about the Gifts in Wills Discovery Event or leaving a gift in your Will, please visit: [diabetes.org.uk/bal-legacy](https://diabetes.org.uk/bal-legacy) Call 020 7424 1853 or email: [giftsinwills@diabetes.org.uk](mailto:giftsinwills@diabetes.org.uk) ■ #RememberACharityWeek**

## NEWS IN NUMBERS

**5 MILLION**

**THE NUMBER** of people in the UK living with diabetes, new analysis shows

**463**



**THE NUMBER** of employees at Hinckley Point C nuclear power station who joined our webinar to learn more about diabetes during Diabetes Week

**2,200**

**THE NUMBER** of attendees at the Diabetes UK Professional Conference in April

**8,670**



**THE NUMBER** of people who took part in our Swim22 challenge this year

**£871,441**

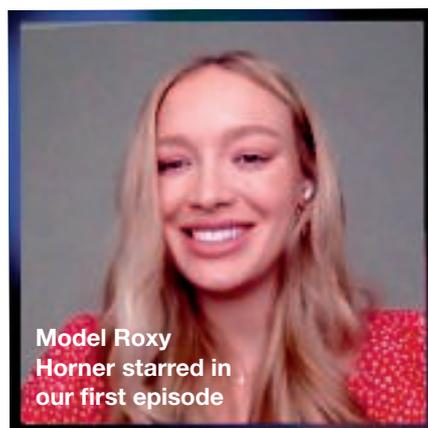
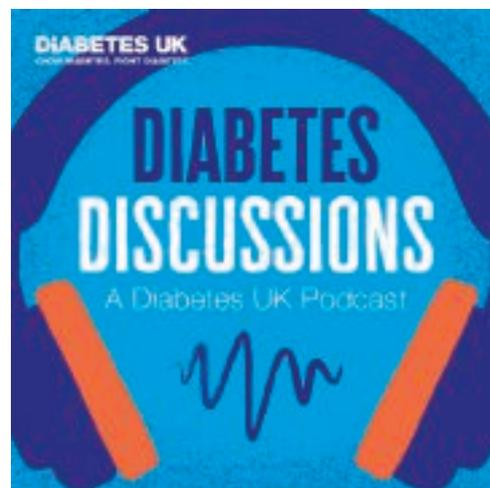
**THE FUNDS** raised by our Swim22 participants, which will help fund our life-changing work



## Tune in to our new podcast

**Diabetes Discussions, our first podcast series, is available now from all the main podcast platforms**

➔ Whether you're living with diabetes or know someone who is, our brand-new podcast – Diabetes Discussions – brings you the conversations you'll want to hear. We've spoken with volunteers and people with lived experience of diabetes to find out what topics and issues they want to listen to and who they'd like to hear from.



**Model Roxy Horner** starred in our first episode

So far, we've welcomed guests living with different types of diabetes, plus diabetes experts and researchers at the cutting edge of medical and technological developments.

Model Roxy Horner joined us for our first episode, and Nikita Kuzmin of Strictly Come Dancing fame came along to talk about exercise and sport.

Tune in to hear in-depth discussions about mental wellbeing, technology, stigma and so much more.

Catch up and subscribe on Spotify, Apple or wherever you get your podcasts.

■ **For more info, visit: [diabetes.org.uk/bal-new-podcast](https://diabetes.org.uk/bal-new-podcast)**

## Farewell to our Chief Exec

➔ **CHRIS ASKEW OBE** is stepping down after eight years as Chief Executive of Diabetes UK. Chris will leave in September 2023 to take on the role of Chief Executive at the Royal College of General Practitioners.

Chris joined us in 2015 and has overseen many significant developments for people with diabetes, including a new partnership between Diabetes UK, the Steve Morgan Foundation and JDRF to transform the lives of people with type 1 diabetes, as well as the development in the prevention and remission of type 2 diabetes.

Chris will be greatly missed by colleagues across the organisation. We wish him all the best in his new role.



## Fundraising feats



### Precious funds

A jewellery maker who has lived with type 1 diabetes for 60 years has raised £1,000 for us through her jewellery-making business.

Belinda, 64, from Suffolk, says: “I have always enjoyed being creative. I started making beaded necklaces more than 15 years ago. I feel really happy to be able to now be in a position to support Diabetes UK after the support they have given over many years to my parents and me.”

■ To visit Belinda’s website, go to: [belindaashton.co.uk](http://belindaashton.co.uk)

### Rising stars

The Weston family – Paul, Emma, Evie and Archie from Hertfordshire – held their third annual bake sale for us, raising an incredible £2,354.40!

Archie was diagnosed with type 1 in September 2021, aged one. Since his diagnosis, Team Archie has raised nearly £10,000 for us. Mum Emma said: “Archie is a strong, resilient little boy, and we take strength from him. Archie’s age means a lot of sleepless nights, but we are determined not to let it stop him from doing anything in life.

“If you’re fundraising for Diabetes UK, don’t be shy in emailing every company locally – you’ll be surprised at the generosity.”

The family also delivered leaflets to their local community, promoting their event and raising awareness of the 4Ts of diabetes symptoms: Toilet, Thirsty, Tired, Thinner.



**Archie gives a thumbs-up for fundraising and raising awareness**

## Get involved!

### London Bridges

There’s still time to join our London Bridges Wellness Walk on Sunday, 24 September. Whether you stride or stroll across the capital’s most iconic bridges – you’ll see famous sights while walking towards a happier, healthier future.

Then, celebrate your achievement at the finish line with a well-deserved medal and massage.

■ Sign up at: [diabetes.org.uk/bal-bridges](http://diabetes.org.uk/bal-bridges)



### UK Wide Cycle Ride

This October, cruise into our UK Wide Cycle Ride challenge and celebrate our 300th issue by taking on our 300-mile distance.

You can also choose from 150, 500 miles or even pick your own unique target.

Getting on your bike is a great way to leave the stresses of daily life behind and feel a boost in your mood. From 1 October, pedal for a stronger, happier you, and go the extra mile for people with diabetes.

■ Sign up today by searching UK Wide Cycle Ride or by visiting: [diabetes.org.uk/bal-UK-wide-cycle](http://diabetes.org.uk/bal-UK-wide-cycle)

## Flu jab season

If you have diabetes, your risk of getting the flu is higher, and having diabetes could make the flu worse. People with type 1 and type 2 diabetes, including type 2 managed by diet, are included in the at risk groups and are eligible for the free NHS vaccination. Contact your GP or pharmacy to book yours.

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



## Diabetes Tech and You

Our diabetes tech conference is exclusively online, with a new name and the same great content.

Join us on Saturday, 14 October 2023, to hear the latest updates and innovations in diabetes tech, listen to different people talk about how they use tech day-to-day and chat live with speakers and other attendees in our new networking room.

■ **Register today at:**  
[diabetes.org.uk/tech](https://diabetes.org.uk/tech)

## Have your say

It's that time of year when you can tell us what you think of your membership experience.

This includes what you read in Balance magazine. We'd love your feedback.

■ **Please complete the survey by 13 October at:** [diabetes.org.uk/bal-survey](https://diabetes.org.uk/bal-survey)  
**Or call our Helpline to give feedback on:**  
0345 123 2399



## Meet our Involvement Team

**They are making sure the voices of people affected by and at risk of diabetes is central to everything Diabetes UK does**

**WE WANT TO** make sure views and insights from those with lived experience of diabetes help shape our work from the outset.

Our Involvement Team works together with people with lived experience, empowering you to make change happen and improve the lives of everyone affected by diabetes. The team also works with healthcare professionals and colleagues to support and help them in how to involve people with lived experience. And they provide training and resources to establish great involvement across all our work.

Involvement is about sharing your experiences to influence the design, delivery and review of a service or activity.

The insights from those with lived experience help us continuously improve and make sure what we do is relevant, sustainable and

supports those affected directly by diabetes, by bringing lived experience to the heart of our charity.



### Join our Involvement Network

Diabetes

Communities in Action is a new group bringing together people affected by and at risk of diabetes to influence the work and decision-making of Diabetes UK. With this group, we will empower all communities affected by diabetes to take action and get involved.

Anyone living with or supporting someone with diabetes can join and receive regular updates on what is happening across the charity. Find out more and join this community at: [diabetes.org.uk/bal-DiA](https://diabetes.org.uk/bal-DiA)



### Help us ensure our work benefits all people living with diabetes

Become a member of our Diabetes Lived Experience Advisory Committee. They help us ensure our work benefits all people living with diabetes.

We welcome applications from anyone affected by diabetes in the UK, regardless of previous experience.

To make sure we represent all voices, we are actively looking for individuals aged 18–25, people living with type 2 diabetes and those from African Caribbean, Bangladeshi, Black African, Indian, and Pakistani backgrounds to join us.

For more info about the Committee and how to get involved, visit: [diabetes.org.uk/bal-committee](https://diabetes.org.uk/bal-committee)

## Type 2 medication shortages

➔ The NHS is currently facing supply issues with glucagon-like peptide receptor agonists (GLP-1 RAs), which is a range of drugs used for managing blood sugar levels in people with type 2 diabetes.

The global shortage in supply is partly due to a surge in off-label prescriptions of the drug semaglutide being issued for weight loss, which is outstripping supply.

It's important to keep taking your current supply and try to obtain a re-supply as you usually would.

If you have run out of GLP-1 RA and can't get re-supply, talk with your healthcare professional to find out if you have already been or are

going to be prescribed an alternative treatment.

It's not advised to attempt to get supplies from pharmacies in other areas as all areas across the UK are being affected by the shortages, which are expected to last until mid-2024.

If your healthcare professional has told you that you need a review because you are unable to obtain your supply of GLP-1 RA, you might find that this appointment is in a few weeks.

Due to the number of people affected by the shortages, it has been recommended that priority is given to individuals who are most



at risk. This means that some people will have to wait longer for their medication review.

■ **For more information and frequently asked questions about the shortage issue, please visit:**

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

■ **If this shortage is affecting your mental health and wellbeing, you can call our helpline for advice and support on 0345 123 2399.**

# GLUCOFIX<sup>®</sup> TECH GK

**A.MENARINI**  
diagnostics

The GlucoFix Tech GK is A.Menarini Diagnostics' NEW cost effective, blood glucose meter with ketone functionality.

Which has been added to the NHS England Guidance list of meters for people living with Type 1 & Type 2 diabetes.

 Larger display

 Improved design

 Enhanced usability



**Recommended by NHS England Guidance**



Visit: [www.glucomen.com](http://www.glucomen.com)  
Email: [myglucomen@menarindag.co.uk](mailto:myglucomen@menarindag.co.uk)  
Call: (UK): 0800 243 867

**Glucomen**<sup>®</sup>  
Simple • Smart • Connected™

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

# OVER TO YOU

Your views – from the postbag, forum and Twitter

## ★ STAR LETTER

### Reassured reader

I am a 94-year-old type 2 diabetic. I manage my blood sugar with metformin plus linagliptin, live alone, and care for myself without help.

I found the recent “Ask the Experts” on higher HbA1c targets for the elderly very reassuring. Mine had climbed to 64mmol, and when I asked my GP if insulin should be considered, they replied with something broadly along the lines of the article. But I suppose time pressures prevented a fuller explanation. So, I found your advice most helpful based as it was on a broad consideration of the progress of one’s metabolism and physical condition as one slides into dotage.

I am a smiley old man again now, and I dare say my blood sugar may come down a bit as a result!

**John Jennings, Norwich**

OUR STAR  
LETTER WRITER  
WINS A  
£50 SOCKSHOP  
VOUCHER



### ON THE FORUM AN INVALUABLE RESOURCE

**Everydayupsanddowns:** Apart from the support, the suggestions, the encouragement, the sources of information, book recommendations, food tips, the camaraderie, the sense of belonging and shared struggle – what has the forum ever done for us? Whether you’ve just joined this week or have been a regular member for more than a decade, what benefits have you found from being a member here?

**helli:** The main thing is knowing I am not alone. It is not always about support (although that is very valuable). It is also having someone to share wins and frustrations and (usually bad) diabetes jokes with. And that’s people who understand because they have been here too.

I have wonderful supportive friends but they can only sympathise. They cannot empathise.

**rebrascora:** For me, it has given me the knowledge and confidence to experiment and find my own way with managing my diabetes. A way that works very well for me as an individual. A lack of confidence is something that I struggle with in many aspects of my life and can be incredibly debilitating, so having confidence in my ability to manage my diabetes well, is a massive “gift” that the forum has given me. I suppose this is what empowerment is.... I feel empowered by the forum.

**Pawprint91:** When I was diagnosed, I honestly do not know what I would have done without this forum. I felt lost, alone, scared...

But seeing so many people who’d had type 1 for years, were living full, normal lives, enjoying food etc just gave me the hope that I needed that things would be okay again. Plus, they would answer any question or concern I had with no judgement. Forum members are worth their weight in gold!

### FROM THE TWITTERSPHERE



#MidsomerMurdersTeam  
#DiabetesUK #Swim22 #Phoad  
is swimming 44miles !!!! I’m only  
doing 11 this year. @AnnetteBadland1



Here’s a pattern I  
put together about  
#diabetestech. You  
can find it on my #redbubble  
site if you fancy it on stuff  
@mrpickers



Congrats to our  
Mr. Innovator Raj  
for completing the  
#diabetesuk Run, making  
strides for great causes both  
in the office & on the track.  
We love what we do at @  
advisedotscot, advising &  
helping people on Energy,  
Home heating, Money &  
many more. @advisedotscot



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

# THE INSIDER

The latest diabetes health news,  
research and developments

## Rolling out remission

**NHS England is set to extend a soups and shakes weight management programme. This has the potential to help thousands more people living with type 2 diabetes to go into remission. This milestone moment has been years in the making and is underpinned by our game-changing research. Let's look at how we got here**

➔ In September 2020, NHS England launched a pilot programme to provide a low-calorie diet treatment for people recently diagnosed with type 2 and living with overweight or obesity. Over 4,500 people took part in the 12-month programme. The findings showed it could help people to lose an average of 11kg (about 1st 7lb).

This has built the evidence NHS England needed to know that the programme works and, crucially, that it can successfully be delivered within the NHS. As a result, the NHS Type 2 Diabetes Path to Remission programme will be made available to everyone with type 2 who meets the criteria and lives in England by March 2024.

"Remission from type 2 can be life-changing, but getting the right support is critical. The expansion of this programme will offer even more people with type 2 diabetes a better chance of a healthier future," says Chris Askew, our Chief Executive.

### The programme

People with type 2 are offered nutritionally balanced, low-calorie meal replacement soups and shakes for up to 12 weeks to kick-start weight loss. After this, they receive support to return to solid foods and maintain their weight loss. This includes help to increase physical activity levels. Anyone taking part can choose face-to-face one-to-ones, group sessions, or remote support.

Currently, people can access similar programmes in Scotland. Soups and shakes weight loss programmes have also been piloted in Northern Ireland and Wales, and we want to see services becoming more widely available there soon.

While the possibility of remission is amazing news for people with type 2 diabetes, we know not everyone taking part in the soups and shakes pilot programme has been able to lose weight or go



into remission. This isn't a sign of failure, and there are still major benefits to losing even a small amount of weight and following a healthy lifestyle.

### The journey

A diagnosis of type 2 diabetes once meant the start of a lifelong journey with a serious condition. But our research changed what is possible. In 2008, we funded Professor Roy Taylor to run the first-ever study to investigate if losing weight through a low-calorie diet could help some people with type 2 diabetes bring their blood sugar levels back to within normal range.

Prof Taylor's theory was that the weight loss reduced levels of harmful fat stored in the pancreas and liver, kick-starting the organs to work properly again and putting type 2 diabetes into remission.

This study was followed quickly by



Chris Askew OBE

**"Remission from type 2 diabetes can be life-changing for people"**



the positive results of a larger trial testing the same concept. As the evidence continued to grow, so did the interest in remission. But it still wasn't part of the everyday discussion about type 2. Questions remained:

- Was a low-calorie diet approach better than standard type 2 care?
- Once people go into remission, can they stay there long term?
- Could this be delivered and work in our health system?
- What happens inside the body when people go into remission?

To get answers, we brought together Professors Roy Taylor and Mike Lean to run our landmark DiRECT study. It was our largest research award, and tested whether a low-calorie weight management programme delivered by GPs could help some people living with type 2 diabetes and overweight or obesity go into remission.

### DiRECT action

The first-year results of DiRECT, announced in 2017, were game-changing. They showed the approach helped people lose weight and, for some, put their type 2 into remission. Almost half (46%) of those who took part were in remission after a year. The latest results, revealed earlier this year, show that, for some, weight loss can keep their type 2 in remission for at least five years. We learnt that the chance of remission was higher the closer someone was to diagnosis, and that success was closely linked to weight loss.

Since DiRECT, we've also supported the ReTUNE study, which has shown that a similar approach could help some people with type 2 diabetes and lower body weights.

### What's next?

We know a DiRECT-style approach isn't suitable or doesn't work for everyone with type 2 diabetes. That's why we continue to invest in research to find more routes to remission and give more people the best chance to lose weight, maintain weight loss and stay in remission. This includes the NewDAWN project. It's a £2.2 million initiative that aims to develop a new NHS support service offering a range of weight loss diets for people with overweight or obesity and newly diagnosed with type 2. The aim is to help everyone find a diet that's right for them so they have the best possible chance of going into remission.

We'll also be making sure we can better support people interested in remission to understand whether it



Prof Roy Taylor

**"We continue to invest in research to find more routes to remission"**

might be suitable for them and what their options are, along with how we can support people once they are on their remission journey. We know there is also more to do to make sure everyone with type 2 diabetes and their healthcare professionals understand the potential that remission holds. But also that it's not a quick fix and that

diabetes can return. That's why we will focus on overhauling and expanding the information, advice and support we provide around remission.

Finally, people with type 2 have told us they experience stigma that can stop them from accessing the treatments that would help most. We want to address this so that no one feels shame and guilt about their condition. We also want to help others understand the complex drivers of type 2 diabetes.



**Professor Jonathan Valabhji, NHS National Clinical Director for Diabetes and Obesity, says:**

"I am delighted that more people are making use of this programme, with thousands more set to benefit across England in the coming year.

This is the latest example of the NHS effectively deploying evidence-based treatments to help people with type 2 live well. Obesity is a significant factor and cause of several serious diseases, so the NHS is always here to help people lose weight when necessary, and live healthier lives."

# When art and science collide

**Our scientists, women who've taken part in their research, and an artist have joined forces to promote inclusivity in research and raise awareness of the experiences of women with gestational diabetes**

➡ Art for Change through Engagement (ACE) features women who've had gestational diabetes, who took part in our DiGest trial. It's led by our Harry Keen research fellow, Dr Claire Meek. DiGest is finding out if reducing calories during pregnancy could improve the management of gestational diabetes.

## What is gestational diabetes?

Lots of changes happen to your body during pregnancy. These include changes in the levels of hormones you produce, which can make it hard for your body to use insulin properly and cause blood sugar levels to rise, leading to gestational diabetes.

Although gestational diabetes goes away once the baby is born, it can also increase the risk of developing type 2 for the mother and child later in life.

So, receiving the best care for gestational diabetes has a dual purpose, to keep both the mum and the baby safe and well now and in the future.

## Project inspiration

Previous research has shown that Black and South Asian women have a higher risk of developing gestational diabetes. And if they do develop it, there are unacceptable inequalities when it comes to related health outcomes. Black and South Asian women previously diagnosed with gestational diabetes are up to three

times more likely to develop certain long-term health conditions, including cardiovascular disease, compared to White women.

People's ethnicity can also affect the opportunities they have to take part in research.

"I see first-hand how Black and South Asian women are disproportionately affected by gestational diabetes and how underrepresented they are in research. I want to help break down those barriers and promote inclusivity in this space", says Danielle Jones, a PhD student working on DiGest.

## Coming up roses

The ACE project aims to tackle some of these challenges and promote research in a creative way.

Women who represent a range of ethnicities and who took part in the DiGest study created a piece of art that

represents their experiences and cultures. Researchers hope sharing the art will make more women with gestational diabetes from different ethnicities feel welcome in research.

Without diversity and inclusivity in research, the findings of that research may not be relevant to everyone. And this risks widening the inequalities gap even further.

Along with their family members, the women were invited to contribute textiles which they feel represent a specific part of their culture, and get their creative juices flowing by

turning them into petals. These petals were combined to create a fabric rose bush.

"It was great to have two different institutions that do completely different things coming together," says Amanda Lavis from the Cambridge Art School.

"I loved how the simple act of crafting could bring about some great conversations," adds Danielle.

A rosebush was selected to reflect how mothers grow and develop



**Creating change:**  
Combining perspectives  
and raising awareness  
with textile art

through pregnancy, as well as recognising just how many people it takes to raise a child.

"We talked about how you need a community to help you raise a baby, which is why we decided to use a rose bush rather than a single rose. Each part of the final piece forms a part of someone's journey, which can be recognised as being part of a much larger network", says Amanda.

All the women who took part also had common experiences and shared struggles, including finger pricking

during pregnancy. The thorns symbolise something that is both painful and protective.

### What's next?

"I'd like to see some clarity in the dietary recommendations for managing gestational diabetes, continuous glucose monitoring to become more widely available, and some focus placed on the impact on mental health", says Danielle.

With our funding, Danielle's work



on the DiGest study will help towards this goal. The research could lead to a change in guidance and new, clear calorie targets for pregnant women with gestational diabetes that helps reduce the risks of short- and long-term health problems for them and their family.

The final piece of art has been installed in the Rosie Hospital in Cambridge, where DiGest takes place, as a permanent reminder of the importance of making research inclusive and welcoming to all.

## All cheers!

**Pint of Science brings researchers and the public together to learn from each other in friendly environments. Two of our brilliant researchers at the University of Exeter gave pub-goers a run through of their latest Diabetes UK-funded work**

### Shape-shifting stem cells

After getting a round in at The Bootlegger in Exeter, we heard from Dr Chloe Rackham.

She told us about islet transplants – where cells from a donor pancreas are given to people with type 1 to replace those that have been destroyed by the immune system. This can allow people to temporarily make their own insulin again.

Islet transplants are currently only available to people with type 1 with both hypo unawareness and severe hypos. And they aren't a permanent fix. After transplantation, the donated beta cells, over time, become inflamed and die off.

With our funding, Dr Rackham's working on a solution. She told us about an exciting group of stem cells, called Mesenchymal Stem Cells (MSCs). These can respond to signs that tell us the beta cells are under attack and can boost their healing powers – reducing damaging inflammation. And they could also help to protect beta cells from the attacking immune system.

By studying how MSCs work and how they could be used to supercharge the powers of beta cells, we could better help transplanted beta cells to survive and thrive.

That could make transplants more effective and mean more people with type 1 can benefit from them.

### The brains behind diabetes

Next, Dr Craig Beall told us how important the brain is in managing blood sugar levels. The brain takes

up around 2% of a person's body weight but needs about 20% of the body's entire supply of sugar. So it's really important for the brain to have a constant supply of sugar – this is why hypos can be so dangerous.

A type of molecule called AMPK acts as the brain's fuel gauge, switching on when our body's fuel levels are low, like in a hypo, to alert the liver to make more sugar. This can allow people to temporarily make some of their own insulin again.

### Metformin on our mind

Metformin, a drug often used to treat type 2, can turn up levels of AMPK in the brain. This means it could hold potential to help prevent hypos. We're funding Dr Beall to figure out exactly how metformin works in the brain.

Recent breakthroughs show that insulin can be made in the brain, even in those who've lived with type 1 for a long time. So, it could be possible to harness this new source of insulin, and pave new routes to treat diabetes.



We raise a glass to Dr Rackham and Dr Beall for their amazing work, and to Pint of Science for their support.



# Beating diabetes stigma

We're funding scientists to find fresh approaches to a pervasive issue

➔ We know that too many people living with diabetes experience stigma, and that this can take a real toll on their health and wellbeing.

In the last issue of Balance, we shared our work to delve into the scale of the problem. We heard that a shocking 80% of people have encountered negative attitudes because of their diabetes.

But to find ways to address it, we need a better understanding of how diabetes-related stigma develops and how it affects people. Our Diabetes Research Steering Groups have, however, told us a lack of research into the issue means we just don't know enough. To help correct this, we ring-fenced research funds and called on scientists to apply with their ideas for research that would help us understand and tackle diabetes stigma.

They did just that, and after being rigorously reviewed by our panels of scientists and people with diabetes, we're delighted to award almost £500,000 to two brilliant researchers. They will each explore different problems that could unlock fresh

approaches to managing diabetes stigma. Here we take a closer look at these exciting new projects.

## Combating type 1 stigma

Professor Nick Oliver and his team at Imperial College London will examine the causes of type 1 diabetes stigma,



exploring who it impacts and how to reduce it.

Over the next two years, Prof Oliver and his team will survey a large and diverse group of people living with type 1 diabetes, to take a deep dive into their experiences of stigma.

The team will work hard to make sure the voices of people with type 1 from a wide range of ethnic and economic backgrounds are included in their research. This means we can be sure the findings will be relevant to the experiences of everyone with type 1 living in the UK.

The survey responses will help the researchers understand how stigma develops and evolves during the years



after type 1 diagnosis. They'll also explore how factors such as age, sex, ethnicity, education and diabetes management affect people's experiences of stigma and how stigma affects a person's physical and mental health.

The researchers will then run focus groups to talk with people who are most affected by stigma to take a closer look at what experiences lead to stigma and how it causes distress.

We're hoping that finding out more about what causes type 1 diabetes stigma, who experiences it and how it affects them, could help develop novel ways to reduce or prevent the impact stigma can have.

**"Understanding the causes of stigma may result in ways to reduce its impact"**



### Shedding the stigma around gestational diabetes



Pregnancy is a time when people can face even greater judgement and scrutiny over their diet, physical activity

levels or other health-related behaviours. This can mean women with gestational diabetes may face even more stigma. Research has shown people often experience negative stereotyping, such as ‘being lazy’, having ‘poor eating habits’ and ‘lack of willpower’, from both healthcare professionals and others.

Currently, there are no interventions to help combat gestational diabetes-related stigma. Together with women

who have first-hand experience of gestational diabetes and healthcare professionals, Dr Rita Forde and her team at King’s College London will explore the impact of anti-stigma films and communication tools.

First, Dr Forde and her team will pinpoint different sources of stigma. They’ll run interactive group sessions with women who have or have had gestational diabetes, family members of women with the condition and healthcare professionals. The sessions will explore language, situations and stereotypes that trigger stigma, and ways to manage these.

The groups will then work with a storyteller and animator to co-create short films and other communications that challenge these narratives.

Reducing stigma in women with gestational diabetes has both short- and longer-term benefits. More immediately, it could help build more positive relationships between women and healthcare professionals, reduce feelings of blame and improve emotional wellbeing. This could help women engage more positively with their own health. It could also help overcome the risk of developing type 2 diabetes later in life.



### Steps to stop stigma

But the work doesn’t end here. We know that people living with all types of diabetes are at risk of experiencing stigma, and we urgently need more research to understand how we can start to tackle it for everyone. We hope these pioneering new projects will pave the way for even more research exploring stigma in more people and find ways to lessen the impact on everyone living with diabetes.

Dr Steven Parks, Research Manager for our Diabetes Research Steering Groups, said: Researchers around the world have attempted to understand the impact of stigma experienced by

**“These studies will inform future work on how stigma can be prevented”**

people living with different types of diabetes, but to date, no studies have focused on

how stigma is experienced by those with type 1 or gestational diabetes in the UK. These studies are the first of their kind in the UK, and their findings will inform future work on how stigma can be prevented, both in the context of care and in wider society.

“Preventing stigma is key to ensuring that the impact of diabetes is minimised, allowing people to live happier and healthier lives.”

■ Find out more at: [diabetes.org.uk/bal-stigma-research](https://diabetes.org.uk/bal-stigma-research)



# 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 have seen a lot of target ads on social media for watches that can read your blood sugar level through guided laser. I'd assumed these do not work, but I am surprised when I look online at big retail companies as there are hundreds of these watches for sale. If these don't work, the misinformation is dangerous. Have you come across these or warned people about them?

**Caitlin, York**

**DOUGLAS SAYS:** There have been recent advancements and increased popularity in health monitoring features in smartwatches, such as tracking sleep patterns, heart rate, blood pressure and blood oxygen. One of these features is measuring blood glucose levels through the skin with a smartwatch.

Blood glucose monitoring watches, or non-invasive blood glucose smartwatches as they are sometimes known, are intended to be used without a sensor attached to the body and do not penetrate the skin. They work by detecting blood glucose transdermally –



through the skin.

The premise is to reduce the need to insert a needle into the skin, reduce environmental concerns with the amount of plastic used for flash and continuous glucose monitors (CGMs), and reduce the potential time lag between interstitial glucose readings compared with blood.

Initial research on non-invasive blood glucose smartwatches has shown that these devices are not currently accurate to the same standard as flash or CGM, which measures the glucose levels in the interstitial fluid.

There is a lot of misinformation online, and sometimes it can be hard to find out if the details or products are legitimate. For a medical product to be

regulated and licenced for use in the UK, it has to follow a process and demonstrate accuracy within certain parameters. Before it reaches the licensing process for regulation, there must be evidence of its effectiveness and accuracy through research studies.

Currently, commercially available watches with a glucose-measuring function don't have to follow the same testing process that medical devices do. And the research for these non-invasive blood glucose watches is still at an early stage. As such, there is currently no regulation for this technology, unlike devices available through the NHS, and customer reviews suggest disappointment in the glucose-measuring function.



**Q** I have had type 2 for over 30 years and seem to have managed it fairly well, according to my GP. I generally follow a reasonably healthy diet, but during a recent holiday, I 'overindulged' more than usual. Unfortunately, the last few days of the holiday were spoiled by a bad attack of gout. It affected my knees and ankles and stopped me from walking, and when my blood sugars were tested, they were much higher than usual. So, I am wondering if there is a link between type 2 and gout?  
**Ron, Bishop Auckland**

**ESTHER SAYS:** Gout is a form of inflammatory arthritis where crystals form in joints causing inflammation. It is very common, affecting around 2 out of 100 people in the UK and is more prevalent in men than in women in the general population. Risk factors for gout include:

- A family history of gout.
- Living with obesity.
- High blood pressure and high cholesterol levels.
- Medical conditions such as kidney stones and chronic kidney disease that lead to increased uric acid levels.
- A diet that includes a lot of foods high in purines, such as most alcoholic drinks, some fish, seafood and shellfish and some meats, especially game and offal.

Although it can occur in other joints, gout most often affects the big toe, and symptoms come on quickly, often at night. The joint becomes very tender and painful, hot and swollen. The skin also often appears shiny.

The relationship between type 2 diabetes and gout is complex and not well understood.

One large study seemed to show that people with gout were at higher risk of developing type 2 diabetes. This risk was higher in women than in men, and the findings were not impacted by BMI, lifestyle factors and other known risk factors.

Another large study suggested that people, especially women, with type 2, had a significantly increased risk of developing gout compared to people without diabetes.

But when researchers adjusted the results for the effects of known risk factors for gout (high BMI, high blood pressure, reduced kidney function), this additional risk was reduced and, in some cases, reversed.

So, researchers concluded the increased risk of gout was not caused by diabetes itself but by the presence of other health conditions, such as high blood pressure and reduced kidney function.

Some smaller studies seem to show an increased incidence of gout in people with diabetes. But smaller studies have also suggested people with diabetes, particularly type 1, had a reduced risk of developing it.

So, while the link between type 2 diabetes and gout is far from clear, both conditions share common risk factors.

Anyone with diabetes who develops gout-like symptoms, especially in their feet, should contact a healthcare professional as soon as possible.

Therefore, people living with diabetes should continue to use the blood glucose monitoring equipment supplied by their diabetes team, and we would not recommend smartwatches for measuring blood glucose.

However, you can use your smartwatch to check CGM readings if you have compatible devices and software.

For some CGM devices, you can download an app that connects to your glucose sensor. These apps can be downloaded to your smartwatch, which can then be used to receive readings or get alerts. However, unlike non-invasive blood glucose smartwatches, this requires a glucose sensor to be attached to your body.

■ To find out more, go to:  
[diabetes.org.uk/bal-cgm](https://diabetes.org.uk/bal-cgm)

#### 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](https://diabetes.org.uk/bal-forum)



# 300TH ISSUE PAST, PRESENT AND FUTURE

**David and his grandson, Ethan, both live with type 1 diabetes. Here, David and Ethan's mum, Emma, reflect on the incredible discoveries that have changed the way diabetes is treated and what this progress means for Ethan's future**

**A**s she picked up the phone to call her parents, Emma Hunt was terrified. "I'd never been so scared in life," she says. "My dad answered, and I said, 'I'm at the hospital with Ethan, and he has type 1.' Dad couldn't speak – I didn't know where he'd gone."

Emma's dad, David Haddock, 72, knew only too well what his grandson's diagnosis would mean. David has lived with type 1 since 1960. His father, Gordon, also lived with the condition.

But Emma is quick to stress that she hates to imagine her dad feeling any guilt or blaming himself.

"It's just one of those things, and Ethan is fine and carrying on with his life," she says.

"I grew up with a parent with type 1, so diabetes is all I've ever known. And I don't mean that in a negative way," says Emma. "It didn't stop my dad doing anything. And Dad's been amazing. Ethan had a spell of saying to me, 'you don't understand what it's like.' And that's true. But he shares something with his granddad that no one else in their lives truly understands."

David, who was eight when he was diagnosed, can't remember life before diabetes.

"It becomes part of your life," he says. "You have to think about it everywhere you go, but I've never let it rule my life.

"I was devastated when Ethan was diagnosed. I felt a certain amount of guilt, that it was my fault. But I know that really, type 1 just sometimes happens."

Ethan's symptoms began a couple of months after he started secondary school. Emma noticed he was losing weight and wondered if it might be because he was cycling to school every day.

"I did have some fears about diabetes because of my dad having type 1," she says. "Ethan was also getting up in the night because he was thirsty. I knew something was wrong."

But it was late 2021, and coronavirus was disrupting access to appointments at Emma's GP surgery.

"I tried for three weeks, but there were no appointments," she says. "When I said Ethan was losing a lot of weight – to the point that I could see his bones – they said if I was very worried I should take him to A&E.

"I eventually got an appointment for him to have a blood test, but a couple of days before that, he tested positive for coronavirus, so I felt I shouldn't take him to a hospital."

A crisis point was reached when Emma received a call from Ethan's dad to say he'd called an ambulance because Ethan was struggling to breathe.

"Within an hour of reaching the hospital, they told us he had type 1. I was in shock at the fact we could have lost him. It was just heartwrenching."

Ethan knew that his granddad had diabetes, that he used an insulin pen and wore a FreeStyle Libre glucose monitor.

"But he'd never seen my dad have a serious hypo like the ones he had when I was young," says Emma.

"There was the odd occasion where my mum couldn't sort out the severe hypos. Seeing my dad being taken away in an ambulance was scary."

Fear of hypoglycaemia, which is different from an appropriate level of concern, affects one in seven people with diabetes\*. These fears can also affect family members. People with diabetes and their families often have limited knowledge about hypoglycaemia beyond 'survival skills', which may lead to fear of hypoglycaemia.

Our website has lots of advice on ways to manage 'hypo anxiety': [diabetes.org.uk/bal-hypo-anxiety](https://diabetes.org.uk/bal-hypo-anxiety)



## Support from Grandad

Despite a challenging start, Emma says Ethan adapted to managing his condition fairly quickly.

“The hospital experience was tough,” she says. “With all the staff gowned to the nines because of coronavirus, it was like a scene from a movie. It was a lot for me to take in as his mum, and Ethan was only 11.

“Ethan quickly said he’d do his own injections. But I think at some point in the early stages, the thought of having to do five a day must have hit him. He almost had a bit of a panic at one point.

“I was on the phone to a nurse who said, ‘tell him he has the injection or he comes back into hospital.’ And since then, he’s dealt with it in a really mature, impressive way.”

Emma feels that having her dad as a role model has been invaluable. Both Ethan and David manage their diabetes with multiple daily injections and checking their glucose levels with a FreeStyle Libre monitor.

“I don’t think dad has the knowledge of diabetes that I’ve now got,” she says. “In some ways, it’s as though he’s treated the condition most of his life

with very little real insight into it.

“Since Ethan’s diagnosis, Dad’s said the support that’s available now is incredible.”

David agrees that diabetes treatment has transformed in ways he’d never imagined possible.

“When I was Ethan’s age, I took insulin in the morning and stuck to a regimented diet, but I had no idea what my blood sugar was doing during the day. I used to have loads of hypos – they’d come on with no warning. It’s only now I’ve come to realise how it must have affected my mother. She’d get a call from school saying I was in hospital. It must have been tough for her.

“The FreeStyle Libre I use today is brilliant. I don’t know how I managed for all those decades without one.”

Emma agrees that continuous glucose monitoring has made her and Ethan’s lives much easier.

“As soon as he started using one, I thought, ‘I can sleep now.’ That in itself is amazing. The only downside, and it is a tiny one, is that it’s always there.”

David says that because of diabetes, he and Ethan share a special connection.

“He does recognise the fact I’ve had

diabetes for a long time, and I know that people you live with have to cope with it as well, but to be honest, you’ve got to have diabetes yourself to fully understand it.”

Today, Ethan is thriving.

“I wonder if diabetes has forced him to face life in a different way. He’s really started to come out of his shell,” says Emma. “He loves trail biking, Formula One and football.

“I follow Diabetes UK on social media and tell Ethan about all the big research stories. I’ve just told him about the new ‘bionic pancreas’ that’s been approved for people with type 1 in the USA, which uses next-generation technology to automate insulin delivery with less input from the person wearing the pump.

“The magazine’s addressed to Ethan, so it comes for him. He’s been interested in the recipes, prompting conversations around carb counting.

“I wanted to join Diabetes UK because I feel like I need to be involved and in the thick of it – if I’m curious and providing Ethan with as much information as he needs, that’s really important, and I think the magazine is a big part of that.”



**"I wanted to join Diabetes UK because I feel like I need to be involved and in the thick of it – if I'm curious and providing Ethan with as much information as he needs, that's really important"**

## A GRANDAD'S PERSPECTIVE

David reflects on the progress he's witnessed in 63 years with diabetes

### EYE HEALTH

In the 1980s, Professor Roy Taylor set up a retinal camera in the ambulance to photograph people's eyes, and for the next three years, his team drove all over Tyneside, screening up to 48 people a day. Buoyed by the evidence that photographic screening worked on a large scale, we campaigned for a national eye screening programme for people with diabetes, which was rolled out in 2002. Today, every single person with diabetes should have access to annual eye screening. It means better vision for people with diabetes.

David says: "In my day, you saw a doctor every six months or so, but there were no specialist teams to take an interest in how you were getting on or keep an eye on you.

"Over the years, I've realised that the potential complications are the biggest problem when it comes to diabetes. I have retinopathy. My eyesight's not brilliant, but I class myself lucky to an extent that apart from that and some neuropathy, I've avoided any major problems."

### INSULIN PENS

In the 1970s, injecting insulin involved glass syringes, steel needles you had to reuse and drawing up insulin from a vial.

"The needles on the syringes for my daily injection had to be reused until they were quite blunt," says David.

Dr Sheila Reith and colleagues – see page 26 – came up with the idea of an insulin pen and with our funding, launched the first in 1983 that would improve the lives of millions.

### GLUCOSE TESTING

Little more than 50 years ago, if you had diabetes, checking your glucose levels at home involved a urine test and a small science experiment.

Through the 1980s, we supported Anthony Turner and his team in creating the world's first handheld electrochemical glucose meter. The technology changed how people with diabetes, especially type 1, managed their condition. It meant that in less than a minute, people could see their actual blood glucose levels and decide what treatment they needed.

Flash glucose monitoring was first introduced in the UK in November 2014 to buy and was available from the NHS in 2017. Since then, we've funded research that's provided evidence for how this technology

improves quality of life for people living with diabetes. Last year, new guidelines recommended wider access to flash and continuous glucose monitoring for people living with diabetes on the NHS.

These represent a shift towards a better understanding of technology as an integral part of diabetes management rather than an added luxury. We have been campaigning for better access to these technologies for many years and were actively involved in consultation on this guideline update.

David says: "From the 1960s to the 1980s, the only way to test your glucose levels at home was with a Clinitest urine testing kit. Balancing food and insulin was a case of 'hope for the best'."

■ For more info on our life-changing research, visit: [diabetes.org.uk/bal-research](https://diabetes.org.uk/bal-research)

# CROSSWORD

SOCKSHOP IS OFFERING THE CHANCE TO WIN A £50 VOUCHER TO SPEND AT [SOCKSHOP.CO.UK](http://SOCKSHOP.CO.UK)

Choose from a range of sock drawer staples, fashion styles and specialised socks, including over 80 brands from best sellers ELLE, HeatHolders, WildFeet, Jeff Banks and more.

Here at SOCKSHOP we believe socks are the unsung hero of the wardrobe, they can help you look good, feel good, have fun and keep you warm, cool, comfortable, dry, healthy and energised. Ensuring you feel good from the feet up!

**TO ENTER:** Send the grid to the Balance address — see T&Cs, below.



## ACROSS

- 1** Early computer language; star in Perseus (5)
- 6** Son of Zeus; case for decanters (8)
- 7** Ritual (4)
- 9** Unplayable serve in tennis (3)
- 10** Roman garment (4)
- 12** Suave (6)
- 13** Scene of trifling storm? (6)
- 15** Back fin (6)
- 17** Onus (6)
- 18** Mode of Indian music (4)
- 20** Extinct NZ bird (3)
- 21** Egress (4)
- 22** Formal interview (8)
- 23** Congregation (5)

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

Name \_\_\_\_\_

Address \_\_\_\_\_

Postcode \_\_\_\_\_

## DOWN

- 1** Versatile cricketer (3,7)
- 2** Woodwind instrument (4)
- 3** Animal with no backbone (12)
- 4** Meditative word or phrase (6)
- 5** Stopper (4)
- 6** Chemical present in small quantities (5,7)
- 8** Fleishy underground stem or root (5)
- 11** Mountain climber's staff (10)
- 14** Ancient manuscript (5)
- 16** Still getting interference on radio? (6)
- 19** Colourless astringent compound (4)
- 21** Nobleman (4)

**SOLUTION for last issue's crossword:**  
**ACROSS:** **ACROSS:** 1 Balboa, 4 Ranch, 9 Heather, 10 Bacon, 11 Ephemeral, 12 Tyro, 13 Lupin, 16 Ides, 19 Nashville, 21 Solar, 22 Grenada, 23 Berth, 24 Stamen. **DOWN:** 1 Behest, 2 Leader, 3 Ochre, 5 Albumen, 6 Cicero, 7 Archipelago, 8 Ingle, 13 Leveret, 14 Anise, 15 Isolde, 17 Disarm, 18 Sprain, 20 Exeat.

**T&Cs:** 1. Opens 12 September 2023. 2. Closing date is 7 December 2023. 3. The prize is a gift card from SOCKSHOP, worth £50. 4. Open to UK residents aged 18 and over. 5. Promoter: The British Diabetic Association operating as Diabetes UK (English charity no 215199 and Scottish charity no. SC039136), Wells Lawrence House, 126 Back Church Lane, London E1 1FH. 6. Go to [diabetes.org.uk/bal-comp-terms](http://diabetes.org.uk/bal-comp-terms) for full T&Cs.



# Automated Insulin Delivery Simplified



Omnipod® 5 is the first wearable, tubeless, waterproof,\* hybrid closed loop system integrated with Dexcom G6.

The Omnipod® 5 System works with the Dexcom G6 Continuous Glucose Monitoring System to continuously adapt and automatically deliver insulin according to your personal needs.



The Pod stays at work, while you live your life!<sup>5</sup>

- ➔ SmartAdjust™ Technology automatically adjusts your insulin
- ➔ May help protect against highs & lows
- ➔ No Multiple Daily Injections & No Fingerpricks\*\*



ORDER A SAMPLE POD<sup>3</sup>, VISIT [OMNIPOD.COM/DUK2](https://www.omnipod.com/duk2)

Speak to your Healthcare Provider to assess if Omnipod® 5 is a good option for you.

Insulet\_UK OmnipodUK omnipoduk

Pod and Dexcom G6 are shown without necessary adhesive. Screen image is an example, for illustrative purposes only. \*The Pod has an IP28 rating for up to 7.6 metres for 60 minutes. The Omnipod® 5 Controller is not waterproof. The Dexcom G6 sensor and transmitter are water-resistant and may be submerged under 2.4 metres of water for up to 24 hours without failure when properly installed. Dexcom G6 is sold separately and must be used with the Dexcom G6 mobile app. The Dexcom G6 receiver is not compatible. \*\*Fingerpricks required for diabetes treatment decisions if symptoms or expectations do not match readings. †The sample Pod is a needle-free Pod that does not deliver insulin. Controller is not included. ‡Bolus for meals and corrections are still needed. †Brown et al Diabetes Care (2021) Study in 241 participants with type 1 diabetes aged 6 to 70 years involving 2 weeks standard therapy followed by 3 months Omnipod® 5 use with SmartAdjust™ technology ©2023 Insulet Corporation. Omnipod, the Omnipod logo, Simplify Life and Podder are trademarks or registered trademarks of Insulet Corporation in the USA and other various jurisdictions. All rights reserved. Dexcom and Dexcom G6 are registered trademarks of Dexcom, Inc. and used with permission. All other trademarks are the property of their respective owners. The use of third party trademarks does not constitute an endorsement or imply a relationship or other affiliation. Insulet Netherlands BV Stadsplateau 7, 3521 AZ Utrecht, The Netherlands. INS-OHS-04-2023-00013 V1.0

# MILESTONE MOMENTS

To celebrate the breadth of our work to improve the lives of people living with diabetes, we reflect on pivotal moments in research, treatment, and people's personal journeys

## "You have to have the courage of your convictions"

**Dr Sheila Reith CBE, 84, from Stirling, is a trailblazer in the advancement of diabetes technology and care. She says:**

Throughout my career, I've had to think outside the box. When I went to medical school in 1956, only 10% of the places were saved for women. My Professor at University College London told me it wouldn't be enough to be as good as the men; I'd have to be better than them!

The idea for the insulin pen came to me in the late 1970s when I was trying to give my daughter, Fiona, her injection from a glass bottle and steel syringe in the toilets at a train station. It was such a palaver, and I thought there must be an easier way. I knew dentists used cartridges to give drugs and thought something similar might work for insulin.

But when I tried to get the insulin companies on board by myself, they were not interested. I approached Dr John Ireland with my idea, and together, we asked the Department of Medical Physics and Biomedical Engineering if there was an engineer

who could help us create the prototype. That's when Dr John Paton came on board – the pen was a team effort.

We had seven volunteers who were enthusiastic to try the pen and we were absolutely delighted when Diabetes UK funded 100 to trial in clinics around the UK. As an organisation, pushing research and raising awareness is vital.

The pens were overwhelmingly popular. They made it easier for people to have multiple injections a day. Therefore the basal bolus regimen was possible. Today, insulin pens are used by millions worldwide.

Blood glucose meters were another huge advance. But when they first became available, people had to self-fund the machine and the testing strips. At a Diabetes UK conference dinner, I managed to persuade the Minister for Health in Scotland to provide the strips on the NHS. You have to have the courage of your convictions.

When I came to Stirling, I worked at a small district hospital with no specialist staff or diabetes services. I persuaded Forth Valley Health Board that we needed a specialist diabetes centre with a diabetes specialist nurse (DSN).

Getting the centre up and running

was important to me, and I'm lucky the Healthcare Board listened. We created videos for people to borrow about testing and measuring their blood sugar. We realised people were struggling to understand the information given just by the nurse, so leaflets and videos really helped.

In the 1980s, we built one of the first computerised databases of all the people in the area with diabetes to make sure they were getting assessed regularly and called in for retinopathy screening.

Many weren't having any retinal screening, particularly those with type 2. It was important we improved care for all people with diabetes, not just the few who were referred to a hospital clinic.

The difficulties of what it's like to live with diabetes are not always appreciated. It's with you all day, every day. It's our job to encourage people to enjoy life, but seeing it firsthand with my daughter made me much more sympathetic.

It was a great surprise when my colleagues put me forward for the CBE. I've been retired for 20 years, but my patients still come up to me at the shops to say hello.

It's vital we keep pressing forward for access to things that help people avoid complications. >>





Pregnancy was challenging, but Nicola and baby AJ received extra support and care

## “With diabetes and pregnancy there are so many extra steps”

**Nicola McCallum, 34, from South Lanarkshire, has lived with type 2 diabetes for three years. She says:**

Being diagnosed with type 2 diabetes was a bit of a fright. Both my grandfathers had type 2, and my mum is a DSN. I think she went into ‘work mode’ when I told her. She was really supportive. She used to work at the clinic I attend and would find a way to come with me to appointments so that she could see her old pals.

I made changes to my diet, reducing my carb intake, but I wasn’t on any medication and living with the condition wasn’t particularly challenging. Only when I became pregnant were my eyes opened to how serious diabetes can be.

I knew that, because of my diabetes, there would be extra steps in my

pregnancy care, but I hadn’t considered what would be involved.

It was only at my first appointment with the consultant, where they talked me through everything, that I heard things like ‘high risk’, insulin, and lots of stuff I’d never heard before. I was pretty scared, thinking, ‘what if? What if?’

My blood sugar targets were really tight, and I really wanted to keep my levels as stable as possible. After a while, I was prescribed metformin, and about six months into my pregnancy, I started injecting insulin and used a FreeStyle Libre to monitor my blood sugars. That caused a lot of anxiety and worry because I was thinking about them constantly, and I felt like I was battling highs and lows. With diabetes and pregnancy, there are so many extra steps.

One thing that was nice about pregnancy with diabetes was all the extra scans to check the baby’s

growth. My partner, Alex, liked that too.

My healthcare team started talking about plans for the birth – an induction at 38 weeks – at quite an early stage.

Unfortunately, the baby was too comfy where he was! When the induction didn’t work, I was booked in for a planned C-section at 39 weeks.

I think the fact that Alexander James, ‘AJ’, was born a healthy 7lb 14oz, is a testament to the amazing care I had. He did end up in special care, but that was because I had to be put under for the section after the epidural didn’t work. AJ was affected by the anaesthetic. It was ironic that I’d had all

that extra care because of diabetes, but that wasn’t what ultimately caused the problem.

Diabetes is such an individual condition – no two people will have the same experiences. Pregnancy was challenging, but the care and support I received throughout was so reassuring.

**“Diabetes is individual – no two people will have the same experiences”**

## “You have to try to get through it together”

**Paul Armstrong, 53, is from Ipswich. His wife, Mel, has had type 1 since the age of six, and their son was diagnosed with type 1, aged eight**

I first discovered what diabetes was in the early days of dating Mel, when she had a hypo in my flat.

I knew she had diabetes, but I didn't know what it meant. It's very important to Mel that it doesn't stop her from doing anything. She's not different. She just has diabetes.

I learned a lot very quickly. Mel is very disciplined with managing her blood sugars, so she will sometimes go low. When she's really, really low, she gets cross with me. But she's still nice to everyone else! I don't panic or get stressed when she's low because that's the last thing she needs. You have to try to just get through it together, and we do try to find humour in it as well.

I think the FreeStyle Libre has changed things dramatically. I travel quite a lot with work, and when I'm away, I can receive alerts.

We've developed ways to cope with diabetes, but sometimes it gets tough. Mel's pregnancies with our son and daughter were challenging. It was quite

**“For us, it's not about rigid routines – it's about recognising the situation and responding appropriately”**

traumatic when our daughter was born with high blood sugar and had to stay in hospital for over a week. Sometimes, when it comes to diabetes, things just feel really unfair.

When our son, Robbie, developed symptoms of type 1, we caught it fairly

quickly. He was so thirsty he was drinking straight from the tap, and Mel said, ‘that's exactly what I did.’

Mel was devastated and blamed herself, although I know that type 1 isn't necessarily hereditary. But we knew what to do, and when we started going to groups with other parents of children with type 1, I think we were comparatively pretty relaxed about it. For us, it's not about rigid routines – it's about recognising the situation and responding appropriately.

For Mel and Robbie, diabetes never goes away. They can never turn it off. But Robbie can't ever say to Mel, ‘you don't understand’.

My dad died last October, aged 78. He'd had type 2 and Alzheimer's, and unfortunately, his heart just stopped.

During coronavirus, I'd been running

on the treadmill, then I did a 10k, then a half marathon, and decided to join the ballot for the London Marathon. I got the call telling me I'd made the Diabetes UK team the day Dad died, so it seemed like fate. I did the marathon in March, and I'm part of the Diabetes UK 2024 team too, so I suppose I'm officially a marathon runner now.

It was an amazing thing to be part of. The reception we received from the Diabetes UK team at the end made all the training on the winter mornings worth it. But the discipline I needed to run the marathon is nothing compared to what Mel and Robbie have to do every day for the rest of their lives.

■ **Support Paul in the 2024 London Marathon at: [justgiving.com/fundraising/paul-armstrong-2024](https://www.justgiving.com/fundraising/paul-armstrong-2024)**



**Teamwork: Paul and Mel have developed ways to cope with diabetes**

## “It is a relief not to have to prick my fingers all the time”

**Peter Ashby, 84, from Somerset, has lived with type 1 diabetes since 1972. He says:**

My motivation for joining the Army in October 1960 was that I was called up to do my National Service – if I hadn’t complied, I’d have found myself in prison! If I’d have been born two weeks later, I would have escaped National Service altogether. I think it worked out for the best, though.

In 1972 I was posted to Berlin, where I was attached to the Royal Military Police. I was 33 years old, married to Norma, and we had two daughters, Julie and Lynne.

That autumn, I started losing a lot of weight and was very thirsty all the time. When I described my thirst to a doctor at the medical centre, he suspected it could be diabetes. I remember being admitted to Berlin Military Hospital and watching the Munich Olympic Games on television from my hospital bed.

When I was discharged from hospital, Norma had a difficult time working out how much carbohydrate there was in everything I had to eat – it wasn’t easy, and she had a notebook full of information by the time she finished. With two small children to look after as well, she was kept very busy. I joined Diabetes UK because I wanted to know as much about diabetes as I could.

As the Army was mainly for young, fit soldiers, very little was known about diabetes. I was offered a medical discharge, but I had a family to support and was in no hurry to return to civilian life. I asked if there was any way I could stay.

At the time I had a clerical job, so I managed to convince them to give

Photography: Gemma Griffiths



**New tech – and reading about diabetes in Balance – has helped Peter**

me a chance. They did, although I think it would have been a different story if it had been a more active role. Over the next 11 years, the Army looked after me very well, arranging annual check-ups and generally being very supportive of my needs.

When I left the Army in 1983, I missed the way of life, but not as much as I expected. Norma missed it more than I did – she used to love packing our bags and moving to pastures new. We both love travelling and have been to Kenya, the USA, Russia and many other places. In terms of travelling with diabetes, moving between time zones is one of my biggest challenges.

Diabetes does not impact my life as much as it did when I used to have just two injections daily and could only

check how high my sugar was with a urine test. The introduction of insulin pens and the FreeStyle Libre 2 sensor were a huge help. It is a relief not to have to prick my fingers all the time.

The information I’ve gained over the years from Balance has also given me encouragement, from reading what other people with diabetes have achieved, to informing me of all the latest treatments and technologies. Today, I go for my annual check-ups and don’t have any significant problems. Most of all,

I have a great family who look after me, my wonderful wife, two great daughters who are always on hand to help, four lovely grandchildren, and a six-month-old great-granddaughter who makes me smile.

**“The information I’ve gained from Balance over the years has also given me encouragement”**

## "I'm a big believer in empowering people with diabetes"

**Professor Partha Kar, 49, from Portsmouth, is National Specialty Advisor, Diabetes with NHS England. He has been a Consultant in Diabetes and Endocrinology at Portsmouth Hospitals NHS Trust since 2008, and has helped to expand use of and access to technology in type 1. He says:**

I believe that if you have the right people behind you, then you can crack through any barrier. For every success I've had in my career, I had so many people with diabetes right behind me. It's so important to interact with the people you, for want of a better word, serve. Lots of clinicians and policy people shy away from that because they feel 'we know better'.

The guidance of two fabulous mentors, Tony Zalin and David Jenkins, led me to pick diabetes as a specialty. I liked the idea that you could be a guide to your patients and see their journey evolve over the years.

When I started working in diabetes in 2002, it was much more specialist-heavy. I don't think any of the newer drugs for type 2 diabetes were around at that point, and in type 1, technology was a very limited area.

Flash and continuous glucose monitoring for people with type 1 came into play around the time I started my national role in 2016. I've got a very simple philosophy in my life – what would I do if it was me, or my children, my parents, who live with this condition?

I thought, 'this is what I'd want', so I started to explore it.

I'm a big believer in empowering the person with diabetes. For me, this was a game-changer because it changed self-management. People could look at their own numbers, make their decisions, make their choices.

Innovations always come in the NHS, but one of the problems in diabetes care is the variation in what people are offered. So, making flash glucose monitoring part and parcel of standard care was a big moment.

Another milestone was when we showed what could be achieved with continuous glucose monitoring (CGM) in pregnancy. Research showed it made a big difference to mums and babies, so we brought in a policy and then we brought it into lives.

We've got one more to come, hopefully, with closed loop technology. I think that will become standard care for type 1 in the next five years.

Care for any type of diabetes relies on three planks, which are self-management, peer support, and access to trained professionals. Unfortunately, we just don't have enough trained professionals. So, technology and self-management is vital. Peer support is

also a massively untapped resource. Diabetes UK does some amazing work in that area.

When it comes to the future of type 2 diabetes, addressing deprivation is crucial. People talk about type 2 quite rightly being linked with obesity, which

is linked with deprivation.

With type 2, I'd like us to focus on how to help people who come from deprived backgrounds and strengthen primary care.

If you did those two things, you'd have improved

type 2 diabetes at scale.

One big thing I've learned as a leader is not to be afraid to challenge my fellow clinicians and systems. Because, at the end of the day, our job is to take care of people with diabetes. And if you haven't done that because of some 'bigger picture', then you haven't done your job.

My role requires me to have really good, structured plans and allies in place. I might be what you'd call the tip of the spear – you need a lot of other components to a spear to make it work. So, I'm thankful to Diabetes UK for all the support they've given me over the years. A lot of the success is owed to them.

■ Listen to Partha on our podcast, **Diabetes Discussions:** [diabetes.org.uk/bal-partha](https://diabetes.org.uk/bal-partha)

**"One thing I've learned as a leader is not to be afraid to challenge systems"**



**Professor Kar is thankful for our support**

# DIABETES MIGHT NOT DISCRIMINATE, BUT PEOPLE DO

## A new initiative offers tips and tools to tackle diabetes stigma

➔ Diabetes doesn't discriminate because it affects people of all shapes, sizes, ages and backgrounds. But people can discriminate by offering unwanted – and often hurtful – advice and opinions about someone's diet and lifestyle. So how can we address diabetes stigma? It starts with identifying, challenging and changing perspectives to improve the lives of people with diabetes.

In the UK, more than 5 million people live with diabetes<sup>2</sup> – a figure predicted to rise to 5.5 million by 2030<sup>3</sup>. New survey data from Abbott shows that 1 in 4 people with diabetes in the UK have directly experienced a negative throwaway comment about their condition, while 73% have seen negative commentary on social media, television and online<sup>4</sup>. Yet 79% of the UK population claim to have never witnessed diabetes stigma<sup>1</sup>.

This significant disconnect between the stigma experienced by people living with diabetes and the general public's lack of awareness of it suggests widespread unconscious bias towards those with diabetes. This can lead to negative effects on emotional wellbeing and health outcomes:

- 17% say it makes them feel isolated.
- 21% feel self-conscious about their condition.
- 24% believe others' opinions impact their ability to manage their condition<sup>1</sup>.

The survey also found that 83% of people with diabetes and 75% of the public say people in general don't know enough about this complex condition and need to be more educated about it. Common misconceptions include blaming diabetes on poor diet, sugar addiction, lifestyle choices or lack of exercise<sup>1</sup>.

### "Is that the easy one?"

This lack of understanding is



highlighted by Dan:

"Many people believe that there are only two types of diabetes. After I've explained that I live with type 1, I've had people ask me: 'Is that the easy one?'" There are many different types of diabetes, each with their own challenges, and none of them is easy.

"This underlines the challenges that everyone living with diabetes faces. I'd like people to understand that diabetes isn't self-inflicted, it is a chronic condition and isn't easy. Those seemingly harmless comments are not harmless at all."

**"Diabetes is a chronic condition and it isn't easy. Those seemingly harmless comments are not harmless at all"**

### "I'm made to feel like a pariah"



Ken's stigma story is equally insightful:

"On social media, my experience is that type 2 diabetes is ridiculed and not taken seriously. People with type 2 are not considered to really have diabetes as we can be 'cured' through the many 'diets' and interventions that people volunteer as truth.

"These comments make me feel like a pariah and that those of us with diabetes other than type 1 should not comment on diabetes."

### We must all work together to change perspectives

To address the key points raised in the survey, Abbott has developed the Let's Change Perspective campaign with expert support from the UK diabetes community. The campaign aims to explore elements of stigma faced by people with diabetes and provides helpful tools, including a new downloadable guide offering practical steps to help create better conversations around diabetes.\*

By coming together to confront unconscious bias and reduce the stigma around the condition, we can begin to change perspectives to improve the lives of people living with diabetes.

■ This feature is sponsored by Abbott  
Job ref: ADC-76586 (v1.0) 08/2023



Stigma can lead to negative effects on emotional wellbeing and health outcomes

## HOW YOU CAN BE A DIABETES ALLY

Whether you're living with diabetes or caring for someone who is, the most effective way to kick out stigma is to have empowering conversations about diabetes with friends, family or colleagues in the moment<sup>4</sup>.

### SOME TIPS INCLUDE:

- Talk to people about diabetes to help them understand what living with the condition is really like on a day-to-day basis.
- Don't assume the person knows their throwaway comments are offensive; they may not realise that what they're saying is hurtful.
- Be kind to yourself: Acknowledge and appreciate the hard work done by you to effectively manage your diabetes.

■ It's no one's business what you eat; tell others that you know what's best for you and your body.

■ Diabetes needn't get in the way of your social life – plan ahead to ensure you have everything you need and suggest social activities at times that work best for you.

■ Tell your line manager about your diabetes, so they will be better equipped to give you the support you need when you need it.

■ Find out more and download the **#LetsChangePerspective guide to empowering conversations about diabetes at: [letschangeerspective.abbott](https://letschangeerspective.abbott)**

## REFERENCES

- 1 Abbott Diabetes Care. Data on file. Survey among 1,500 participants in the UK, 2022. The survey was commissioned by Abbott and conducted by Opinion Health in August 2022. The study had 1,500 participants from the UK, including 500 people with diabetes and 1,000 members of general public.
- 2 Diabetes UK. Diabetes statistics <https://www.diabetes.org.uk/professionals/position-statements-reports/statistics> Last accessed: January 2023.
- 3 Diabetes UK (06 Oct 2021). 1-in-10 adults living with diabetes by 2030. Available at: [https://www.diabetes.org.uk/about\\_us/news/1-10-adults-living-diabetes-2030](https://www.diabetes.org.uk/about_us/news/1-10-adults-living-diabetes-2030). Last accessed: January 2023.
- 4 Valentine V. 2019. The most important thing we give to people is hope: Overcoming stigma in diabetes and obesity. ADA

Outstanding educator in diabetes award lecture. 33 (1): 89–94.

5 Stigma stories available at: [letschangeerspective.abbott](https://letschangeerspective.abbott)

### How many people in the UK have diabetes?

We estimate that more than five million people in the UK are living with diabetes, which is an all-time high. Our data shows that more 4.3 million people in the UK live with diabetes. Additionally, 850,000 people could be living with diabetes who are yet to be diagnosed. These registration figures for 2021-22 are up by 148,591 from 2020-2021<sup>2</sup>.

### 1-in-10 adults living with diabetes by 2030

Our prediction is based on analysis of statistics from Public Health England and The Association of Public Health Observatories. It means that as many as 1-in-10 UK adults could be living with diabetes within a decade<sup>3</sup>.

# 300TH ISSUE THEN AND NOW

To celebrate our anniversary, we caught up with some inspiring people from issues past

## Row with the flow

➔ When Olympic legend Sir Steve Redgrave appeared in *Balance* in 1998, he was recently diagnosed with type 2 diabetes and preparing for the Sydney Olympics. Today, he's retired from competitive sport, and raising awareness of the impact of testosterone deficiency

**Sir Steve says:** If you or your child has just been diagnosed and you Google 'diabetes', I will come up. I'm seen as a role model, and I feel it's almost a duty to help others. Obviously, the advice I give has to be based on my own experiences – no two people with diabetes are the same.

A lot of sportspeople, when they retire, find it difficult to adjust and find a new path. Fortunately, as my career ended in 2000, I was lucky to become involved in bringing the 2012 Olympics to London.

I turned 50 in 2012, and as the flame went out at the Paralympics closing ceremony, as with most retiring top sportsmen, a light also went out in my life. There was an emptiness and a loss.



I kept busy and carried on, but I was starting to feel a lack of purpose. I thought it was just down to the stage of life I was at, that everyone my age had that experience.

Recently, a friend talked to me about testosterone. The only thing I knew about it was that it's a banned drug in elite sports, and, as an athlete, you don't go anywhere near it.

I'm older now, but I'm still a strong, butch man, so I thought testosterone deficiency would have nothing to do

**"It took me several years before I realised I had depression"**

with my life. But I had my levels tested by the digital health company Ted's Health, and it showed I was deficient. The recommendation was to go onto testosterone replacement, which I decided to do. I'm hopeful this will help me with the problems I thought were due to the ageing process.

Diabetes likes routine, but I've never had routine as such as I rarely sleep through a night. My habit of watching TV and snacking when I can't sleep is



not good for my weight and, in turn, my diabetes management.

When you've been on a diet of 6,000-7,000-calories-a-day in a lifetime in sport you get used to eating whatever's put in front of you. Adjusting my diet after retirement was quite tough. Today, I use an insulin pump, and I'm taking a lot more insulin than I ever did because I'm not as active as I was. But I do go cycling when I can and play golf because exercise helps me hugely.

As an athlete, your performance is always being monitored. In the early days of having diabetes, I was injecting at least 10 times a day and testing my blood sugar up to 20 times. I'd plot my results, creating my own graphs. That's what continuous glucose monitors (CGMs) are doing now. It makes diabetes so much easier to manage. Athletes are much more in tune with their bodies, but it took me several years before I realised I had suffered from depression and was living with it and not talking about it. If you're a man around my age and have weight gain, tiredness, depression, and low libido, why not have a test to see what your testosterone levels are?

I think the stigma around diabetes has changed in this country, but it does annoy me when people ask what type of diabetes I have. There's been some debate about whether I have type 2 or type 1, but when I spoke to my consultant about it, he said, 'What does it matter? You're not going to treat your diabetes any differently.'

I think there is some stigma around type 2 being associated with certain lifestyle factors. I know from my experiences that you'll isolate yourself from people and will sometimes eat as a form of comfort. And there are so many risk factors for type 2. Crucially, a lot of the risk is often inherited. So, I'm sympathetic to the complexities around the condition.

**Sir Steve Redgrave is an ambassador for Ted's Health: [tedshealth.com](http://tedshealth.com)**

## Creating change

**→ Zoe Partington, 53, from Shropshire, is an artist, disability activist, curator, educator and writer who has lived with type 1 for 50 years. When we last spoke to Zoe in 1995, she was coming to terms with sight loss and taking part in a scheme to help people with disabilities develop management experience**



**Zoe says:** When I see parents of newly diagnosed children post on social media, I know it probably feels like the end of the world, but I wish they knew that it's not.

My experiences with diabetes care have been mixed. As a child, I wasn't really warned about diabetes complications, possibly because no one wanted to panic me.

When I moved to adult care, my diabetes consultant was amazing. But when I developed retinopathy in my 20s, one of the eye consultants I saw was so rude and horrible, I thought, 'I'd prefer to lose my sight than have to spend any more time with you.'

Fortunately, I then found an amazing consultant who didn't treat me like I was just another person to

tick off a list. He tried to find out what was going on in my life and how treatment would affect me.

I had what was then an experimental treatment using laser technology, which meant I didn't lose all of my sight. Afterwards, I postponed my studies in the history of architecture, art and design and started a management training programme for disabled people. There, I met 12 people, all with different disabilities, and we

worked as a team for two years in different organisations.

We all wanted to have a laugh and enjoy our lives. It all felt very positive, but we saw the irony and silliness in many of the organisations around their commitment to inclusion.

What I experienced really made me understand that, when it comes to disability, people need to learn so much. Many organisations have never thought about how a wheelchair user would function in their spaces. Or how a blind person might work in their environment. Or they could choose to install accessible software, but it doesn't occur to them to do that.

Throughout my career, I've met amazing disability arts activists who helped me gain the confidence to question and challenge things that are not working for disabled people. You can have focus groups feeding back to professionals, but in my





experience, they often just think you're a bunch of moany people. If you use art in a powerful, dramatic way, they take notice.

Dealing with ableism can be tough. I know that people with diabetes don't necessarily see themselves as disabled. But when you're told you can do what everyone else does, I feel that's a bit of a lie. If you have diabetes, you might need to do things in a different way, and there's nothing wrong with that. You don't have to 'fit in'. I think it's important to acknowledge that, while you might need to live a different life with diabetes, it might actually be a more interesting one.

I named one of my exhibitions *Tightcontrol*, in reference to the way

medical professionals kept obsessively saying 'tight control' to me. No one explained properly what it actually meant! So I got it printed on a t-shirt to wear to the clinic. It became my Twitter handle, and it's one of the big neon signs in my new show. One of my diabetes consultants asked to display it in the clinic.

I think my vision problems actually helped me develop my skills. I moved on to abstract art when I could no longer do fine detail in painting.

A friend recently composed a sound piece to accompany one of my works,



and I'd like to do more of that in future. Using sound to create more context makes it more interesting and opens it up to other audiences.

The disability training I deliver is about making people and organisations realise that, actually, they've created a world and a society that's inaccessible, and it's their

responsibility to change it, not mine. When you start teaching people with disabilities that, they begin to feel they can make change happen.

**Zoe's installation, *Decoding Difference*, has been selected for exhibition at London Design Biennale 2023.**

## Winning the Battle

**In 1999, Captain Duncan Ferguson described being diagnosed with type 2 shortly before he set off to serve in the Falklands War. But the battle wasn't quite over**

**Duncan says:** Diabetes demands discipline, and that is something I was well-versed in during my naval career.

In 1981, after my annual medical, I was diagnosed with type 2 diabetes. At that time, the Navy knew nothing about the condition, and the medics agreed to let me stay at sea. If I'd been diagnosed with type 1, I'd have been immediately medically discharged. I think I was given medication, and the Navy also insisted I lose weight by going on a 1,000-calorie-a-day diet for six weeks.

Six months later, Argentina invaded the Falklands, and we were sent to war.

The conflict lasted 57 days – I sometimes feel embarrassed by the interest still shown in such a short period of history, but the men I served with fought hard and courageously: 130



men in the naval service gave up their lives, and 257 were injured. To this day, I feel we owe them and their families a lasting debt.

During the conflict, I lost a lot of weight. That continued for a number of years. There was a time when I was really struggling. No matter how many pills I was given, my blood sugars were very difficult to manage. I started

taking insulin and tried to eat very little carbohydrate.

After the Falklands, I received a bravery award. I think because of that, my diabetes was somehow forgotten by my naval superiors.

After I left the Navy, I established a local support group near my home in Castle Douglas. That was great, and it taught me a lot about diabetes.

In 1992, I was told I had type 1 diabetes. All those years of living with the wrong diagnosis has left me with eyesight problems, but, in a way, I am grateful because if I'd been diagnosed with type 1 back in 1981, I'd have been discharged from the Navy immediately. What a different life I'd have had.

But I started to feel much better and more able to manage my blood sugars after my type 1 diagnosis.

I think keeping active, physically and mentally, is the key to staying in good health. I'm 83 and still running my family farm, Glenlair. It was once the home of James Clerk Maxwell, one of Scotland's greatest mathematicians and scientists. I take people on tours of the estate, and that all keeps me going.

WIN

A restful getaway  
in stunning  
West Yorkshire

# ROOM WITH A VIEW

➔ Classic Lodges is offering readers the chance to win a luxury one-night stay for two at Bagden Hall Hotel in West Yorkshire. This fantastic prize includes a glass of Lanson champagne on arrival, a delicious three-course dinner and breakfast the following morning.

Bagden Hall is a luxurious country house nestled between the bustling towns of Huddersfield and Wakefield, set within 40 acres of stunning parkland, offering panoramic views of West Yorkshire. The hotel combines period splendour with contemporary luxury that will help you feel right at home, making it the perfect place to relax and enjoy a West Yorkshire break.

Good food is at the heart of the hotel, with the team of chefs placing a great emphasis on creativity and flair, as well as a core focus on seasonal, locally sourced produce.

■ **To book a stay with Classic Lodges, please visit [classiclodges.co.uk/specialoffers](https://www.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 Bagden Hall hotel in West Yorkshire, and includes a three-course dinner in the evening and a full Yorkshire or continental breakfast the following morning. The prize must be booked via the Central Reservations line – 01257 238730 – is valid for six months following the competition closing, is subject to availability on selected dates, is not transferable and cannot be exchanged for a cash value. The closing date is December 4 2023. T&Cs for the giveaways, prize draws and offers that appear in Balance can be found at [diabetes.org.uk/bal-comp-terms](https://diabetes.org.uk/bal-comp-terms)



PRIZE

## LUXURY HOTEL STAY

### INCLUDES:

- A luxury one-night stay for two at Bagden Hall
- Three-course dinner and breakfast

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





# A HEALTHY SNACK

Our experts examine the health benefits of ‘activity snacking’ for people living with diabetes

➔ You may have heard the term, ‘sitting is the new smoking’. This refers to the health risks caused by our increasingly sedentary lifestyles. According to the NHS, many adults in the UK spend around nine hours a day sitting down. This includes watching TV, using a computer, reading, and travelling by car, bus or train, but does not include sleeping.

The link between illness and sitting first emerged in the 1950s when researchers found double-decker bus drivers were twice as likely to have heart attacks as their bus conductor colleagues. The drivers sat for 90% of their shifts,

while the conductors climbed about 600 stairs each working day.

Today, there is growing evidence that sitting down too much can be a risk to your health. It is thought to slow the metabolism – which affects our ability to regulate blood sugar and blood pressure and metabolise fat – and may cause weaker muscles and bones.

For some people, such as wheelchair users, sitting for prolonged periods is unavoidable. But regularly incorporating bite-sized bursts of physical activity into our day, including seated exercises for those with mobility problems, can have a real impact on our diabetes management

and overall health.

“The idea is that we break up long periods of sitting down and being sedentary with short bursts of physical activity – this is what we call ‘activity snacking’,” says our Senior Physical Activity Advisor, Neil Gibson.

“Our bodies are designed to move. Convenient, achievable chunks of activity – say, three minutes walking or other light-intensity exercise throughout the day – can help reverse the effects of sedentary lifestyles, get the blood flowing, muscles working and lower blood sugar levels. And it doesn’t require an expensive gym membership or taking



Short walks or light activity can help counter the effects of our increasingly sedentary lifestyles

**"Breaking up prolonged sitting with light-intensity activity is something that people can do irrespective of whether they currently exercise or not"**

lots of time out of your day."

Activity snacking can be really rewarding, particularly if you live with diabetes. A recent study we funded showed how it can help people with type 1 diabetes manage blood sugar levels. This builds on previous research

that proved how it can lower blood sugar levels and cut the risk of complications for people with type 2.

"Simply breaking up prolonged periods of time sitting with light-intensity activity can increase the amount of time spent with blood sugar levels in the target range," says Dr Matthew Campbell from the University of Sunderland, author of the latest study into the benefits of activity snacking for people living with type 1 diabetes.

"Importantly, this strategy doesn't seem to increase the risk of potentially dangerous blood sugar lows, which are a common occurrence with more

traditional types of physical activity and exercise. Breaking up prolonged sitting with light-intensity activity is something that people can do irrespective of whether they currently exercise or not."

### **Make activity manageable**

Activity snacking is something anyone can do – and everybody should do – even if you have problems with mobility. But it's crucial that you start small and ensure that any new activity regime is manageable. "It can be as easy or as hard as you like, but the key thing is that you can fit it in around everything else you have going on," says Neil.



“If you have a busy day at work, you could say to yourself that you will put in three minutes of jogging on the spot between each meeting. If you’re sitting for long periods watching TV, you could do short bursts in every advert break and even do upper body, chair-based exercises if you have difficulty moving.”

### How sitting affects our health

Even if you participate in regular physical activity, if you spend most of your day sitting at a desk, watching television, texting, or relaxing, these sedentary activities mean you may not be getting the full benefit from your efforts.

That’s why making sure we move regularly throughout the day is important to avoid being sedentary. “Even if you do the minimum 150 minutes of moderate exercise a week that the NHS advises for adults, if you’re sitting down for the rest of the day, you’ll benefit from activity snacking,” says Neil.

“Research has long shown that breaking up time spent sitting helps people living with or at risk of developing type 2 diabetes. The latest research also shows how it can help people with type 1.”

### The benefits of activity snacking

We know that for lots of people with diabetes, having hypos when doing different types of activity is a real worry.

“Fear of hypos is often a barrier to being active, because physical activity and insulin can both lower blood sugar,” explains Neil. “It can be difficult to

## ACTIVITY SNACKING - GIVE IT A GO!

No matter how fit you are, too much time sitting can still slow the metabolism and affect the body’s ability to regulate blood sugar and blood pressure levels and burn fat. So, everyone can benefit from activity snacking. Here’s how to get started.

### SIT AND SNACK

Activity snacking offers huge rewards for people who use wheelchairs or have difficulties getting around. Set a reminder on your phone or challenge yourself to complete sets of exercises during TV ad breaks. Arm and knee raises and foot rotations and taps are great chair-based exercises that can be made more challenging with the addition of weights. Download our free poster, ‘5 ways to move more while sitting down’, at: [diabetes.org.uk/bal-shop](http://diabetes.org.uk/bal-shop)

### STRETCH FOR SUCCESS

Stretching has many benefits, including promoting blood flow to the muscles, maintaining joint mobility and decreasing the risk of injury. Taking time out during the working day to stretch will help keep you feeling like a well-oiled machine and can also help ease stress.

### TAKE PART IN ONE OF OUR CHALLENGES

We run regular challenges to help people move more. Participants in our 100 Push Up Challenge did 100 daily push-ups in June, splitting them into manageable chunks and tailoring them to their fitness level – for example, by kneeling or standing and pushing off a wall.

### AVOID THE ‘EASY’ OPTION

One reason why people spend an average of nine hours a day sitting down is that technology has made our lives so much easier.

Physical jobs have been replaced with desk work, and to catch up with friends, you only need to go online, for example.

To stay healthy, avoid the easy options – take the stairs instead of a lift, walk rather than catching the bus or arrange a ‘walking meeting’ where you walk and talk. The benefits will soon rack up!

## GET MOVING

Our free guide to moving more is packed with information and inspiration to get you active. From advice about managing your blood sugar levels and building up motivation to move to ideas and examples of activities you can try from your very own home, it will support you through your journey to move more. Plus, there’s space for you to track your progress over 10 weeks and reflect on what you’re learning along the way. Also available to download. Visit: [diabetes.org.uk/bal-shop](http://diabetes.org.uk/bal-shop)



manage blood sugar levels when doing physical activity.

“But activity snacking does not seem to increase your risk of hypos or lower blood sugar to dangerous levels.”

### Step in the right direction

The University of Sunderland study found that people who broke up a seven-hour period of sitting with three-minute walks every 30 minutes spent 14% more time with their blood sugar

in range compared to when they sat for seven hours uninterrupted. Average blood sugar levels were 6.9mmol/l when activity snacking and 8.2mmol/l when sitting for seven hours straight.

“Building activity snacking into your day is a great way to help with fitness and health and manage your diabetes effectively,” says Neil.

“It can also form the first steps towards building confidence and taking part in more structured physical activity.”

# IN THE LOOP

**Rob Brown, who lives with type 1 diabetes, examines how hybrid closed loop systems can transform lives**

➔ People who live with type 1 diabetes can enjoy full, healthy and happy lives, but managing the condition day in, day out, can sometimes feel like an uphill battle. Research has shown that people who live with type 1 take an extra 180 health-related decisions a day. That's one every five minutes of the waking day.

These decisions are not to be taken lightly. People who have type 1 must inject insulin or use an insulin pump, judging the dosage themselves. Taking too little insulin can cause high blood sugar levels; too much can cause lows. Both can be dangerous.

Now many people living with type 1 in the UK have another option on the NHS: hybrid closed loop devices. This technology uses a continuous glucose monitor (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. So, what are the benefits? Are there any drawbacks? And who is eligible?



## AN EVIDENCE-BASED TREATMENT

The clinical benefits speak for themselves. A 2021 pilot rollout of hybrid closed loop devices by NHS England found that people using the therapy achieved an average increase of time with blood sugars in range (between 3.9 and 10 mmol/l) of 28.3% and a 1.7% reduction in HbA1c, a measure of average blood sugar levels over the previous two to three months.

“Another big element of the findings of this research was how hybrid closed loops can help ease the burden of having type 1 diabetes by taking away some of the decisions that people with the condition are used to making all the time,” explains our Senior Clinical Advisor, Jackie Higgins.

“Some people refer to hybrid closed loops as an ‘artificial pancreas’ because

## “Hybrid closed loops can help ease the burden of type 1 diabetes by taking away some of the decisions people are used to making all the time”

it does much of the work a pancreas would do – deciding how much insulin is needed for blood sugar to stay in range. But it’s important to manage people’s expectations. Hybrid closed loops can take care of a lot of the management of type 1, but it’s not a cure.”

Indeed, nothing beats the human pancreas when it comes to blood sugar management. It plays a key role in the digestive system by releasing enzymes to break down food in our guts, as well as providing just the right amount of insulin and glucagon to keep blood sugars stable.

Unlike the pancreas, people using a hybrid closed loop system need to tell it how many grams of carbohydrate they intend to consume before eating. These systems also need to be told before the wearer begins exercise so the target glucose and insulin dosage can be automatically adjusted to help avoid low blood sugar levels. Although most hybrid closed loop systems automatically deliver correction doses when blood sugar levels are going too high and halt insulin delivery when they are going low, things can still go awry. People misjudging carb content or the effect of different types of activity on blood sugar levels can still cause hypos and hyperts.

Pumps, CGMs, infusion sets and other looping paraphernalia also require changing, charging and maintenance. How much this entails

Words: Robert Brown. Photography: iStock

## PAUL'S STORY “Hybrid closed looping is all about the freedom it gives me”

With type 1 diabetes, there’s always that underlying fear of going to sleep and being woken up by paramedics in the middle of a hypo. Or not waking up at all. Since I have been hybrid closed looping, that fear no longer exists for me. It’s been a huge relief for me and my family.

Hybrid closed looping isn’t really about what my HbA1c is or how much time I am in range, it’s about the freedom it gives me. It allows me to focus on things without worrying if I am about to have a hypo or when I next need to eat. It means I can go to bed without fear and wake up in the

“Since I have been hybrid closed looping it’s been a huge relief for me and my family”

morning with a clear head because my blood sugar has been level all night.

I’ve had type 1 diabetes since July 1977, when I was five, and have been using hybrid closed loop systems since 2017. It’s just incredible how the technology has developed in that time and the freedom and headspace it has

given me. I am a great believer in how technology can transform the lives of people living with diabetes.

■ Paul is using the mylife

**YpsoPump insulin pump in conjunction with the mylife CamAPS FX app and Dexcom G6 continuous insulin monitor.**



varies from system to system. “It’s therefore important that people have the right training and support, so they have the confidence to hand over some of the management of their condition to a machine,” adds Jackie.

“So long as people get that support from the companies behind the technology and their healthcare teams, most find that it takes much of the stress and worry out of having type 1 yourself or having a child with the condition, with less time spent worrying about highs and lows and fewer nights with disturbed sleep.”

Despite this, access to hybrid closed loop therapy is still far from universal. At Diabetes UK, we believe everyone living with type 1 diabetes in this country should have access to this life-changing technology. This could mean longer, happier and more fulfilled lives for 400,000 people.

## FREQUENTLY ASKED QUESTIONS

### What is hybrid closed looping?

Hybrid closed loop systems allow a continuous glucose monitor (CGM) to ‘talk’ to an insulin pump. The system uses algorithms to calculate how much insulin is needed to keep blood glucose levels in range, which is automatically delivered via the pump.

### How does it work?

All type 1 diabetes treatments are in the form of loops. Take multiple daily injection (MDI) therapy: It requires you to measure your blood sugar, work out how much insulin you need, inject insulin and then let the hormone work its magic inside your body.

MDI could be described as an ‘open’ loop because it relies on user input. Hybrid closed looping is ‘hybrid’ because it requires some aspects, such as bolusing



for meals or adjusting dosage for exercise to be managed manually, and ‘closed’ because other aspects of the system are automated.

### Who's eligible?

That depends on where you live. In 2022, new guidance in Scotland – that healthcare providers should proactively discuss hybrid closed looping with all patients who have type 1 diabetes – led to the government allocating £14.6m to increase access. January saw the release of draft guidance recommending it for people with type 1 in England and Wales who have an HbA1c of 8% despite using an insulin pump, CGM or flash monitor.

Healthcare providers in Northern

## MARTIN'S STORY

“It’s freed up so much head space... but I still haven’t cracked pizza!”

It might look like something straight out of the 1970s, but my hybrid closed loop system – the Medtronic 780g pump with Guardian 4 sensors – has freed up so much head space that was previously filled with mundane decisions about diabetes like how much insulin do I need for that pizza, when do I need to bolus for it – it’s transformed my life.

I do a lot of exercise and find the Medtronic 780g’s temporary target setting, which raises the target blood glucose level to 8.4 mmol/l, works well. I just eat normally when I am walking or running and don’t bolus, and the pump just does its thing in the background. I also like that I can just detach and reconnect when I swim in the sea.

I’m going to push the limits of the 780g in January when I



take part in the Winter Spine Challenger, a 108-mile footrace along the Pennine Way. The important thing is to put it on a few hours before I start and make sure I let go and let the pump do its work. It’s going to be brutal, but I’m confident in the technology. But I still haven’t cracked pizza!

**Martin is using the Medtronic 780g with Guardian G4 sensors.**

Ireland have not yet received guidance.

Westminster is yet to approve draft guidance for England and Wales, although the tech is recommended for children under 12. Some healthcare providers in England and Wales already follow the draft guidance and are prescribing hybrid closed loop systems.

### What technology is available?

Three systems are available on the NHS: Medtronic 780g pump with smartGuard and Guardian 4 sensor; T:slim X2 pump with Control-IQ and Dexcom G6 sensor; the CamAPS FX Android app, which is compatible with YpsoPump, DANA Diabecare RS and DANA-i insulin pumps and Dexcom G6 and FreeStyle Libre 3 sensors. The Omnipod 5 system is likely to be approved later this year.

Find out more: [diabetes.org.uk/bal-closed-loop](https://diabetes.org.uk/bal-closed-loop)

# ALLEVIATING ANXIETY

Anxiety affects us all at some point in our lives, but it can feel even more overwhelming if you're living with diabetes. Here, Dr Rose Stewart, a Consultant Clinical Psychologist and Diabetes Psychology Lead at Betsi Cadwaladr University Health Board, shares her advice for managing diabetes-related anxiety.

➔ Diabetes isn't always predictable, and you can feel like you're doing everything 'right', but something still goes wrong. It's vital to remember that it's OK to have off days, to cry, to be frustrated and anxious. Feeling anxious at times is a normal part of life – and it's important to be kind and patient and not judge yourself about it.

And while living with a health condition like diabetes adds an emotional strain that can lead to feelings of loneliness, distress and burnout, it may be that your anxiety is completely unrelated to your diabetes, but dealing with a demanding health condition adds another level of stress.

Anxiety can affect people in many ways and support is at hand to help

## DR ROSE'S TIPS TO HELP MANAGE ANXIETY



■ **Digital interventions:** If you don't have time to wait for a therapist, NHS-approved apps like Calm or Headspace are really good.

If it's suitable for you, there's an online Cognitive Behavioural Therapy (CBT) programme called 'Silver Cloud'. You don't need to be referred, and it's available on the NHS.

■ **Active relaxing:** People with diabetes have to deal with more stress than the average person, so I strongly encourage 'active relaxing'. This includes practices like yoga, meditation, listening to relaxation tracks on YouTube or even your favourite music.

■ **Physical activity:** Being active doesn't have to mean running marathons. Being in a green space, ideally near water for 10 minutes a day, makes so much difference and can improve your mood and self-esteem.

■ **Grounding exercises:** We use the

'5,4,3,2,1' technique. If you're feeling overwhelmed or starting to panic, focus on five things you can see, four things you can hear, three things you can feel, two things you can smell and one thing you can taste. This brings your sensory experience down and really helps to calm you.

■ **Breathing out:** If you're having a panic attack, it's important to really breathe out like you're blowing up a balloon or blowing out a candle.



Being in a green space, near water, can lift your mood

## What is anxiety?

According to the mental health charity, Mind, 'anxiety' is a natural human response when we feel we are under threat. It can be experienced through our thoughts, feelings and physical sensations.

You can feel anxiety in the form of physical sensations like heart palpitations, shaky hands, stomach pains or an upset stomach. It can also manifest as upsetting thoughts, seeking reassurance, having panic attacks or worrying about other people and what they're thinking.

The causes of anxiety can vary. If you've experienced difficult events during childhood, these might affect your anxiety levels as you grow up and affect your mental wellbeing as an adult. Stresses at work, worrying about money or losing a loved one can also trigger anxiety later in life. You don't have to experience a traumatic event to have anxiety, and it might

come and go in waves depending on your situation or environment.

Certain things like alcohol, sugar or caffeine can play a part in heightening anxiety. Some people may drink alcohol if they feel anxious in social situations to alleviate feelings of nervousness.

But alcohol is a depressant and can actually increase your risk of feeling anxious or depressed.

Like diabetes, anxiety isn't a one-size-fits-all condition: it can affect people in vastly different ways. It's important not to compare yourself to others and remember that you're worthy of receiving support, whatever problems you're experiencing.

"It's important to recognise the unique stresses and demands diabetes causes. It's normal to feel anxiety some of the time, but when it gets out

of control and negatively affects your life, that's the time to consider seeking help. The classic question we ask when we're assessing for anxiety is, 'are you worrying about how much you're worrying'," says Rose.

"When you're first diagnosed it's very normal to feel anxiety, so it's important to talk to friends, family and seek peer support to help you manage. If anxiety is starting to negatively impact your life and you've felt anxious for three weeks or more, then it's time to ask for help."

## Number and flatline anxiety

Living with diabetes means dealing with a lot of numbers. Whether that's counting carbs, figuring out the correct insulin dose, reading your blood sugar or getting your HbA1c result, it can be really exhausting. We've heard people with diabetes sometimes feel like they're judged for their numbers at their appointments if they're not in range or haven't met their target. But those numbers are there to measure and help manage a health condition – not determine whether or not you're a good person or doing a good enough job with your diabetes.

Diabetes technology has so many benefits for people managing their diabetes. But having your data so visible all the time can add another

**"People with diabetes are 20% more likely than those without diabetes to have anxiety at some point in their life"**

level of anxiety for some people. You may get anxious if the lines on your glucose graph go out of range or if you see spikes throughout the day.

"Sometimes, people feel like they have to keep their line happy rather than themselves. So, think about whether having access to data that frequently works for you. Yes, it can be a useful tool, but if it's causing a new level of stress or anxiety, it's important to step back, look at the overall trends, and only check at important times of the day.



For example, before and after meals, before you drive somewhere, if you're exercising or feel under the weather," says Rose.

We know that sometimes diabetes just doesn't go your way, and there's nothing you can do to change that. And we know that sometimes diabetes gets overwhelming,

and you may slip with your management. Whether your numbers are perfect or not has no bearing on you as a person.

It may be that you could do with some more support from your healthcare team, or you just need to remind yourself that you tried your best and it's OK not to be perfect all the time.

**"An average of 37.1% of women and 29.9% of men reported high levels of anxiety in 2022/23"**

### Trauma and diabetes

Being diagnosed with a health condition like diabetes can be a traumatic event in itself, especially if your diagnosis involved diabetic ketoacidosis (DKA). If you've known people who have been ill from diabetes, who have passed away or experienced complications, those memories might appear when you're diagnosed or when you go to your appointments.

"When we think about trauma, we think about scary events like being in a war zone or a car crash," says Rose. "But a lot of people have experienced trauma purely by living with diabetes. For example, DKA or a serious hypo can be scary, potentially life-threatening events.

"Healthcare-induced trauma is where people have felt shouted at, judged or even bullied by their healthcare team. Some people living with diabetes may have experienced a healthcare-induced trauma, and the experience has stayed with them. They might get so anxious in the run-up to appointments that they'll not want to go or they'll be in the waiting room

shaking and sweating. By the time they talk with their healthcare team, it's likely they aren't taking in the information, or they might feel predisposed to feeling criticised and therefore shut down.

"Events like feeling stigmatised or picked on at school, losing your job or a relationship breakdown because of your diabetes can also trigger trauma. If you had a very critical upbringing and you check your blood sugars, and they're out of range, you might hear that critical voice in your head.

As healthcare professionals working in diabetes services, we need to recognise that people may have certain responses because of trauma."

## JAMES'S STORY

**James Baillie, 32, from Oxford, has lived with type 1 for 11 years:**

I was initially diagnosed with type 2 diabetes after displaying the common symptoms – losing weight and having extreme thirst. However, it was later confirmed to be type 1 after the tablets weren't helping, and I began insulin.

One year, at a retinopathy appointment, fluid build-up was detected in my left eye. I was told I needed treatment for diabetic macular oedema, which involves injections into your eye. I was really scared about the actual injections and the thought of going blind. I'd get anxious and worked up before every appointment and start pacing. And I'd have nightmares and wouldn't sleep well. I think my family could sense a change in me, as I was on edge and quieter than usual. I was as anxious with the last dose as the first – it just never got any easier, but I did it for the good of my health. I don't like to talk about

how I'm feeling, so it was a lot to deal with alone. I do worry about complications and have all these thoughts about my eyesight and my legs. My dad passed away at a young age from type 2 diabetes complications, and that plays on my mind. It's hard to deal with those worries along with everyday life things like the cost of living and moving house. But knowing there's support online and having services like the Diabetes UK Helpline helps.



### Hypo anxiety

Hypo anxiety is when you're worried your blood sugars will go too low. One study found that 25% of people with diabetes reported that worrying about hypos was a serious problem for them. It's completely understandable to

be anxious about the thought of having a hypo, as they can be really distressing.

"Sometimes the symptoms of anxiety and hypos can be very similar, and it can be difficult to work out which is which," says Rose.

"So, always check if you start feeling hypo and practise relaxation skills to help manage any anxiety you may be feeling. Your healthcare team or a therapist can also offer tips and coping strategies."

**"For people living with type 1 diabetes, it was reported that one in six are affected by moderate to severe anxiety"**



# OUR GUIDE TO GOOD FOOT HEALTH

## IMPORTANT

If you've lost any sensation in your feet, speak with your healthcare team as you may need help from a podiatrist.

## Our expert, Esther Walden, explains how to take care of your feet and prevent problems developing



Raised blood sugar levels can affect both the circulation and nerves to your feet. This can lead to you them getting less blood supply and can damage their sensation, which is called peripheral sensory neuropathy. When this happens, it can mean you may not notice if you damage your feet, and you may have problems with cuts and sores healing. In the worst cases, complications with your feet can lead to an amputation.

The good news is that understanding how diabetes affects feet and checking them regularly can help you avoid developing foot problems.

You should have a foot check at least once a year, but this might only be once every other year if you live in Scotland and have been assessed as being at low risk for foot complications. This should be done by a member of your healthcare team. If you haven't had a foot check in the last year, ask your nurse or GP to arrange an appointment.

## LOOKING AFTER YOUR FEET

- Check your feet every day.
- Take off your shoes and socks.
- Touch both feet and check their temperature. They should both feel the same and not be too cold or hot.
- Look at your feet and see if there are any thick, hard areas of skin (calluses), blisters or scabs, or any changes in shape or colour.
- Check in between your toes for any dry or flaky skin. Look at your toenails to make sure they're not too long and not digging into the skin.
- Use a mirror on the floor to help you check the bottoms of your feet. Or ask someone to help you check.



## BEST PRACTICE

### Try to manage your blood sugar levels, cholesterol and blood pressure

Keeping these within your target ranges will help prevent damage to your feet. We've got lots of information to help you manage your blood pressure, cholesterol and know your blood sugar levels on our website: [diabetes.org.uk/bal-blood-pressure](https://diabetes.org.uk/bal-blood-pressure)

### If you smoke, stop

Smoking can damage blood vessels, making it harder for blood to circulate freely and foot problems more likely. Your healthcare team can support you to stop smoking.

### Eat well and be active

Keeping active can help you manage your diabetes and improve blood flow, reducing your risk of serious foot complications. If you're worried about what activity to choose, speak to your healthcare team. A dietitian can help you understand what to eat and how food affects you.

### Take care cutting nails

Piercing the skin by mistake can lead to other injuries. When you cut your toenails:

- Cut them often but not too short or down the side, as this can lead to ingrown toenails.
- Trim with nail clippers and then use an emery board to file corners.
- Clean your nails gently with a nail brush.

### Wash and dry your feet daily

This is a simple way to prevent infection. Use soap and warm water, but always check the temperature before you put your feet in. Don't soak your feet, as this makes the skin soggy and more likely to get damaged.

### Avoid pedicures

These are not recommended for people with diabetes, as they can

accidentally damage feet. They should be avoided by anyone with altered or limited feeling, or any wound, sores or cuts on their feet.

### Make sure footwear fits

If your shoes or socks are too tight, too loose or rub, then don't wear them. Shoes that don't fit well, even those that feel comfortable, can cause all sorts of problems. As can socks with holes, old innersoles, or thick seams.

### Choose footwear carefully

A registered podiatrist can advise on fit or style. There are many services that can help, like the Society of Chiropractors and Podiatrists, the Disabled Living Foundation, and the Society of Shoe Fitters. It's good to buy shoes that:

- Are broad fitting.
- Have a deep and rounded toe area.
- Are flat or low heeled.
- Are fastened by a lace or buckle to stop your feet sliding around.

### Moisturise every day

A urea-based emollient cream will help keep your skin healthy. Don't put cream or talcum powder between your toes, as this can cause problems.

### Don't use blades or corn plasters

These could damage your skin. Pumice stones can help with tough skin, but use with care. If you need help with corns, verrucas or other skin problems, speak with a podiatrist.

### Get expert advice

If you notice an issue, get it seen as soon as you can. If you're referred to a foot specialist or foot protection service, don't be afraid to ask questions. The more you know, the more you can monitor any changes in your feet.



## CHARCOT FOOT

This is one of the most serious foot complications, but the more you know about Charcot foot and its symptoms, the earlier you can get treatment.

If you have neuropathy in your feet, you may not notice any damage to them, such as injuries or broken bones. You may be able to continue walking on your affected foot without realising any changes or feeling pain. But as you put pressure on it, the bone and joints can start to change shape. This can alter the shape of your entire foot and put other joints at risk.

Once you have a misshapen foot, you may also be at a greater risk of developing a foot ulcer. In serious cases of Charcot foot, you may need to have an amputation.

If you notice any of these symptoms, take the weight off that foot immediately and urgently contact your doctor or healthcare team:

- Swelling.
- The affected foot feels warmer than the other.
- Change in foot colour.
- Change in foot shape.

### Treatment for Charcot foot

Non-surgical treatment involves keeping the foot as still as possible in a plaster cast or a protective boot. The process can take several months or longer, depending on your individual diagnosis. You may also be given custom shoes after the treatment to keep your foot protected and prevent a foot ulcer from developing.

If non-surgical treatment is not an option, you may need surgery. Your healthcare team can talk you through the risks and benefits of surgery.



### How we've supported footcare

In 1981 we helped set up the UK's first Diabetic Foot Clinic at King's College Hospital, London, with Prof Mike Edmonds. It brought a specialist team of podiatrists, nurses, orthotists, surgeons and physicians together under one roof. After just three years, the number of major amputations at the hospital had halved.

Since then, we've campaigned for further improvements to footcare and worked with hospitals and NHS managers to make sure they have multidisciplinary footcare teams ready to stop an ulcer from becoming an amputation.

### Bioceramics for Charcot foot

Synthetic materials that can be substituted in the place of real bone – known as bioceramics – have been used to heal fractures in the backbone. Dr Nina Petrova and her team at King's College London investigated if this could also encourage healing in people with Charcot foot fractures. Alongside small improvements to the healing process, the team developed a novel way to assess the health of the bones in Charcot foot. This will help to make sure people with diabetes get the best care they need.

### Chilli to treat chronic foot pain

Prof Praveen Anand and his team at Imperial College London investigated if a skin patch that uses Capsaicin – the ingredient that gives chillis their fiery kick – can help treat foot pain and potentially reverse nerve damage in people with diabetes. Those treated with the capsaicin patch reported significant reductions in pain and appeared to have new nerves starting to grow back. These results bring us closer to understanding how nerve damage in the feet caused by diabetes can be reversed.

■ Find out more about the footcare research we've funded at: [diabetes.org.uk/bal-feet](https://diabetes.org.uk/bal-feet)

## MEGAN'S STORY

MEGAN DAVIES, 56, from Gloucestershire, has lived with type 1 for 45 years. She says:



When I developed Charcot foot in 1997, it happened quickly and dramatically. Out of the blue, I got a hot, swollen foot that I couldn't put on the ground.

I didn't know about Charcot foot. As a child, I'd been told vaguely to look out for foot problems, and I occasionally saw older people with an amputation in the diabetes clinic waiting room. But I didn't connect them with my own situation.

At A&E, a doctor told me I'd sprained my foot. I insisted I hadn't injured myself, but I was told it would settle down and was sent away. Knowing what I know now, I feel quite sad about that.

Two days later, my foot collapsed. All my metatarsal bones fractured, and my arch collapsed.

I heard 'Charcot foot' for the first time when an orthopaedic consultant assessed me. It still didn't mean

anything to me, but the timing was devastating. I'd just recovered some of my sight, having lost my vision for about a year, and was trying to get going with my life again.

I was in a cast for nine months and when it came off, my ankle collapsed, so I was immediately back in one.

Over the years, I've had four major operations to fuse my foot to my leg, but surgery hasn't done the job.

Today, I'm in a cast, and I use crutches. I manage, but I've been told my only surgical option now is a below-the-knee amputation. I'm not ready to proceed with that at the moment.

Charcot foot is quite a lonely complication of diabetes – not many people have it.

My advice to anyone reading is to find out about all the potential foot complications and be super vigilant of your feet. If you ever find that your feet are hot and swollen, seek help urgently.

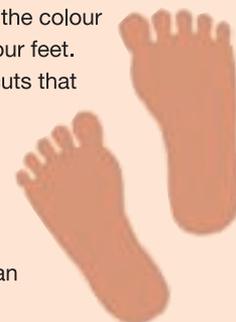
## SIGNS OF FOOT PROBLEMS

Contact your GP as soon as possible if you notice:

- A tingling sensation or numbness.
- Burning pain.
- A dull ache.
- Smooth, shiny skin on your feet.
- Hair loss on your legs and feet.
- Loss of feeling in your feet or legs.
- Swollen feet.
- Your feet aren't sweating.
- Wounds or sores that don't heal.
- Cramp in your calves when resting or walking.

Take the weight off your feet and see your doctor, podiatrist or nurse urgently, or go to your local A&E if you notice:

- Changes in the colour or shape of your feet.
- Blisters or cuts that you see but don't feel.
- Cold or hot feet.
- A bad smell coming from an open wound.



## HELP AND SUPPORT

Call our helpline on 0345 123 2399. You'll be able to speak to a highly trained advisor.

### Visit our forum

There are other people with diabetes who have had foot problems,

including Charcot foot, and reaching out to them can be a great help.

- [diabetes.org.uk/bal-forum](https://diabetes.org.uk/bal-forum) Watch our guide to checking your feet:
- [diabetes.org.uk/bal-feet](https://diabetes.org.uk/bal-feet)



### HAT'S OFF

**Diabetes UK beanie hat, £9.99**  
**Diabetes UK bobble hat, £14.50**

▼ Our beanie and bobble hats are the perfect way to stay warm, whether you're spending your valued time fundraising for us or on your daily dog walk. Feel proud standing out from the crowd with these bold and cheerful designs.



# WEAR IT WELL

Step out in style and raise awareness of our cause with the clothing range from our shop: [diabetes.org.uk/bal-shop](https://diabetes.org.uk/bal-shop)



### GO BANDANAS

**Diabetes UK dog bandana, £5.99**

▲ Support our 'paws' with this funky dog bandana that easily slides onto collars up to 40mm wide.

### THAT'S A WRAP

**Diabetes UK scarf, £13.75**

◀ Keep cosy by wrapping up in this fun and bright scarf in our signature blue and orange colours.



### GOOD IN THE HOOD

**Diabetes UK hoodie, £31**

▲ Our dark blue hoodie with contrasting orange drawstrings is a great way to help support and raise awareness of our cause.

### PEDAL POWER

**Diabetes UK cycle jersey, £29.99**

▼ This short-sleeved full zip cycle jersey is specially designed to wick away moisture, with three back pockets to keep diabetes supplies handy.



### TO A TEE

**Diabetes UK adults t-shirt, £7.99**

▲ Our unisex t-shirt comes in our signature light blue, sporting our motto, 'Diabetes is Relentless. So are We'.

# A HAPPY, HEALTHY DIWALI



Feasting with loved ones is a tradition at the

heart of the festival of lights, which takes place in November. Dietitian Azmina Govindji shares her top tips for managing diabetes during the festivities



➔ For many Hindus, Sikhs and Jains, Diwali is one of the most important dates in the calendar, and everyone is invited to join the celebrations.

It's a time for religious rituals and sharing traditional stories. It's also an opportunity to spruce up the home and enjoy times with family and friends, exchanging gifts and eating together.

But with traditional festival foods often being high in saturated fat, salt and sugar, it's important to think carefully about how you approach it. If you're living with diabetes, you don't have to miss out if you plan your day's meals in advance and eat in moderation.

"No Diwali celebration is complete without platefuls of burfi, besan, ladoo, halwa and other mithai," says dietitian Azmina Govindji of Azmina Nutrition.

"Eating small amounts of sweet treats on an occasion is fine, but the festivities during Diwali can last for several days. So it makes sense to find other ways to bring sweetness into your celebrations.

"The key is to plan ahead. It's possible to make your own mithai using lower-fat milk, natural sweeteners like dried fruit and dates, and olive oil or lower-fat spread in place of ghee.

"And, if you're hosting your own Diwali, why not treat your guests to delicious, healthier dishes? Try a tandoori platter of roasted corn on the cob, peppers, tomatoes, roasted paneer, grilled fish and chargrilled tandoori chicken."



## AZMINA'S TIPS FOR A HEALTHIER DIWALI:

**1** Throughout the day, it's best to eat healthier foods such as fruit and vegetables, wholegrain basmati rice, chickpeas and dhal. These types of foods can help keep your blood sugar levels more stable – but keep an eye on your portions. Remember that tropical fruits like mango and pineapple can be higher in sugar than fruits such as berries, apples and pears.

**2** If we're eating more sweet foods than usual, our blood sugar levels can rise, making us feel thirsty, tired and needing to pee more often. Watch out for these signs and make sure you stay well hydrated with plain water. Avoid sugary drinks or fruit juices as these will raise your blood sugar and could make you feel thirstier.

**3** If you monitor your sugar levels, test more during the festivities to make sure they don't get too high.

**4** Use vegetable oil instead of ghee, replace salt with spices and herbs, and swap sugar with artificial sweeteners.

**5** Make a selection of salads such as avocado salad, tomato and onion salad or cucumber salad. Offer a street food experience with spicy soya sticks, chana masala chaat, oat tikki and rajma tikki (use a non-stick pan). Paneer is full-fat, so try using cubes of tofu instead.

**6** Avoid skipping meals for one indulgent Diwali meal. Continue to eat regularly throughout the day to help keep your blood sugar steady.

**7** Staying active will help you to manage your blood sugar levels. Work off those extra calories by enjoying some garba or bhangra dancing.

**8** Try lassi as a refreshing drink – simply whisk together yogurt and water, and add some cumin seeds for a savoury flavour.



**9** Try higher fibre snacks like roasted chana or plain, homemade popcorn.

**10** Popular flavours such as cardamom, cinnamon, rose water, saffron and nutmeg are great aromas in the kitchen and in your special occasion dishes. Use these as much as you like, as these have no effect on your blood sugar, cholesterol or blood pressure.

**11** Be careful of extra sugars in your food. Mithai and halwa often include jaggery or gur, sweetened condensed milk, honey, syrup and molasses, which are all high in sugar. Milk-based puddings such as kheer and payasam are also traditionally made with these ingredients. Some desserts are sweetened with mango pulp or fruit juice – these are also types of free (added) sugars. Using a granulated sugar-free sweetener instead will add sweetness without extra carbohydrates, so your blood sugar levels won't rise as much.

# Azmina's date laddoo

Makes 10 | Prep: 20 mins

VEGAN

- 30g almonds
- 30g cornflakes
- 60g cashew nuts
- 3tsp flaxseeds (golden linseeds)
- 3tsp sesame seeds
- ½tsp cardamom powder (optional)
- 12 dried dates
- 1tsp pistachio nuts, ground

**1** Toast the almonds in a dry pan for about 5 minutes over a medium heat. Set aside to cool.

**2** Toast the cashew nuts over a medium heat for about 2–3 minutes. Allow to cool.

**3** Grind the cornflakes until they look like breadcrumbs. Transfer to a bowl large enough to hold all the ingredients.

**4** Pulse the toasted almonds in a grinder or food processor until powdery. Do not over blitz as they will turn into almond butter. Add them to the cornflakes.

**5** Roughly chop the toasted cashews and add to the almond and cornflake mix.

**6** Roast the flaxseeds, sesame seeds and cardamom powder for about 30 seconds till they pop. Set aside to cool.

**7** Meanwhile, remove the stones and chop the dates into small pieces. Add to the bowl of roasted nuts.

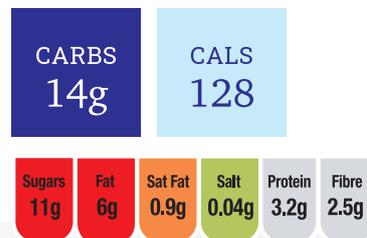
**8** Pulse or crush the seeds and mix with the date and cashew mixture while the seeds are still warm from grinding.

**9** Work the mixture with your hands until the ingredients are combined. Form into 10 ball shapes.

**10** Dip each ball into the ground pistachios and serve.

For more of Azmina's recipes, visit: [azminanutrition.com](http://azminanutrition.com)

PER 33G SERVING



0 portion of fruit and veg



**12** If you adapt a recipe using sweeteners instead of added sugars, check the sweetener brand to help you work out the proper substitution ratio. Start with less and adjust gradually.

**13** Don't worry too much if you have one or two high glucose readings. This shouldn't affect your long-term diabetes management, but try to avoid repeated high readings.

**14** Reduce the total calorie and saturated fat content of your puddings – try swapping whole milk for semi-skimmed and reducing the amount of ghee added if possible.

**15** If friends or family are planning to bring you indulgent gifts, suggest decorative candles, fragrant incense, personal care gift sets, home décor items, and festive accessories.

**16** Keep fried and sweet foods to a minimum. Cut up mithai into smaller amounts and try baking or using an air fryer instead of deep frying.

**17** Keep in mind, drinking alcohol interferes with your blood sugar levels and can make hypos more likely.

**300TH  
ISSUE**

# Let's celebrate

To mark Balance's special birthday, our expert nutritionists have created an array of healthy, hearty party foods



# Crunchy Asian-style coleslaw

Serves 6 | Prep: 15 mins |  
Cook: None

VEGAN

## FOR THE DRESSING

- 2tsp reduced-salt soy sauce
- 1tsp toasted sesame oil
- 1tbsp white wine vinegar
- Finely grated rind and juice of 1 small orange

## FOR THE SALAD

- 200g very thinly shredded cored green sweetheart cabbage
- 200g very thinly shredded cored red cabbage
- 2 carrots (about 200g), peeled and thinly shredded
- 150g mangetout, shredded lengthways
- 1 yellow pepper, deseeded, cored and thinly sliced
- 4 spring onions, trimmed and finely chopped
- Fresh coriander leaves to garnish
- 1 large red chilli, deseeded and finely chopped (optional)

1 Place the dressing ingredients into a jam jar and shake well to combine. Chill until ready to use.

2 In a large bowl, mix together both cabbages, carrots, mangetout, pepper and spring onions.

3 Drizzle over the dressing just before serving and toss well to combine. Scatter over the coriander leaves and serve.

PER SERVING 186g

CARBS  
8.8g

CALS  
66

Sugars	Fat	Sat Fat	Salt	Protein	Fibre
7.5g	<0.5g	<0.1g	0.19g	3g	5.1g

2 portions of fruit and veg

1. Spicy chicken fillets with chill'in dip.
2. Asian-style coleslaw.
3. Oven-baked turkey Scotch eggs.
4. Bang bang cauliflower.
5. Veggie rice paper rolls.
6. Mini salmon fishcakes.
7. Mackerel pâté.
8. Ginger and lime pudding.

# Bang bang cauliflower

Serves 4 | Prep: 20 mins |  
Cook: 20-25 mins

VEGETARIAN

## FOR THE CAULIFLOWER

- 200ml skimmed milk (or unsweetened dairy-free milk of your choice)
- 125g wholemeal plain flour
- 1tsp sweet smoked paprika
- 1tsp garlic granules
- 1tsp onion granules
- 1 large cauliflower, about 700g after being trimmed and cut into florets
- 100g Panko breadcrumbs
- Low-calorie cooking spray – about 6 pumps
- 4 spring onions, thinly sliced
- 1 red chilli, deseeded and finely chopped
- 1tbsp toasted sesame seeds
- Fresh coriander leaves to garnish

## FOR THE SAUCE

- 125ml plain natural yogurt (or unsweetened dairy-free yogurt of your choice)
- 1tbsp sriracha

1 Preheat the oven to 220°C/200°C fan oven/gas 7. In a large bowl, beat together the milk, flour, paprika, garlic granules and onion granules to make

a smooth batter. Toss in the cauliflower and make sure each floret is well-coated in the mixture.

2 Spread the breadcrumbs onto a plate and line a baking tray with non-stick baking paper. Using a fork, lift the cauliflower out of the batter and tap on the side of the bowl to remove any excess, then drop into the breadcrumbs and roll until covered. Place on the baking tray. Repeat until all the florets are covered in batter and breadcrumbs. Spray with a little low-calorie cooking spray – about 6 pumps – and bake for 20–25 mins, shaking the pan occasionally until crisp and golden.

3 Meanwhile, mix together all the sauce ingredients and chill until ready to serve.

4 Pile the crispy cauliflower florets onto a serving plate and scatter with the spring onions, chilli, sesame seeds and coriander and serve alongside the sauce.

5 Dip the florets into the sauce, then into the coriander mixture, and enjoy!

PER SERVING 315g

CARBS 32.7g	CALS 259
----------------	-------------

Sugars 9.6g	Fat 5.6g	Sat Fat 1.6g	Salt 0.21g	Protein 15.2g	Fibre 8.7g
----------------	-------------	-----------------	---------------	------------------	---------------

2 portions of fruit and veg



# Spicy oven-baked chicken fillets with chill'in dip

Serves 4 | Prep: 10 mins plus marinating time | Cook: 20 mins

DAIRY-FREE

## 'AT RISK'

Infants, children, pregnant women, the elderly and those who are unwell should avoid eating ready-to-eat cold-smoked or cured fish.

## FOR THE SPICY CHICKEN FILLETS

- 3 garlic cloves, crushed
- 1tbsp paprika
- ½ tsp coarse black pepper
- 1tbsp (15ml) Worcestershire sauce
- 2 red chillies, deseeded and finely chopped
- 1tbsp white wine vinegar
- 500g skinless mini chicken fillets

## FOR THE CHILL'IN DIP

- 200g plain Alpro soya yogurt
- ¾ tsp garlic powder
- ½ tsp onion powder
- ½ tsp dried dill
- Large pinch cayenne pepper
- 2tbsp snipped chives
- Fresh lemon juice to taste





### COOK'S TIP

You can also chargrill these fillets. Heat a chargrill pan until smoking, then cook for 3–4 mins on each side until pleasantly charred and cooked through with no pink meat in the middle.

# Oven-baked turkey Scotch eggs

Makes 6 | Prep: 20 mins |  
Cook: 26 mins

DAIRY-FREE

- 8 medium eggs
- 500g lean 2% fat turkey mince
- 1 heaped tsp Chinese 5 spice
- 1tsp coarsely ground black pepper
- 4tbsp finely chopped fresh coriander leaves and stalks
- 4 spring onions, trimmed and finely chopped
- 2tbsp plain flour
- 75g golden breadcrumbs
- 1tsp nigella seeds
- Low-calorie cooking spray – about 6 pumps

equal-sized pieces. Shape each piece into a circle about 12cm wide. Place a cooked egg in the centre and mould the mixture around the egg to enclose completely. Repeat with the remaining turkey mixture and cooked eggs.

**3** Put the flour into a bowl and beat the remaining eggs in a separate bowl. Now mix the breadcrumbs with the nigella seeds and place in a third bowl. Dust a turkey-wrapped egg with flour, then dip into the beaten egg and then into the breadcrumbs to coat completely. Repeat with the remaining flour, beaten egg and breadcrumbs.

**4** Arrange the coated eggs well-spaced apart on a baking tray. Spray each egg once with low-calorie spray and bake for 20 mins until golden brown. Serve warm or allow to cool completely. After cooling, keep them in the fridge and eat within two days.

- 1** In a large bowl, mix together the garlic, paprika, black pepper, Worcestershire sauce, chillies, vinegar and 2tbsp water. Tip in the chicken fillets and toss well to cover in the marinade. Cover with clingfilm and chill for 2 hrs or overnight if you have time.
- 2** Mix together all the dip ingredients and season with freshly ground black pepper and fresh lemon juice to taste. Chill until ready to serve.
- 3** Preheat the oven to 220°C/200°C fan oven/gas 7. Spread the chicken into a large roasting tray in a single layer. Roast for 15–20 mins until the chicken is steaming hot and cooked through – check there is no pink meat in the middle.
- 4** Serve the chicken fillets with the chill'in dip, crudité's and a mixed green salad.

\*Excludes serving suggestion

PER SERVING 204g

<b>CARBS</b> 3.6g	<b>CALS</b> 178
----------------------	--------------------

Sugars 2.8g	Fat 2.9g	Sat Fat 0.6g	Salt 0.39g	Protein 32.9g	Fibre 2.5g
----------------	-------------	-----------------	---------------	------------------	---------------

0 portions of fruit and veg

- 1** Preheat the oven to 200°C/180°C fan oven/gas 6. Bring a large pan of water to the boil, carefully add 6 of the eggs and cook for 6 mins. Drain and cool immediately under cold running water, then shell and set aside.
- 2** In a large bowl, mix together the turkey mince, Chinese 5 spice, black pepper, coriander and spring onions and stir well to combine. Divide the mixture into 6

PER SERVING 195g

<b>CARBS</b> 11.7g	<b>CALS</b> 278
-----------------------	--------------------

Sugars <0.5g	Fat 8.6g	Sat Fat 2.5g	Salt 0.61g	Protein 37.8g	Fibre 1.3g
-----------------	-------------	-----------------	---------------	------------------	---------------

0 portions of fruit and veg



# Mackerel pâté

Serves 4 | Prep: 10 mins  
| Cook: None

- 150g peppered smoked mackerel fillets
- Finely grated zest and juice of ½ small lemon
- 150g fat-free quark
- 2tsp horseradish sauce
- 4 radishes, trimmed and finely chopped
- 2tbsp fresh chopped dill



1 Remove the skins from the mackerel fillets and discard. Break the flesh into a large bowl. Stir in the lemon zest and juice, quark and horseradish sauce and

mash with a fork until well combined. Stir in half the radishes and dill.  
2 Spoon into individual serving dishes and scatter with the remaining radishes and dill.

\*Excludes serving suggestion  
PER SERVING 89g

CARBS	CALS
1.7g	147

Sugars	Fat	Sat Fat	Salt	Protein	Fibre
1.6g	10g	2.2g	0.9g	13.2g	0.2g

0 portions of fruit and veg

# Mini salmon fishcakes with caper, lime and dill sauce

Serves 6, makes 12 small fishcakes  
| Prep: 20 mins plus chilling time  
| Cook: 40 mins

## FOR THE FISHCAKES

- 350g skinless salmon fillets
- Finely grated zest and juice of 1 small lemon
- 1tsp fennel seeds, lightly crushed
- 450g floury potatoes, peeled and cut into cubes
- 150g broccoli, finely chopped
- 2 hardboiled eggs, shelled and chopped
- 1tsp English mustard
- 2tbsp finely chopped parsley
- 2tbsp finely chopped dill
- 3tbsp plain wholemeal flour
- 1 large egg, lightly beaten
- 100g wholemeal breadcrumbs
- Low-calorie cooking spray – about 6 pumps

## FOR THE CAPER, LIME AND DILL SAUCE

- 200ml natural plain yogurt, or a no-added-sugar dairy-free yogurt of your choice
- 1tbsp capers, drained
- A squeeze of fresh lemon juice
- 1 large gherkin, (about 65g) trimmed and finely chopped

1 Preheat the oven to 200°C/180°C fan oven/gas 6. Arrange the salmon on a baking tray and sprinkle over the lemon zest and fennel seeds. Spoon over the lemon juice and bake for 15 mins.

2 Meanwhile, cook the potatoes in a large pan of boiling water for 8 mins. Add the broccoli and cook for a further 2 mins until tender. Drain well, return to the pan, cover and allow to steam until the fish is ready.

3 Tip the potatoes into a large bowl and roughly mash. Flake the salmon into the bowl and add the chopped egg, mustard, parsley and half the dill. Season with freshly ground black pepper. Mix gently to combine. Shape into 12 even-sized fishcakes.

4 Sprinkle the flour onto a plate, beat the egg in a wide bowl and sprinkle the breadcrumbs onto a separate plate. Dust the fishcakes with flour and dip in the egg and then the breadcrumbs to coat

completely. Chill for 30 mins.  
4 Arrange the fishcakes on a baking sheet lined with baking paper and spray with a little low-calorie cooking spray – about 6 pumps. Bake for 20–25 mins until crisp and golden.  
5 Meanwhile, mix all the sauce ingredients together with the remaining dill and chill until ready to serve. Serve the fishcakes warm with the sauce and a side salad, or leave to cool completely and store in the fridge in an airtight container. Eat within 2 days.



PER SERVING 274g

CARBS	CALS
34.8g	389

Sugars	Fat	Sat Fat	Salt	Protein	Fibre
3.4g	16.9g	3.8g	0.77g	22g	4.6g

0 portions of fruit and veg

# Veggie rice paper rolls with dipping sauce

Makes 8 | Prep: 15 mins |  
Cook: None

VEGAN

## FOR THE ROLLS

- 50g vermicelli rice noodles
- 1 tsp toasted sesame oil
- ½ small little gem lettuce, about 50g, finely shredded
- 1 small carrot, (about 65g) peeled and very thinly shredded
- ⅓ cucumber (about 85g) deseeded and cut into thin julienne
- 4 spring onions, trimmed and finely shredded
- 1 tbsp fresh chopped mint
- Small handful fresh coriander sprigs
- 8 (20cm) rice paper wrappers

## FOR THE DIPPING SAUCE

- 1 tbsp no-added-sugar or salt crunchy peanut butter
- Finely grated rind and juice of ½ lime

- 2tsp Sriracha sauce
- 3tbsp soya plain yogurt

1 Cook the noodles according to the packet instructions. Drain and rinse under cold running water. Drain well and toss with the sesame oil, and set aside. In a large bowl, mix together lettuce, carrot, cucumber, spring onions and mint until well combined.

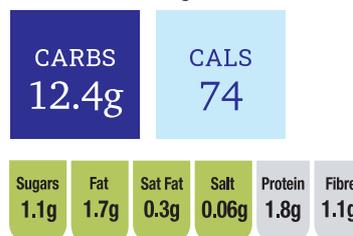
2 Fill a shallow dish just larger than the rice paper wraps – a frying pan works too – with hand-hot water. Push one wrapper below the surface and leave for 20 secs until softened. Carefully lift out and lay flat onto a wet work surface.



Lay a coriander sprig on the lower third of the wrap. Cover with a small handful of cooked noodles and the shredded vegetable mixture. Fold the lower edge up and over the filling. Then fold in the sides and continue to roll into a sausage shape – your filling should be completely enclosed in the rice paper wrap. Arrange on a plate and repeat with the remaining coriander, noodles, filling and rice paper rolls. You may need to change the water for the rice paper rolls if it becomes cold – it should be hand-hot to soften the wraps.

3 Place the peanut butter into a small bowl and loosen with 2tbsp boiling water and stir until smoothish. Mix in the sriracha, lime zest and juice and yogurt, then serve with the rice paper rolls.

PER SERVING 56g



0 portions of fruit and veg

# Ginger and lime pudding

Serves 4 | Prep: 15 mins |  
Cook: 20 mins

VEGETARIAN



- 4tbsp no-added-sugar marmalade
- Finely grated rind and juice of 2 limes
- 2 eggs, yolks separated
- 25g light soft brown sugar
- 85g wholemeal self-raising flour
- 2tsp ground ginger
- 8tbsp 0% fat Greek yogurt

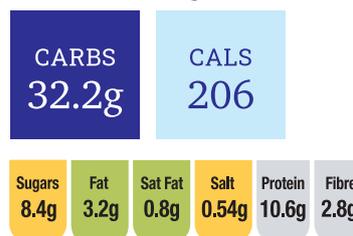
1 Preheat the oven to 180°C/160°C fan oven/gas 4. Line the base of four small 6fl oz pudding basins with a circle of non-stick baking paper. Mix the marmalade with the juice and rind of 1 lime and divide between the basins.

2 Whisk the egg whites until stiff, then slowly whisk in the egg yolks and sugar until pale and creamy. Sieve over the flour and ginger, tipping the bran back into the flour mixture, and gently fold in using a metal spoon. Divide the mixture between the pudding basins – they'll be about half full – and put them into a small deep roasting tin. Place the filled roasting tin on the oven shelf and pour boiling water into the tin to come halfway up the sides of the pudding

basins. Bake for 20 mins.

3 Meanwhile, mix the Greek yogurt with the remaining lime juice. The pudding should be just firm to the touch once baked. Turn them out onto individual serving plates and serve with a spoonful of yogurt sprinkled with the remaining lime zest.

PER SERVING 136g



0 portions of fruit and veg

300TH  
ISSUE

# THE FOOD FILES



**We look at how dietary advice for people with diabetes has changed throughout history and take a look at the Balance recipe archives**

➔ Anyone who lives with diabetes will know there are a lot of myths around the condition and food. But it's a relief to know that the days of prescriptive and restrictive diets are gone. It's important that what people eat is sustainable, enjoyable and helps them to achieve treatment goals. The foods you eat make a difference to how you manage your condition, and also to how well you feel, how much energy you have and to your overall health.

## **Eating for health**

Usually, studies on food and health are observational – where researchers observe and record their subjects without directly changing any factors. And until relatively recently, there

wasn't enough research into specific foods and health to base recommendations on.

In the past, we advised people living with diabetes that 50% of their total daily energy intake should come from carbohydrates, 35% should come from fat and 15% from protein.

But thanks to growing evidence on specific foods and health outcomes, in 2011, we stopped being so prescriptive.

Today's guidelines, published in 2018 and co-authored by our Head of Care, Douglas Twenefour, highlight the benefits of individual foods instead. For example, we advise that foods such as wholegrains, certain fruits, green leafy vegetables, yogurt and cheese, tea and coffee are all

associated with reduced risk of type 2.

We also list foods associated with increased risk of type 2, including red and processed meat, potatoes – particularly French fries, sugar-sweetened beverages and refined carbohydrates. And we mention foods associated with an increased and decreased risk of cardiovascular disease, as people with diabetes have an increased risk of developing a range of cardiovascular diseases.

This approach is consistent with a global move towards attempting to improve health outcomes by focusing on overall eating patterns.

Prescribing the amount of energy – calories – that should come from your intake of protein, fats or carbs, was too restrictive and didn't fit every individual. The Mediterranean diet, for example, has a higher percentage of energy coming from fat, but has benefits and is protective to health.



Our latest nutrition guidelines emphasise dietary approaches associated with reduced cardiovascular risk, such as the Mediterranean diet, DASH diet (Dietary Approaches to Stop Hypertension), vegetarian and vegan diets, the Nordic healthy diet and moderate carbohydrate restriction.

We also know more about putting type 2 diabetes into remission, thanks to research we funded. The main route to remission – where your blood sugar levels are below the diabetes range without you needing to take any medication – is through weight loss.

We know there is no one way to achieve weight loss.

**"Thanks to growing evidence on specific foods and health outcomes, in 2011, we stopped being so prescriptive"**

### A focus on healthier fats

All of us need to follow a healthy, balanced diet that contains some fats, as they play an important part in our daily diet. However, each gram of fat provides more than twice as many calories as protein and carbohydrate, so eating too much fat can lead to you taking in more calories than your body needs. Over time, this causes weight gain, which can affect your diabetes management and risk of heart disease. Low-fat diets used to be regularly recommended for people with diabetes due to concerns about heart health and weight management.

But in recent years, there has been a shift in nutrition recommendations for people with diabetes, as well as for the 'general population', around the intake of dietary fats. So, instead of just focusing on reducing fat intake, our dietary guidelines were updated in 2011 to emphasise the importance of consuming healthy fats, like oily fish, unsalted nuts, avocados and vegetable oils, in appropriate amounts. But we still recommend limiting your intake of saturated fat from foods such as butter, ghee and lard, red and processed meat – including sausages and bacon – palm oil and coconut oil, and processed foods like pastries, cakes and biscuits.

### Balancing food and insulin

With more flexible insulin regimens and the use of insulin pumps, the days of "do's and don'ts" are long gone. The way to go nowadays is to try to fit



Dietary approaches should be sustainable and enjoyable

your diabetes treatment around your current lifestyle. But the same healthy, balanced diet is recommended for everyone, which includes food from all the main food groups.

In the past, people with type 1 were often advised to follow strict, rigid meal plans that emphasised consistent carbohydrate intake and limited fat.

The focus was on maintaining stable blood sugar levels with a fixed insulin regimen. Some people were advised to use carbohydrate 'exchanges' – where foods with roughly the same amount of carbohydrates were grouped together and people had to eat a specific number of exchanges for each injection.

The Lawrence Line Diet, developed in 1939 by one of our founders, RD Lawrence, who lived with type 1, was a carb exchange diet. The 'lines' were either black or red – with black lines corresponding to the quantity of carbohydrates and the red lines corresponding to the amount of food. People were given instructions about the number of black and red lines they could take each day and, by reference to the chart, they could vary their diet.

Over time, a shift occurred towards individualised meal planning and carb counting. This approach recognises that carbohydrates have the most significant effect on blood sugar levels.

In 2000, We funded Dr Sue Roberts and Professors Simon Heller and Stephanie Amiel to develop a life-changing education course that would teach people how to adjust their insulin doses to suit their lifestyles. That course, DAFNE, has now seen almost 60,000 'graduates'.

Evidence shows that DAFNE can help people significantly improve their blood glucose management. That means a better quality of life.

■ Find out more about diabetes diet and nutrition at: [diabetes.org.uk/bal-healthy-eating](https://diabetes.org.uk/bal-healthy-eating)



**DIETS OVER THE DECADES** Our expert nutritionist Stephanie Kudzin steps back in time to see how our eating habits have changed...



Healthwise, this was not helpful.



■ **1960s – ‘Diet Without Tears’**  
Carbohydrate exchange was an approach to help people with diabetes carb count. There was a list of different foods with the amount that would give you 10g or 15g of carbs. This helped

people mix and match carbohydrate food choices while staying within their allowance for each meal.

■ **Chocolate and savoury eclairs**  
We don't recommend ‘diabetic’ chocolate because it offers no special health benefits. The ‘diabetic’ label is unhelpful because they



still affect blood sugar levels. You can have a small amount of your usual chocolate as part of a healthy diet.



■ **‘Beer for diabetics’ and sugar-free cider**  
Today, we advise people living with diabetes to avoid

low-sugar beers and cider – sometimes called ‘diabetic’ drinks. These might have less sugar, but there's more alcohol in them.

■ **1995 – ‘Get your fats right!’**  
Our knowledge of the role of fats in health has evolved. We used to think all fats were bad and advised people to reduce their intake. This led to the production of low-fat products, and some replaced fats with sugar for palatability.

Our understanding of saturated fats has also evolved, as we used to think that all saturated fats were unhealthy. We now talk about foods and their role in health rather than the different nutrients. For example, processed meat and yogurt contain saturated fats. But, processed meat is associated with increased type 2 risk, while yogurt is associated with reduced risk.

**Replace your test kit with one device**

1. Lance



2. Apply

50 Test Cassette



- No Test Strips ✓
- All-in-One ✓
- No Test Kit ✓
- Convenient ✓



Built-in Gentle Pricker

**BETACHEK® C50**  
All-in-One Blood Glucose Meter

Available from:  
Diabetes UK Shop: Tel 0800 585 088  
Boots and [betachek.com/uk](http://betachek.com/uk)  
Please speak to your healthcare team about the most appropriate technologies for you.



Leading the way: George is keen to support young people with diabetes

# LET'S TALK ABOUT

## Being a mentor for young people with diabetes



George and brother Harry

➔ **Our new youth programme, Our Lives, Our Choices, Our Voices, helps young people share experiences, learn new skills, and shape our campaigns.**

It's also a chance to connect and have fun with people who know what it really feels like to live with diabetes.

George, 23, from Ascot, says:

I was diagnosed with type 1 when I was 14 years old and at boarding school. My older brother, Harry, was diagnosed four years earlier. In a way,

I was lucky my mum knew about the symptoms, and I wasn't too unwell at diagnosis. Harry really helped me deal with the diagnosis. He told me nothing has to change – I can still do everything I want to do.

So, I thought, it's rubbish I have diabetes, but it's something I have to get on with. I saw Harry go to university and be successful and realised I could do that too.

Talking to him made everything easier. I would have been more scared if my family didn't have any knowledge about diabetes, but I was lucky that I had people to support and look after me.

### Sharing stories

That's why Diabetes UK's Young Leaders programme is so important to me. The idea is that volunteers like me will build a peer support network and support young people to influence the way healthcare services are provided for young people.

I'm going through my training at the moment and learning about how to talk about diabetes to support and mentor people. I know I'll get as much out of the programme as I give to it, and I'll meet and learn from people from all walks of life. Everyone living with diabetes is different and manages it in their own way.

When I was diagnosed, my cricket coach at school asked if I could still play. I never let my diabetes get in the way, but I've had to find ways to manage when I'm on the pitch for three hours. Despite the challenges, I've toured amazing countries, played with incredible players, and feel really lucky. I remember in the early days of living with the condition, I asked Diabetes UK for some stickers to put on my cricket bat to raise awareness.

It's important, especially when you're newly diagnosed, to see other people with diabetes doing things you want to do. You may be worried about eating out, going to university or playing sports. I know from my experience talking to other sportspeople with diabetes it's so important to have someone to trade share those experiences with. Personal stories help bring attention to the condition. When you read diabetes things online, you can't always understand or relate to it, but when you speak to someone who lives with the condition, it becomes more real.

■ **We've worked with young people to give the project a new name. Keep an eye out for this later on in September!**

**For more info, visit:**

**[diabetes.org.uk/bal-type1-mentor](https://diabetes.org.uk/bal-type1-mentor)**



# WE ARE FAMILY

**Chirag and his mum, Sushila, talk about how type 2 has affected their family, and how our One Million Steps Challenge has brought positivity to Chirag's life**

**➔ Chirag Patel, 48, from Coventry, says:**

I first signed up for the One Million Steps Challenge in 2021. I'd recently been diagnosed as having prediabetes, and my aim was to lower my blood sugars to the normal range.

Type 2 diabetes has affected both my parents and my brother. My mum has had all sorts of problems caused by complications of the condition. It's severely impaired her sight, and she has mobility issues related to neuropathy. I don't want to end up with similar health issues.

So, I saw the challenge as a

perfect opportunity for me to get into healthier habits and do a bit of fundraising at the same time. I think it's really opened my eyes about diabetes. I started reading up about the condition and thought I'd best get my act together. And it worked! By the end of the challenge, I'd lost weight, I felt fitter, and I'd brought my blood sugar levels back down to the normal range. The problem was, after I got those good results and the challenge was over, I wanted to treat myself to puddings and things, and now I'm back in the prediabetic range again. That made

me want to take on the challenge again this year.

When I joined the One Million Steps Facebook group, everyone was so welcoming. If someone posts that they're struggling, people try to lift their spirits and motivate them. It's a lovely thing to be part of. I try to motivate people as well.

Hopefully, by taking part, I'll get my blood sugar levels back down again too. And, when I've done that, I'm not going to treat myself! Last time, the treats never ended.

I'm an early bird, so I find that motivates me to get out and get some steps in. I go for evening strolls as well, but if I've done it in the morning, I've got it out of the way. I have more energy earlier in the day, and when I've done it, I'm happier.



**Fond memories – and making more:** Chirag was caring for his dad and is Sushila's "rock". He's also taking time for his health with our One Million Steps Challenge

My dad, Suryakant, passed away last year aged 79. He'd been ill with bladder cancer and other health problems for some time.

I was always close to my dad, but I think we grew especially close over the past few years of his life when I became his carer. Dad was a very kind and caring person, although he was also very strict! Now he's gone, the things he said mean a lot to me. Simple things, like going for a walk together or having a coffee, are what I miss. But I know he wouldn't want us to be sad, and after all his health struggles, we feel he's at peace now.

**"I'm really happy Chirag is doing the One Million Steps Challenge... He's my rock, and I'm proud he's helping others too"**

I've had to deal with a lot of stuff recently with my parents and their health. Between all the chaos that life throws at me, I do still try to make time for myself. The One Million Steps Challenge has been a blessing in that regard.

**➔ Sushila Patel, 73, from Coventry, says:**

When I was diagnosed with type 2 diabetes over 20 years ago, I was relieved to find out what was wrong with me. But there wasn't really any education or guidance about how to manage the condition.

I was never given any advice about what I should or shouldn't eat. I wasn't encouraged to do more exercise. It was basically, 'you've got diabetes and here are the tablets you'll need to take.' No one warned me what the consequences of diabetes could be.

I think if I'd been helped to understand the condition, I might have avoided the complications I live with today.

Nowadays, it's easier to get dietary advice, and Chirag researches things on the Diabetes UK website. But we didn't even have that resource when I was first diagnosed. Today, I try to watch what I eat and make sure my blood sugars are as stable as possible.

I've had about 10 operations on my eyes over the years, and my sight is really impaired now. It's had a huge impact on my life.

I also have mobility problems due to the effects of neuropathy. I used to enjoy taking the bus into town, going

shopping, and chatting to people, but I can't do that independently anymore. It's tough. I have to rely on Chirag to accompany me when I need to go anywhere.

I used to love reading and cooking, and now I can't do those either. All these changes have had a huge impact on my life. But I try to stay positive and get on with things.

My husband passed away last year, and my sister recently died of complications related to type 2 diabetes, so I'm grateful that I'm still here. I've recently celebrated my 73rd birthday, and I want to live for a long time to come!

I'm really happy that Chirag is doing the One Million Steps Challenge for Diabetes UK and that he's exercising and looking after his health. He's my rock, and I'm so proud he's helping others too.

**■ Our Helpline is staffed by highly trained advisors who have counselling skills and an extensive knowledge of diabetes. They can provide information about the condition, take the time to talk things through and explore emotional, social, psychological or practical difficulties. You don't need a question about diabetes to call us: 0345 123 2399**

# MEET THE RESEARCHER



**Professor Claire Hills is leading a project exploring how high blood sugars can affect the way kidney cells talk to each other, and how this can lead to kidney damage**

➔ With our funding, Professor Claire Hills from the University of Lincoln and PhD student, Paige Philips, are investigating how to improve treatments for kidney and eye damage. Their findings will help better protect people with diabetes from these complications.

“I’ve had a long-standing interest in diabetes and its complications since completing my PhD in 2006,” says Claire. “During this time, I studied specifically how kidney cells may lose their ability to ‘talk’ to each other.

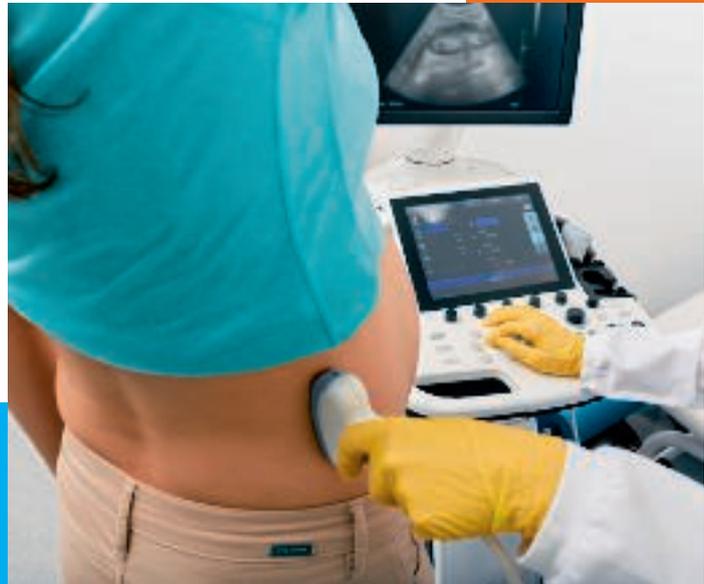
“Then in 2015, and through the generous support of Diabetes UK, I set up my own lab to further understand

## Diabetes and kidney damage

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

High blood sugar levels can damage the small blood vessels and tiny filters in your kidneys, as can high blood pressure. This can cause them to leak and not work as well. When this happens, abnormal amounts of protein from the blood can leave your body in your urine. This is often an early sign of kidney disease. If spotted early enough, treatment can slow down diabetic kidney damage.

Talk with your diabetes team if you have any concerns about kidney damage. They should be able to answer most of your questions. And we’re also here to provide support and information when you need it. For more info, visit: [diabetes.org.uk/bal-kidneys](https://diabetes.org.uk/bal-kidneys)



if this cell communication underpins the inflammation which dictates how quickly kidneys become damaged.”

Researchers have started to develop therapies that can block some of the damaging conversations between eye cells to help treat retinopathy. Claire is now testing if these new eye treatments could also work well for kidney cells.

“Using drugs already in trial for retinopathy, our recent studies have shown that, when we block the ‘bad’ language between kidney cells, we see signs of both improved health and kidney function.”

## Looking ahead

Claire also spoke about the kind of changes she’d like to see over the next decade for diabetes kidney research and care.

“We’re now looking to better understand if our findings can be applied in other parts of the body and to treat more complications of diabetes,” she says.

“My daily motivation continues to be fuelled by the prospect that my

programme of research and the combined efforts of collaboration will help advance our understanding of what initiates and drives kidney damage. One day we hope to find a cure and treatment which is suitable for all of those affected by this debilitating condition.”

## Outside the lab

In her spare time, Claire is passionate about combining good food and drink with cooking, travelling, and interior design.

But back in the lab, research wouldn’t be possible without our supporters whose generosity helps Claire and her devoted colleagues make important discoveries that help transform the lives of people with diabetes.

“With your support, I’ve been able to establish a thriving, collaborative team, bringing together all kinds of scientists to work together and better understand how complications of diabetes develop in a bid to help find a cure and improve the lives of people with diabetes.”



# Stay prepared. Stay Protected.

Allow rapid access to vital medical details in an emergency.



**Join today and receive 20% OFF your first year membership and MedicAlert ID.**

Scan the QR code or visit  
[medicalert.org.uk/balancemagazine](https://medicalert.org.uk/balancemagazine)

*"I have worn a MedicAlert ID for over 15 years, and it was crucial when I collapsed into a diabetic coma. The paramedics and doctors were able to get all my relevant medical information with one quick phone call."*

**Deborah Rogers, MedicAlert Member**



**SCAN ME**

OFFER ENDS 30/09/2023

**20% OFF**

**MEMBERSHIP  
& AN ID WHEN  
YOU BECOME  
A MEMBER**

**USE CODE:  
BALANCE23**

 [info@medicalert.org.uk](mailto:info@medicalert.org.uk)

 01908 951045

 **MedicAlert**



made  
for more

G7

**MORE COMFORT†**

Dexcom G7's discreet all-in-one wearable sensor is 60% smaller than its predecessor,† so you're free to get on with the important things in life.

**MORE TIME TO ENJOY THE BENEFITS**

Dexcom G7 completes sensor warmup 2x faster than any other CGM on the market.‡

**NO FINGER PRICKS\*, NO SCANNING**

Dexcom G7 sends your glucose levels directly to your phone, smartwatch§ or Dexcom receiver.

The next-generation Dexcom G7 can make diabetes management powerfully simple with a small, all-in-one wearable sensor and completely redesigned mobile app.§

**dexcomG7**

Visit [www.dexcom.com/balance](http://www.dexcom.com/balance) to find out more||



\*If your glucose alerts and readings from Dexcom CGM do not match symptoms or expectations, use a blood glucose meter to make diabetes treatment decisions  
†Compared to a prior generation Dexcom CGM System. Patients reported that 95% of Dexcom G7 sensors worn were comfortable to wear (mild, no discomfort).  
‡Dexcom G7 can complete warmup within 30 minutes, whereas other CGM brands require up to an hour or longer.  
§Compatible smart devices sold separately. To view a list of compatible smart devices, visit [dexcom.com/compatibility](http://dexcom.com/compatibility)  
||Please check with your diabetes healthcare team to see whether Dexcom continuous glucose monitoring systems are right for you.  
Dexcom, Dexcom Clarity, Dexcom Follow, Dexcom One, Dexcom G6, Dexcom G7, Dexcom Share, Share are trademark or registered trademarks in the U.S. and may be in other countries.  
© 2022 Dexcom, Inc. All rights reserved. LBL-1001177 Rev002