WINTER 2024 | ISSUE 305

DIABETES UK
KNOW DIABETES. FIGHT DIABETES.

# BALANCE

The exclusive magazine for Diabetes UK members

**TECH ACCESS**
How continuous glucose monitoring benefits people with type 2

**TREAT YOURSELF**
Recipes that are worth celebrating

# Bitter sweet symphony

A lifetime in the spotlight with type 1

DiABETES UK
KNOW DIABETES. FIGHT DIABETES.

# QUESTIONS ABOUT DIABETES?

## We're here to talk.

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

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

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

# Welcome to your winter issue of Balance

It's been an incredible year. With your support, we've taken major steps forward to create a world where diabetes can do no harm. By helping fund our innovative research, we've been able to accomplish great things to improve diabetes care and prevent type 2 diabetes.

The Type 1 Diabetes Grand Challenge is continuing to make strides towards better treatments and a cure for type 1. In this issue, you can read about new research we're funding to develop next-generation insulins that can respond to blood sugar levels, and how tick venom could be used to protect insulin-producing beta cells and even potentially prevent type 1 from developing.

And, as diabetes technology continues to transform lives, we look at the potential for continuous glucose monitoring (CGM) to help people living with all types of diabetes live healthier, happier lives.

We also have expert advice on managing diabetes and seasonal illnesses, a guide to the best dietary approaches for type 2 remission, and recipes that are comforting and nutritious.

**Senior Membership and Retention Manager, Diabetes UK**

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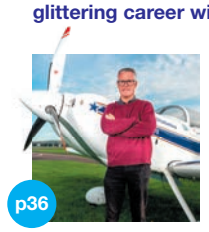
On the world stage: Janice's glittering career with type 1



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Douglas explains how living with diabetes needn't curtail high-flying ambitions

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Treat yourself: indulge in nutritious, healthier canapés, desserts and snacks

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

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

**Q: Where is my welcome pack?**

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

**Q: Do you provide alternative formats of Balance?**

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

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

## FIND SUPPORT

### Call our Helpline

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

In Scotland, call **0141 212 8710** or email **helpline.scotland@diabetes.org.uk**

### Talk to people with diabetes

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

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

For more details, go to **diabetes.org.uk/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**

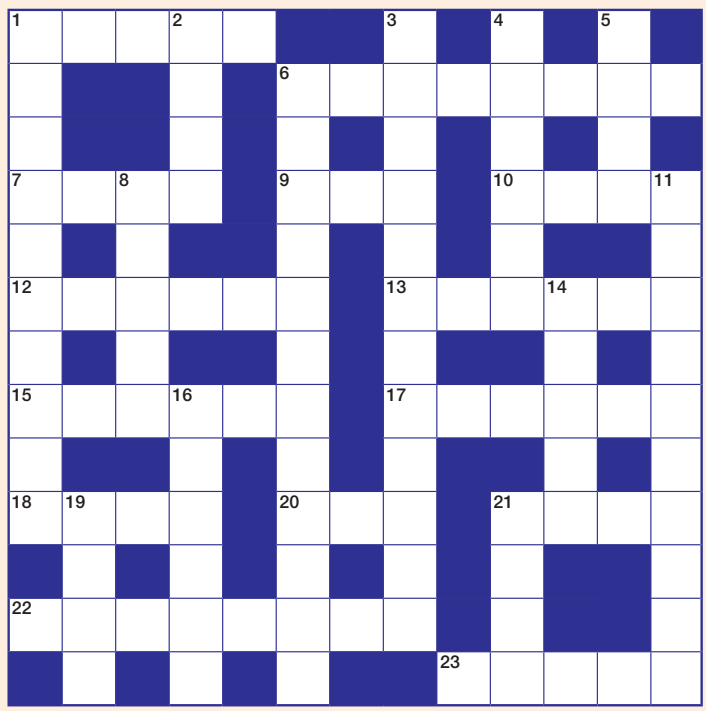
# CROSSWORD

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

**WIN!** Ocado vouchers **WORTH £50**

## ACROSS

**1** Sun-dried mud brick (5)
**6** Coastal road built into the side of a cliff (8)
**7** Keep talking about instrument? (4)
**9** Floor covering (3)
**10** Notion (4)
**12** Colour between violet and blue in the spectrum (6)
**13** Sesame seed paste (6)
**15** Wasp-like insect (6)
**17** Living world personified, Mother - - - (6)
**18** Route through mountains (4)
**20** Self-image (3)
**21** Hide from rain? (4)
**22** UV protection cream (8)
**23** Kind of boat or train? (5)



Name_____

Address_____

_____ Postcode _____

## DOWN

**1** Senior cleric (10)
**2** Flashing dot on a radar screen; minor deviation (4)
**3** Book by Graham Greene (8,4)
**4** Conclusion (6)
**5** Box from which cards are dealt in casino (4)
**6** Maize as a vegetable (4,2,3,3)
**8** Extra clause added to a document (5)
**11** Digestive tract, ___ canal (10)
**14** Habituate, become hardened to (5)
**16** Battle site of the English Civil War (6)
**19** Variety of lily (4)
**21** Fruit such as Comice (4)

**SOLUTION for last issue's crossword:**
**ACROSS: 1** Buckle, **4** Chord, **9** Fulcrum, **10** Libel, **11** Hankering, **12** Tern, **13** Iliad, **16** Acid, **19** Flageolet, **21** Anise, **22** Danelaw, **23** Thigh, **24** Screen. **DOWN: 1** Buffet, **2** Collar, **3** Larch, **5** Halberd, **6** Rubric, **7** Amontillado, **8** Elegy, **13** Iceberg, **14** Offal, **15** Parish, **17** Childe, **18** Darwin, **20** Tonic.

**T&Cs: 1.** Opens 4 December 2024. **2.** Closing date is 26 February 2025. **3.** The prize is a voucher for Ocado, worth £50. **4.** Open to UK residents aged 18 and over. **5.** Promoter: The British Diabetic Association operating as Diabetes UK (English charity no 215199 and Scottish charity no. SC039136), Wells Lawrence House, 126 Back Church Lane, London E1 1FH. **6.** Go to diabetes.org.uk/bal-comp-terms for full T&Cs.

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Cover image: **Neale Haynes.** Photography this page: **Vinny Whiteman, Damian Prestidge**


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

# THE BULLETIN

## The latest diabetes news, research and developments


## Award for hybrid closed loops

In September, we won the Big Impact Award, alongside Breakthrough T1D, at this year's Third Sector Awards for our work helping to develop hybrid closed loop technology and make it available for hundreds of thousands of people with type 1 diabetes on the NHS.

We're delighted to have won the award, which is given to charities that make a substantial impact on national or international life.

Hybrid closed loop is a life-changing development in diabetes care. It connects compatible insulin pumps and continuous glucose monitors (CGM) with a computer algorithm that can automatically calculate most of the insulin doses someone needs based on their glucose readings. It has been shown to both greatly improve self-management and quality of life.

We've funded research into the technology for decades, including buying the UK's first artificial pancreas device in 1977 to help stabilise blood sugar levels for people with type 1 diabetes during surgery and childbirth. Over the years, we've supported its development, which has led to the creation of commercially available systems.

We've also influenced for the adoption of hybrid closed loop technology in the NHS to make it more widely available to people with type 1 diabetes in the UK. This is a celebration of the huge collaborative efforts involving colleagues, volunteers, healthcare professionals, researchers and many more, that have led to this exciting point.

## NEWS IN NUMBERS

TYPE 1 DIABETES **GRAND CHALLENGE**

The Type 1 Diabetes Grand Challenge is a trailblazing partnership between Diabetes UK, Breakthrough T1D, and the Steve Morgan Foundation, investing an unprecedented £50 million to speed up the race to a cure for type 1.

**£23 MILLION** **INVESTED**

**PROMISING NEW PROJECTS** to fast-track type 1 diabetes discoveries **19**

**161** **BRILLIANT RESEARCHERS** and collaborators teaming up to tackle type 1

**47** **INSTITUTES SUPPORTING** cutting-edge science

**8** **COUNTRIES AROUND THE WORLD** where research is taking place

# Celebrating 90 years with type1

## Betty Meeson-Smith was recently honoured for living with type 1 diabetes for an incredible 90 years


**BETTY WAS DIAGNOSED** in 1934 at the age of five, and to mark her very special anniversary, we presented her with a commemorative plaque at her home in Royston, Hertfordshire.

Usually, medals are sent to commemorate anniversaries at 50, 60, 70 and 80 years, but 90 is so rare, a bespoke memento needed to be commissioned.

Betty's son, Malcolm, said: "Mum's own parents had no idea what to do when she was diagnosed, but over the years, so much has changed.

"She was looked after by diabetes pioneer Dr Wilfrid Oakley at King's College Hospital for a number of years and maintained the strict regime of injections and diet required to manage type 1 even through World War II, evacuation from London and the privations of rationing both during and after the war."

Betty worked as a chiropodist before retiring at 58. She was married to Alexander for almost 60 years, and her day-to-day care has been revolutionised by technology.

Malcolm said: "Mum has always been a very determined person. She now uses a Libre II and it has made a massive difference, especially not having to finger prick all the time. She just wants people to see that with careful management, a type 1 diagnosis needn't be a barrier to a long life and doing what you want."

Our Head of Midlands and East Region, Peter Shorrick, said: "It's quite something to have lived a full and active life with type 1 for so many years. Our very best wishes go to Betty."

**"She maintained the strict regime of injections and diet required to manage type 1 even through World War II"**

# Join a local support group

In In 1939, a team of dedicated volunteers opened our first support group. Today, volunteers run nearly 200 groups across the UK, serving their local communities by bringing advice, support and connecting with others.

The Communities and Volunteering team in the Midlands and East region explain a bit about their role and give us an insight into what our support groups are up to nationally.

Some groups meet to listen to guest speakers and chat in a friendly environment. The Sheffield Group holds hybrid meetings. They also attend community events to share knowledge, and send information to newly diagnosed people, friends, families and health professionals.

The Coventry group found an innovative way to raise awareness of the importance of footcare, holding an event in the city centre. Other groups support families of children with diabetes, with many organising fun days out, giving families the opportunity to meet others, often for the first time.

Recently, the Norwich and District Youth Group organised a driving event for 5–17-year-olds. Younger children whizzed round in go-karts, whilst teenagers got input from local driving instructors.

Our team is involved in training and supporting a large team of volunteers, all of whom help deliver our important work. Engaging with all communities, we reach people who are at increased risk of diabetes. Helping people understand how diabetes affects them is core to our goals as an organisation.

**Find your local group by entering your town or postcode at: diabetes.org.uk/bal-groups**

BEHIND THE HEADLINES

## Does eating a ham sandwich a day increase the risk of type 2 diabetes?

New research from the University of Cambridge highlighted an association between developing type 2 diabetes and eating processed meat like ham and bacon and red meat such as beef and lamb.

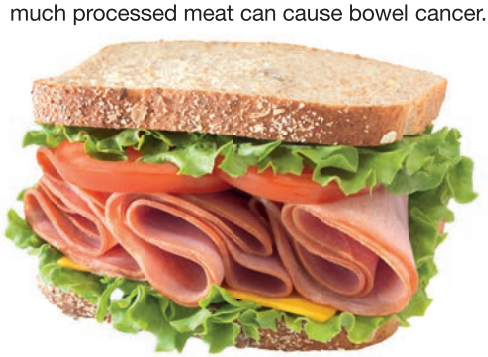
But the findings are nuanced, and the study cannot prove meat causes type 2 diabetes because it is impossible to fully discount all the other possible risk factors for type 2, including living with obesity or overweight, high blood pressure, ethnicity, age and family history.

The 'ham sandwich' headlines seem to have come about because the research found that the increased risk of type 2 diabetes was linked to eating an extra 50g of processed meat every day, which equates to two slices of ham.

Lead researcher Prof Nita Forouhi, from the University of Cambridge, said: "Our research provides the most comprehensive evidence to date of an association between eating processed meat and unprocessed red meat and a higher future risk of type 2 diabetes. It supports recommendations to limit the consumption of processed meat and unprocessed red meat to reduce type 2 diabetes cases in the population."

Our expert nutritionist, Stephanie Kudzin, said: "This study is relevant because it's directly talking about increased risk of type 2 diabetes from all red and processed meat. A healthy diet means less red and processed meat – they've also been linked to cancer and heart disease."

The NHS already advises people to eat no more than 70g (cooked weight) of red or processed meat a day because eating too much processed meat can cause bowel cancer.



# Get involved


## Only Water challenge

### One Month. Only Water. Are you up to the challenge?

This February, give up all your favourite drinks to raise vital funds to support people affected by diabetes – and drink only water!

Only Water challenges you to drink nothing but water for one whole month. Cut back on caffeine, sugary drinks, and alcohol for the length of February. You can carry on eating as normal.

Sleeping better, feeling more focused and less sluggish are just some of the benefits you might notice.

This year, 958 dedicated supporters took part in Only Water, raising an impressive £43,640. In 2025, we're aiming even higher!

It's free to sign up, and there's no minimum sponsorship requirement. But having a target can help you stay motivated, so why not aim for £100?

**Our tips for success:**

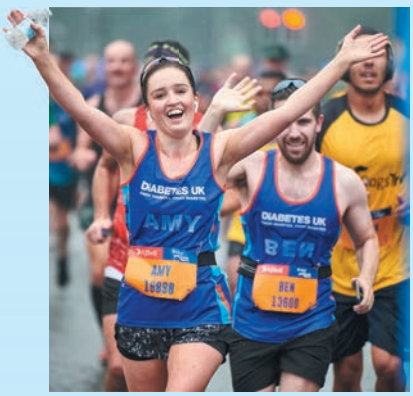
- **Say hello to other people taking part in our supportive Facebook group – you'll help each other on the tough days!**
- **Add fruit or herbs to flavour your water and make it more interesting.**
- **Don't forget, you can have sparkling water too.**

**Find out more and sign up for the challenge at: diabetes.org.uk/bal-only-water**

"I really missed my morning coffee ritual at first, but after the first week it became much easier"

**Maria**

## Great North Run




**ON SUNDAY, 7 SEPTEMBER 2024**, 361 Diabetes UK running heroes were lining up in Newcastle to complete the world's biggest and best half marathon – the Great North Run.

With a total of 60,000 runners taking on the route from Newcastle to South Shields, our runners were not alone, thanks to the warm Geordie welcome.

Our fundraising events team were waiting to cheer on our runners, with a brass band giving them the extra boost they needed to get to that finish line, where we were waiting with a cup of tea and a well-deserved sports massage.

One team member, Cole Gibbens, completed 13.1 miles in just 1 hour, 13 minutes and 14 seconds! And, thanks to our amazing runners and their supportive families and friends, we've been able to raise a grand total of £175,000 to support those affected by diabetes.

**Join us for the Great North Run or any other fundraising event. Visit: diabetes.org.uk/bal-events or email events.fundraising@diabetes.org.uk**

## Dive into Swim22 next spring

**MAKE A SPLASH IN 2025 AND BOOST YOUR MOOD** with every swim by joining our life-changing challenge, Swim22. Next spring, swim 22 miles – the distance of the English Channel – over 12 weeks for a healthier you and a better future for people affected by diabetes. When you sign up, you can choose to swim the full 22 miles, 'The Half' distance of 11 miles or 'The Double' of 44 miles. Whatever you choose, you can go at your own pace at your local pool, your way.

Archie, one of our Swim22 champions, says: "Swimming every morning meant I had put time in for me and achieved something before work. That habit has stuck."

Join Archie and thousands of others, and sign up now, ready for 22 March.

**Sign up at: diabetes.org.uk/bal-swim**

# Fundraising feats

## A tale of friendship

**YVONNE WARNER FROM STOURBRIDGE** is raising funds for us and Breakthrough T1D through royalties from a book she has written, My Forever Best Friend, about her adventures living with type 1 diabetes.

Yvonne, who was diagnosed in 1971, aged nine, said: "Type 1 diabetes is my forever best friend. It is with me for life, and I am inseparable from it. The book is about how I learned to live with my best friend through the good and the bad, the highs and the lows. The whole experience of living with type 1 diabetes has made me the person I am."

**Search 'My Forever Best Friend' on Amazon**.

## Diving into life


**LILLY-ANNE MURPHY, ONE OF OUR INSPIRING** Young Leaders for the Together Type 1 programme, has had a busy summer. While studying for her final year at the University of Exeter, she took on a skydive, raising an incredible £1,319 for us.

Lilly said: "Exercise, stress, working, being social – all of these affect my blood sugars. It can be emotionally and physically draining and there's no time off. All I can do is stay positive and manage the best I can. If throwing myself out of a plane helps support diabetes research, that's what I'll do!"

Congratulations to Lilly for completing her university career, raising funds for us, and showing that diabetes doesn't have to stand in the way of university life.

# Star letter

I felt compelled to write. My wife has had T1 diabetes for over 40 years. Between our two sons and I we keep a good eye on her and have learnt to recognise when she's not quite right and needs to check her blood sugar levels. In all the years I've known her, I've rarely needed to get involved, other than to help with a few urgent hypo instances.

I'm embarrassed to say that Balance arrives regularly and I put it aside for my wife to pick it up and read it. The thought had never occurred to me to read it, until today! What a fantastically well put together magazine – engaging, interesting, educational and more. I just wanted to say thank you for all that you do to help people like my wife and the many other people across the nation who live with diabetes, day in and day out.

**Mo Khan, 57, Hertfordshire**

**Get in touch at:**
**balance@diabetes.org.uk**
**Our star letter wins Ocado vouchers, worth £50.**

# “It’s the best decision I’ve ever made”

## Being diagnosed with type 2 diabetes was the push Lisa Eden, 46, from Nottinghamshire, needed to find a sustainable, healthy way of life


**Being diagnosed with type 2 and high blood pressure triggered a mindset shift that made Lisa determined to improve her health**

Before joining Slimming World, mum-of-three Lisa had struggled with her weight for most of her life and began dieting at just 11 years old.

Support-worker Lisa had tried a range of weight loss methods, including hypnotherapy and weight loss groups. She would lose weight and feel great, but the weight always came back on – and more.

After being diagnosed with type 2 diabetes and high blood pressure, Lisa’s GP gave her three months to make changes to her diet and activity before she would need to start taking medication to manage her conditions.

Lisa, who lives with her husband and three daughters, says: “I was at rock bottom, both physically and mentally. I knew I wanted and needed to make a change, but I just didn’t know how.

“The situation was urgent – if I didn’t improve my health, then I’d have to go on various different medications to try to keep my conditions under control.”

In February 2022, Lisa joined the Clifton Slimming World group. She says: “I wasn’t convinced that it would work. I tried Slimming World years ago, but looking back, I realise that my head was never really in the game. This time, though, my mindset had completely shifted, and I was ready to fully embrace everything Slimming World had to offer to help me on my weight loss journey.

“I was nervous about walking into group for the first time as I was self-conscious and embarrassed about my size. I pushed through the nerves, though, as I knew I had to do it. I’m so glad I did, it’s the best decision I’ve ever made – for me and my family.

“I was welcomed straight away by my Consultant, Sacha, and the other group members, and I felt reassured and relieved. Everyone at group is so supportive, and there is never any judgement.”

Lisa has lost 13st, more than half her body weight, by following Slimming World’s Food Optimising eating plan. She is still able to enjoy her favourite meals, like a roast chicken dinner, with her family. She has also increased her fitness and activity levels with Slimming World’s Body Magic physical activity support programme, and she now loves to do aqua aerobics and Clubbercise at her local leisure centre.

Lisa says: “I no longer see exercise as the enemy – I love it! I have gone from struggling to climb the stairs to climbing Snowdon and enjoying every second of it.”

### SLIMMING WORLD’S PARTNERSHIP WITH DIABETES UK

- Slimming World and Diabetes UK are joining forces in a three-year partnership. Together, we’ll aim to support people living with all types of diabetes, and those at risk of type 2, to manage their weight in a way that works for them.
- An estimated 5.6 million people are living with diabetes in the UK. Around 3.2 million are at risk of developing type 2, and many find keeping to a healthy weight a struggle.
- For more info, visit: **slimmingworld.co.uk**

In partnership
DIABETES UK
KNOW DIABETES. FIGHT DIABETES.
Slimming WORLD

# THE INSIDER

**The latest diabetes health news, research and developments**

# Racing towards new treatments and a cure

**The Type 1 Diabetes Grand Challenge invests another £4.8 million into 10 new projects**

TYPE 1 DIABETES GRAND CHALLENGE

It's been a bumper year for Type 1 Diabetes Grand Challenge research. Ten new projects are aiming to transform the future of type 1 with innovative solutions for treating and curing the condition.

## Next generation insulins

People with type 1 can't make their own insulin, so they regularly need synthetic insulin to survive.

One challenge of using synthetic insulins is they take longer to work than insulin produced naturally in the pancreas. Another challenge is getting the dose of insulin just right to keep blood sugars in a safe range.

To address these issues, we've just launched six new novel insulin projects worth over £2.7 million.

This funding will accelerate the development of insulins that more closely mimic a healthy pancreas.

Prof Christoph Hagemeyer

## SMARTER INSULINS

Four of these newly funded projects involve scientists creating and testing novel types of insulin that can respond to changing blood sugar levels, known as glucose-responsive insulins or 'smart' insulins.

This type of insulin is being designed to become active only when blood sugars increase to a certain level to prevent hypers (high blood sugar) and become inactive again when levels drop below a certain point to avoid hypos (low blood sugar).

The research teams are led by Professor Christoph Hagemeyer at Monash University, Australia, Professor Zhiqiang Cao at Wayne State University, USA, Professor Zhen Gu at the Jinhua Institute of Zhejiang University in China, and Professor Matthew Webber at the University of Notre Dame, USA.

## FASTER INSULINS

Professor Danny Hung-Chieh Chou and his team at Stanford University, USA, have received funding to develop a new ultrafast, short-acting insulin. Even with the fastest insulins currently available, there is still a delay between the drug being given and the point it starts to act on blood sugar. This can result in blood sugars rising to unsafe levels before insulin can act to lower it. Faster insulins are also needed to improve the function of insulin pumps and hybrid closed loop technologies, a system that relies on stored insulin responding in real-time to changing blood sugar levels.

Prof Michael Weiss

## COMBINING INSULIN AND GLUCAGON

The final novel insulin project, spearheaded by Professor Michael Weiss at Indiana University, USA, is aiming to design a drug that combines insulin with another hormone, glucagon. Unlike insulin, which helps

Words: **Mikayla Hu.** Photography: **Getty Images**

**"We are aiming to develop new insulins that more closely mimic the body's natural responses"**

remove sugar from the blood, glucagon causes the liver to release sugar into the blood when levels run low. Having both hormones working together to prevent high and low blood sugar levels could help keep blood sugar levels more balanced.

Dr Tim Heise, Vice Chair of the Grand Challenge's Novel Insulins Scientific Advisory Panel, said: "Even with the currently available modern insulins, people with type 1 diabetes have to put lots of effort into managing their diabetes every day to find a good balance between acceptable glycaemic control and avoiding hypoglycaemia on the other. The funded six new research projects address major shortcomings in insulin therapy."

Dr Elizabeth Robertson, our Director of Research, said: "This has the potential to revolutionise type 1 diabetes treatment. By supporting these groundbreaking research projects, we are aiming to develop new insulins that more closely mimic the body's natural responses to changing blood sugar levels. This could significantly reduce the daily challenges of managing type 1 diabetes and improve both the physical and mental health of those living with the condition."

## Boosting beta cell therapies

Beta cell therapies could spell the end of insulin therapy for people with type 1 diabetes by helping them make their own insulin again. But for everyone to benefit, we need to work out how to produce an unlimited supply of healthy beta cells and protect these from the type 1 immune attack. Three new high-risk, high-reward projects with the potential to do just that have just been funded by the Grand Challenge.

Dr Aida Martinez-Sanchez

### MICRORNAS IN BETA CELL TRANSPLANTS

Drs Aida Martinez-Sanchez and Prashant Srivastava at Imperial College London hope to uncover why some beta cells are more vulnerable to immune attack. They suspect that differences in microRNAs (miRNAs), a type of small molecule in the body that helps control how genes work, might explain why lab-grown beta cells don't function as well as beta cells grown in our pancreas and can be rejected after transplantation.

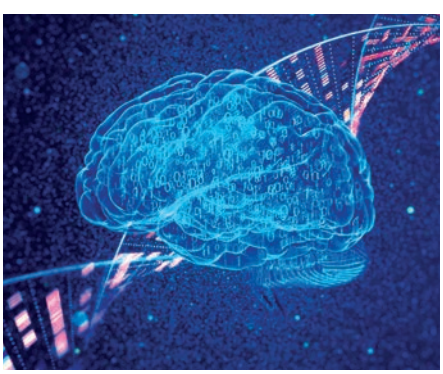
The team will compare miRNAs in beta cells from people with and without type 1 diabetes and those grown from stem cells in the lab. They'll investigate how miRNAs affect how beta cells grow and work. This could help to produce lab-grown beta cells that are better suited to transplantation, eventually improving the success of beta cell therapies in people with type 1 diabetes.

### INSULIN ON THE BRAIN

Drs Craig Beall and Thomas Piers at the University of Exeter are investigating a type of brain cell that produces insulin. Though insulin is not produced in large enough amounts to manage blood sugar levels, the brain cells are protected from the type 1 immune attack. The team is exploring whether these brain cells can work alongside beta cells to boost insulin production and protect them from the immune system. The researchers will mimic the conditions of type 1 in the lab and test how well these brain-beta cell combos work.

Developing a therapy that combines beta cells with insulin-producing brain cells could lead to longer-lasting insulin production following beta cell transplants and potentially reduce the need for immune-suppressing medications.

Dr Craig Beall said: "The moonshot we're aiming for is a cure that frees people with type 1 from insulin injections and immunosuppression. This is the next step in that journey."



### HOW DO BETA CELLS TICK?

Professors Shoumo Bhattacharya and David Hodson at the University of Oxford are exploring whether tick saliva can help protect beta cells transplanted into people with type 1 diabetes from the immune system attack. Tick saliva contains a protein that helps them evade detection by their host. The researchers will investigate whether this protein can be used to block chemical signals released by transplanted beta cells that guide immune cells to destroy them.

If successful, this research could lead to beta cells that survive and thrive for longer after transplantation and without the need for immunosuppressant drugs, improving the success of beta cell transplants in people with type 1 diabetes.

Professor Shoumo Bhattacharya said: "Our lab is looking to nature for new ways to treat inflammatory diseases. Ticks have evolved over millions of years to block inflammatory signals called chemokines. Chemokines cause beta cell inflammation, which is important in the development of type 1 diabetes and can cause transplanted beta cells to fail. We are very excited to receive funding from the Grand Challenge, with which we aim to develop tick-inspired treatments to help people with type 1 diabetes. These treatments could improve the success of beta cell transplants and prevent type 1 from developing."

Prof Shoumo Bhattacharya

Dr Robertson added: "These high-risk, high-reward, innovative projects exemplify the transformative potential of the research funded by the Type 1 Diabetes Grand Challenge. By driving forward bold, cutting-edge approaches, we're stepping closer to revolutionising the way type 1 diabetes is treated and improving the lives of those affected by the condition."

**"Tick saliva contains a protein that helps them evade detection by their host"**

### IMMUNE INSIGHTS TO PREVENT TYPE 1

A final project, led by Professor Eoin McKinney at the University of Cambridge, will study our genes to find new drug targets for type 1 diabetes. The researchers have identified specific gene patterns, called signatures, that are only seen in those who develop type 1 diabetes. By studying these signatures, they will get a better understanding of the abnormal immune responses that lead to type 1 diabetes.

The team will see whether these type 1 signatures match any drugs already used for other conditions. If they find a match, they will test if the drug can help prevent the type 1 immune system attack in cells in the lab and in animals. This matching approach speeds up the drug discovery process since these drugs are already shown to be safe for other uses. If successful, this research could identify new safe and effective drugs tailored to protect beta cells in people with type 1.

Dr Robertson said: "This holds huge promise for changing the lives of those living with or at risk of this condition, accelerating us towards our ultimate goal of finding a cure."

### A NEW ERA

**With a total of 19 projects now underway, involving 161 people from 48 institutions, the Grand Challenge is paving the way for groundbreaking advances in new treatments and cures for type 1 diabetes.**

**From improving insulin therapies and beta cell transplants to repurposing existing drugs, step by step each project is helping us to move us closer to a new era of type 1 diabetes treatments.**

# Screening my son for type 1

**Our ELSA study is taking us closer to the development of a potential UK-wide screening programme for type 1 diabetes. Our Head of Research Communications, Dr Lucy Chambers, explains why her family is taking part**

I don't jump into decisions; I always do my research and make sure to check out all the options. The fact that I have acquired enough sample tiles to tile my entire bathroom is testament to that!

One decision I've been mulling over is whether to screen my 11-year-old son, Frank, to find out if he is at high risk of developing type 1 diabetes. We now know that the wheels are in motion months and years before the symptoms of type 1 develop. It's now possible to detect those on the journey to a type 1 diagnosis by looking in their blood for autoantibodies. Those with two or more diabetes autoantibodies have a near-100% chance of developing type 1 in their lifetime. That is why they are sometimes referred to as having "pre-type 1 diabetes."

When ELSA, our type 1 screening study for children, opened, I did my research, and the evidence was clear: Determining if Frank is at high risk would have many benefits. It would reduce the chance of going through a terrifying and life-threatening emergency diagnosis, he could get access to new treatments that postpone type 1, and the experts would support the family to get to grips with his inevitable diagnosis.

Nearly two years later, as ELSA approaches its recruitment target of 20,000 children, it's only now that I've finally made the decision to enrol Frank. In truth, my hesitation was part arrogance, part fear. I live with type 1 and was sure that I'd spot the first signs of symptoms. I was also terrified of living with the knowledge and sadness that type 1 was an inevitability for him. But, after learning that 25% of children with type 1 are diagnosed in diabetic ketoacidosis – requiring urgent medical attention – and knowing that, "the sooner we screen, the sooner we can intervene," I bit the bullet.

**"I did my research, and the evidence was clear: Determining if Frank is at high risk would have many benefits"**

## Taking the test

So, how did it go? First off, signing up and providing the blood sample was very quick and straightforward. Frank was a bit apprehensive about the sampling, but all it required was a little prick to the finger and then placing some blood drops on a piece of blotting paper. The sample went off in the post and after a short wait, we received our results.

We were relieved to learn that Frank is at low risk of type 1 diabetes. Even though I knew that his risk was only marginally raised by having a mum with type 1, this news has alleviated worries I've shouldered since he was born. If the results had gone the other way, emotions would be running high, but I know the ELSA team would have been there by our side and made sure we were well-supported. Frank would be regularly monitored, the whole family would receive advice and psychological support, and with any luck, we'd be offered a place on an immunotherapy trial to see if it's possible to hold off a type 1 diagnosis. The alternative would be to go it blind and potentially have Frank crash-land into type 1, and I feel privileged to be given the option to avoid that for my son.

**Recruitment is still open, so there's still time for you to get involved! Visit: diabetes.org.uk/bal-elsa**

Words: **Dr Lucy Chambers**


# Diabetes discoveries

**Thousands of scientists gathered in Madrid for the 60th European Association for the Study of Diabetes (EASD) Annual Meeting in September to share the latest and greatest in diabetes research. Here are some of the exciting developments**

## The role of sleep in diabetes complications

Diabetes can cause complications on a tiny scale, which can have a very big impact. These 'microvascular' complications, like retinopathy, which affects the eyes, result from damage to small blood vessels. This damage can harm larger blood vessels and lead to the development of macrovascular complications, like coronary artery disease or stroke.

A growing body of evidence suggests that the risk of developing these diabetes-related complications is influenced by sleep quantity and quality. Now, researchers in Denmark have shown that, in people living with type 2 diabetes, getting too little or too much sleep is linked to an increased risk of damage to small blood vessels.

The team explored whether sleep duration is linked to microvascular damage in 396 people newly diagnosed with type 2 diabetes. They classified sleep duration into three categories: short (less than seven hours), optimal (between seven and nine hours), and long (nine hours or more), and identified those with microvascular damage by assessing specific markers in the blood and the presence of retinopathy.

> **"Evidence suggests the risk of diabetes-related complications is influenced by sleep quantity and quality"**

The researchers found that the proportion of people with microvascular damage was 38%, 18%, and 31% for short, optimal, and long sleep duration groups, respectively. Short sleep duration was linked with a 2.6-fold increased risk of microvascular damage compared with optimal sleep duration. Similarly, long sleep duration was linked to a 2.3-fold elevated risk compared to optimal sleep duration.

The risk of microvascular damage was particularly heightened in older people who didn't get enough sleep. Participants aged 62 years and over who slept less than seven hours had a 5.7 times increased risk of small blood vessel damage compared to people the same age in the optimal sleep duration group.

This suggests that older people with type 2 who tend to sleep less than seven hours a night may be more vulnerable to diabetes complications.

## Using voice to screen for type 2

About 30% of people with type 2 diabetes in England, or around one million adults, are undiagnosed. This could mean that these people cannot access the help and support they need in time to maintain their health and reduce the risk of complications.

Currently, the only way to diagnose diabetes is through invasive, time-consuming and costly blood tests.

So, researchers in Luxembourg developed and tested the performance of a voice-based AI tool to detect type 2 diabetes in adults.

The team asked 607 adults, diagnosed with and without type 2, to record themselves reading a few sentences of text. They then analysed these recordings to detect thousands of subtle changes in people's pitch or tone that help to distinguish those with or without type 2 diabetes. They combined this information with people's basic health data including age, sex, body mass index, and blood pressure in an AI tool.

They found that the AI tool showed a promising 71% accuracy in men and 66% in women in identifying people with type 2 diabetes. It was even better at detecting women with type 2 aged 60 or older, and people with high blood pressure.

Dr Abir Elbeji from the Luxembourg Institute of Health said: "Combining AI with voice technology has the potential to make testing more accessible by removing these obstacles. This study is the first step towards using voice analysis as a first-line, highly scalable type 2 diabetes screening strategy."

Dr Abir Elbeji

More research and tests are needed before this voice-based method could be used to screen for type 2 diabetes. The team is also working to improve the tool's accuracy and explore whether it could detect early-stage type 2 diabetes and prediabetes.

Dr Lucy Chambers, our Head of Research Communications, said:

"Using AI to develop convenient and cost-effective type 2 diabetes screening methods will help identify more people who need treatment and support, ultimately improving their quality of life and reducing their risk of long-term diabetes complications. We look forward to further research on innovative AI voice analysis tools for diabetes screening."

**Find out about more research findings from EASD 2024: diabetes.org.uk/bal-research**

## Study finds no link between gestational diabetes and breast cancer

Gestational diabetes occurs when pregnancy hormones make the body less sensitive to insulin. This is known as insulin resistance and results in high blood sugar levels.

Insulin resistance has also been linked to breast cancer. However, whether gestational diabetes increases the risk of breast cancer is contested in the research world, with some studies suggesting that it increases the risk, while others that it decreases the risk.

Dr Maria Hornstrup Christensen

Researchers from Denmark looked at data over a 22-year period on over 700,000 women who gave birth in Denmark. The researchers studied the women for nearly 12 years.

This study concluded that women who had gestational diabetes were no more likely to develop breast cancer than those without gestational diabetes. This was the case across all cancer categories: breast cancer overall, and pre- and postmenopausal breast cancer.

Despite this, lead study author Dr Maria Hornstrup Christensen said: "Women with gestational diabetes need to be alert to the fact that they are at higher risk of some conditions, including type 2. All women, regardless of whether or not they have had gestational diabetes, should be breast aware and check their breasts regularly for changes."

The study population was predominantly Caucasian, so we need further research into other populations and healthcare systems.

Words: **Mikayla Hu**. Photography: **Getty Images**

# Diabetes and menopause

**We're looking for ways to better support women going through the change of life**

We've listened to the experts – people with diabetes, healthcare professionals and academics – and heard loud and clear that there are big gaps in our understanding about managing menopause while living with diabetes. We're committed to putting this right.

Around three-quarters of women aged 40 to 59 years in the UK report that menopause has negatively impacted their diabetes management. But at the moment, the evidence needed to develop advice and support for managing the condition through menopause just isn't there.

That's why, in November 2023, we invited experts in women's health and diabetes, representatives from charities and funding bodies, and women living with diabetes who have experienced menopause, to a workshop. The aim was to pinpoint gaps in research and care, make suggestions on how to tackle them and identify unanswered research questions.

Dr Steven Parks, our Research Manager for the Diabetes Research Steering Groups, said: "We've known for a long time that we don't understand enough about the impact that menopause can have on women living with diabetes. This workshop was an important first step to inform our work in tackling this urgent issue with new research and grounding it in the lived experience of women."

Six priority research areas emerged from the discussions:

## Biological processes

As oestrogen levels drop during menopause, women can experience changes in their bodies, including becoming more resistant to insulin. And, if you already have diabetes, this can make managing your blood sugar levels more challenging during this time.

We need more research to help us understand exactly how menopause affects blood sugar levels. This includes the many biological factors that could play a role.

With the help of diabetes technology, like continuous glucose monitoring (CGM), we hope future research will reveal how hormone fluctuations affect blood sugar levels day in and day out, and in the longer term. Future studies should also explore how menopause can increase the risk of developing type 2 diabetes or worsen diabetes complications.

## Mental health

Managing diabetes can be exhausting and relentless, and this can put people with diabetes at a higher risk of developing depression and anxiety. Living with a mental health condition can make it even harder to manage blood sugar levels, creating a cycle of increasing diabetes distress.

Unfortunately, there isn't enough mental health support available for people with diabetes.

Menopause also increases the risk of depression and anxiety. Still, there's little research on how exactly it affects the mental health of women with diabetes or whether menopause-related mental health conditions contribute to the development of type 2 diabetes.

**"Women with diabetes find their insulin requirements are less predictable during menopause"**

We need research into effective ways to support the mental health of women navigating menopause with diabetes, which could include peer support and social prescribing. We also need to understand how women's experiences of mental health, diabetes, and menopause interact and change over time.

## Effective treatments

Hormone replacement therapy (HRT) can ease menopause symptoms and may lower the risk of developing type 2 diabetes after menopause. However, many doctors hesitate to

Words: **Mikayla Hu.** Photography: **Centre for Ageing Better, Getty Images**

prescribe HRT to people with diabetes due to concerns about potential heart risks, leaving some women with severe symptoms and a higher risk of anxiety, depression and diabetes-related stress.

Research is urgently needed to confirm that HRT is safe and effective for women with diabetes during menopause, including its impact on blood sugar levels. If HRT isn't suitable, research should be prioritised on other treatment options.

Technologies like insulin pumps and hybrid closed loop systems are used by many people to manage their diabetes. However, women with diabetes find their insulin requirements are less predictable during menopause, and current technologies aren't set up to deal with this.

We need more research to understand how insulin requirements change during menopause, how insulin doses should be adjusted during this time, and how diabetes tech can better support women with type 2 diabetes.

Being active is an important part of managing diabetes and has many health benefits, including increasing insulin sensitivity and improving bone health, both of which are affected by menopause. However, concerns about the impact of exercising on diabetes management, such as unstable blood sugar levels, can make it difficult to stay active, and currently, there are no exercise guidelines for women with diabetes during menopause.

We're calling for researchers to work with women experiencing menopause to identify and address exercise barriers. We also want to study how different types of exercise affect blood sugar levels and insulin resistance and see whether diabetes technology can empower women to get active.

## Diabetes, menopause and inequalities

Women from minority ethnic groups and lower-income backgrounds are at a much higher risk of developing type 2 diabetes. These women often face unique challenges in getting menopause care, like delays in diagnosis and lower use of HRT.

There's also a lack of understanding about whether the risk of developing type 2 diabetes after menopause is higher in these groups and how to address specific physiological factors that are more common in minority ethnic groups.

The quality of menopause care is still inconsistent across the UK, especially for women from minority ethnic groups backgrounds, who are less likely to get the support they need. Researchers should work more closely with these women to understand their experiences, identify the barriers to good healthcare they face, and develop culturally appropriate care for them.

## Better support for healthcare professionals

Only 59% of UK universities offer mandatory menopause training as part of medical degree programmes, and current clinical guidelines do not cover menopause in the context of diabetes. So, it's not surprising that over one-third of GPs in the UK report feeling unconfident in supporting women through menopause and that people often experience delays in diagnosis and poor care.

To tackle these issues, we need research to explore what healthcare professionals need to better support women with diabetes going through menopause. This could include guidelines for consultations, educational materials, and menopause training programmes.

## Joined-up care

Diabetes care usually involves a team of specialists. But menopause support is often not included, leading to disjointed care for women with diabetes.

There are valuable lessons to be learnt from existing diabetes and pregnancy programmes that bring teams of experts together to provide women with personalised and holistic care. We'd like to see a similar approach for menopause care. We'd also like to see more diabetes and menopause specialists work together to provide one-stop clinics and women's health hubs.

Trudi Evans, who lives with type 1 diabetes and attended the workshop, told us: "While some important research has been undertaken, huge gaps remain, and perhaps a more coordinated approach might be more productive.

"I hope a better understanding of this double challenge experienced by many women will lead to change sooner rather than later."

# ASK THE EXPERTS

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

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

**Q We recently joined a support group for families of children with type 1 after our son, aged nine, was diagnosed. Chatting with other parents, it seems that some are claiming various allowances to help with additional costs, but some people say you can't claim anything. Are children with diabetes eligible for benefits?**
**Olivia, Carshalton**

**Douglas says:** The benefits system in the UK can be very confusing. Although we, at Diabetes UK, cannot say whether you or your son are eligible for particular benefits, we can provide some general information to help you decide whether it might be worth making a claim.

Although you may not think of your son as having a disability, as he needs daily insulin, his diabetes is classed as a disability when applying for benefits. The main disability benefit for children and young people under 16 in England, Wales and Northern Ireland is the Disability Living Allowance (DLA). This has two components covering care and mobility, and children may be eligible for one or both. Each component is paid at different rates, and the levels are based on the child's needs. In Scotland, the Child Disability Payment can be claimed for children and young people under 18.

The main criteria for claiming the DLA is whether your son's diabetes means he needs much more looking after than a child of the same age who does not have a health condition or disability. It also takes into account any mobility issues.

To most parents whose children have diabetes, it would seem obvious that their son or daughter needs more support than a child without diabetes. However, the level of support your son needs determines whether he is eligible for the DLA, not his health condition itself.

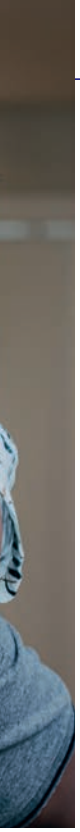
This can contribute to the confusion around eligibility, as two children with the same health condition may need very different levels of support.

If you want to look into claiming the DLA for your son, we suggest you get advice from a welfare benefits adviser or someone with experience in completing the application form. They will help you decide if a claim might be accepted and may assist with how to describe your son's needs to ensure he is awarded the right level of DLA. They can also help with advice on what information to collect to support your claim – for example, a diary where you record the amount and type of care your son needs every day and night. Charities such as Scope and Contact usually have detailed information on this.

Completing the application form can be time-consuming and emotionally challenging.

Although we cannot provide help completing the DLA form, our Helpline staff can take the time to talk things through and explore any emotional, social or psychological difficulties you are having: **0345 123 2399**

**To find out more, go to: diabetes.org.uk/bal-benefits**



Photography: Getty Images
PLEASE NOTE: The experts can't take phone calls

**Q After being able to manage his type 2 with metformin for many years, my dad has had gliclazide added to his prescription. Ramadan has always been very important to him, but I'm worried about whether fasting might be harmful to him.**
**Faisal, Birmingham**

**Esther and Nazim say:** We know that many Muslims look forward to the month of Ramadan and making the most of all the opportunities that it brings. However, when it comes to fasting though fasting is an obligation, the Qur'an does specify those who can be exempted. One of these exemptions is for people who are ill or have medical conditions and this can include people living with diabetes due to the increased health risks of fasting.

Before your father decides to fast, we recommend that he speaks to his healthcare team about how he is currently managing his diabetes. These conversations should help your father to understand how fasting could be a risk to his health, how to reduce any potential risks, or whether the risk to his health is too high.

If your father is not able to fast, we suggest he speak with his Imam to get further advice about alternative ways to observe and gain the benefits of Ramadan. These might include offering charity or providing food to those experiencing poverty.

Ultimately, it's a personal choice whether or not to fast. However, if your father does choose to fast it's important that he speaks with his healthcare team so that he has a plan for keeping safe and healthy. For people with diabetes, the main risks associated with fasting are:

### Low blood sugar ("hypos")

People who take certain tablets like the one your father has been prescribed called gliclazide, which is a sulfonylurea, or use insulin to manage their diabetes are more at risk of low blood sugar levels when fasting. So, your father should test his blood sugars regularly through fasting or if he feels unwell, and ensure he knows the symptoms of a low blood sugar. Checking blood sugar will not break his fast. If his levels drop below 4mmol/l, he will need to break his fast and treat it as he usually does. Otherwise, he will harm his body and may need medical attention.

### High blood sugar ("hypers")

High blood sugar levels during a fast can occur if you miss your usual prescribed medication, you have larger portions of starchy or sugary foods, or you're less physically active than usual. High blood sugar can increase your risk of dehydration, which can make you feel dizzy and tired. Before choosing to fast, your father should ask what a high blood sugar level is for him. If he goes above that level during fasting, he must break the fast by drinking water and seek medical advice.

### Dehydration

The long periods without water as part of fasting puts people with diabetes at greater risk of dehydration.

Dehydration can also cause blood sugar levels to rise. So, it is important to drink plenty of water or sugar-free fluids – especially water – before and after fasting.

### Medication

Your father should also discuss with his healthcare team whether his medication doses should be adjusted if he's fasting. It's very important that your father does not stop or change the amount of medication he's taking without advice from a healthcare professional, such as his GP or a pharmacist.

It is also important for him to be aware that whether he can fast with diabetes may change from one year to the next, especially if his diabetes management changes. So, even if he is advised not to fast during Ramadan in 2025, this can be reviewed every year.

**Answer produced in collaboration with Dr Nazim Ghouri, consultant physician in diabetes, endocrinology and general medicine, Queen Elizabeth University Hospital, Glasgow; and British Islamic Medical Association.**

**FURTHER ADVICE AND GUIDANCE:**

BIMA BRITISH ISLAMIC MEDICAL ASSOCIATION

- **The British Islamic Medical Association (BIMA): britishima.org**
- **The Muslim Council of Britain (MCB): mcb.org.uk**

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

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

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

# KNOWING THE SCORE

Janice Watson, 60, was a budding musician when she was diagnosed with type 1 diabetes at the age of nine. She reflects on a career of highs and lows

When soprano Janice Watson used to stand on stage, performing to adoring crowds at the world's major opera houses, she would experience a unique feeling.

"There's no word for it in English," she says. "But it's when, as a performer, your soul is free. It's like you're soaring – it's very empowering, and it feels joyful."

For Janice, who lives with type 1 diabetes, performing posed unique challenges.

"I always tried to go on stage with my blood glucose around 7mmol/l, wary that there was a chance it might drop and I'd have a hypo," she says. "But when I came off stage, it was always around 16mmol/l because the adrenaline from performing would make it go up.

"With diabetes, you never get a reward for all the work you put in each day. Your 'reward' is staying alive and coping with whatever life throws at you."

Musical from a young age and able to play by ear, Janice was a budding flautist when she was diagnosed with type 1 diabetes at age nine.

"Diabetes treatment has come on in such a huge way, but in the early years of fixed insulin regimens and urine tests, it was very difficult to manage," she says. "And without the flute and the companionship of music, diabetes would have been much harder.

"When I was in hospital, having just been diagnosed, I was told that there would be a cure in about five years – well, I'm still waiting!"

In her teens, Janice was introduced to renowned opera tenor Phillip Langridge, who encouraged her to develop her talent. A youth orchestra conductor, Adrian Brown, then helped her start to believe in herself as singer.

After studying at the Guildhall School of Music and Drama in London, she won the Kathleen Ferrier Award and the Royal Overseas League, which launched her into the upper levels of the singing profession.

"I wanted to be a flute player, but I have a very bad astigmatism and was hopeless at sight reading music, even with glasses," says Janice. "I was persuaded that I'd have more chance of success as a singer. Diabetes was always there, of course. I needed to keep an eye on it constantly."

Today, Janice has enjoyed an illustrious career spanning decades, having performed in most of the world's major opera houses, including Covent Garden in London, Metropolitan Opera in New York, San Francisco, Vienna, Paris, Hamburg, La Scala Milan, Sydney and Beijing. She has been a regular guest with both the English National Opera and the Welsh National Opera.

Janice says that the effects of adrenaline when she was performing generally pushed her blood sugars up, so she never had a hypo on stage.

"As a performer, your soul is free... it's very empowering, and it feels joyful"

"I used to feel quite angry about the fact that I'd come off stage and my blood sugars would inevitably be high. I'd think, 'that's more potential problems and complications in the future.'"

While exhilarating, jetting around the world wasn't without its challenges.

"Although it sounds wonderful to be flown to Kuala Lumpur or New York – and it was very exciting – you have to be a certain kind of person to handle that mentally," Janice reflects.

"I'm not a diva. I'm a very homely, working class lass who found that being in these environments could be very daunting. And no matter where I was in the world or what I was doing, I always had to allow for diabetes. Sometimes, it was the small things that could be most challenging. I remember being in China and ordering food that was so different from anything I'd ever eaten before. I had no idea how many carbohydrates it might have. You always have to plan ahead and there are so many decisions you have to make to manage your condition and stay well."

Three years after she won a Grammy for Best Opera Recording for Britten's Peter Grimes in 1999, Janice gave birth to daughter Hannah.

"It wasn't an easy journey. For any new mother, having a baby is an overwhelming experience, but she was six weeks early, and her birth was very traumatic," she remembers.

"But I wanted to keep performing, and when my daughter was three months old, I landed a contract to work in San Francisco. We were on a plane to the States in September 2001 when it suddenly turned round halfway across the Atlantic because the Twin Towers had been hit. I eventually got to the US a fortnight later, but as time went on, things got more challenging. As a parent, there were so many new pressures, and there was just no time to relax. Being an opera singer didn't work well around having a child, but I did my best, and I'm so grateful that I have the most wonderful daughter."

Around six years ago, Janice's career began to slow down. She was working as a part-time vocal tutor at the University of Chichester when the pandemic hit.

"I was teaching for half a day a week, and suddenly I was in a position where I couldn't earn any money," she says. "I got no help whatsoever from the government and as restrictions eased, I

**Life on and off the stage: On breaks from performing around the world, Janice took time out with family. Pictured with her husband, daughter, and late mum**

Photographer: **Neale Haynes.** Styling: **Kellie Daggett.** Hair and make-up: **Charlotte Gaskell at LHA Represents**

## A CURE FOR TYPE 1

Immunotherapies are designed to interact with the parts of the immune system responsible for wiping out beta cells in type 1. Scientists are testing different types of immunotherapies, which all work in slightly different ways, to try to prevent or slow down the immune system's destruction. This would help people to keep on making their own insulin.

One immunotherapy drug, called teplizumab, has been shown to hold off the onset of type 1 in people who don't yet have the condition, but are on the path to developing it. A decision is expected soon on whether it should be made available in the UK. With continued research, this holds enormous promise for the prevention, treatment and cure of type 1 diabetes.

Scientists are also learning how to create new beta cells from stem cells, and clinical trials are testing whether these cells can be transplanted into people with type 1. If successful, this could allow people to produce their own insulin again.

Here in the UK, the Type 1 Diabetes Grand Challenge – our partnership with Breakthrough T1D and the Steve Morgan Foundation – is supercharging progress in immunotherapies, beta cell therapies, and superior new insulins. Read about the latest projects we've funded on page 12.

**Janice talks about experiencing difficult times. If you'd like to speak to a trained advisor about any challenges you are facing, call 0345 123 2399.**

started working at my local garden centre to make ends meet. Then, my mum died. It was probably the worst time of my life.

"Diabetes just tags along with it all. It's very easy to get pulled down by its challenges and feel sad for yourself, but it's a waste of energy. After all these years, I feel that while you must respect diabetes, it's just not been possible for me to get the perfect balance. I can't change the past and all my high blood sugars and the damage that's potentially been done. Staying on top of your condition is important, but you need to find a space where you're respecting your diabetes, but it's not controlling you."

Today, Janice juggles work commitments with caring for her father, who lives with dementia. She manages her diabetes with multiple daily insulin injections and a FreeStyle Libre 2 glucose monitor. Her diabetes doctor recently asked if she'd consider a hybrid closed loop system, where an insulin pump and a continuous glucose monitor (CGM) 'talk to each other' through a computerised algorithm on a smartphone or inside the pump. Some insulin doses are adjusted automatically in response to blood sugar levels, which are monitored all the time by the CGM.

"My concern with hybrid closed loop is that I might become a little bit obsessed by my numbers," says Janice. "I feel I have to allow my diabetes to be a little bit free.

"While I absolutely despise diabetes and would get rid of it if I could, I have gained strength from its challenges."

Janice hopes that the cure doctors had assured her was imminent all those years ago will one day be a reality.

"That breakthrough might be immunotherapies," she says. "That would be a fantastic leap forward for youngsters of today."

**For more info on the latest Type 1 Grand Challenge research, see page 12.**

# STAYING WELL THIS WINTER

**Expert advice on protecting your physical and mental health during the cold weather**

## Winter illness

As temperatures fall, we're likely to spend more time indoors, making it easier to catch viruses like colds, flu and Covid. Getting ill can make managing blood sugar more difficult.

The body releases more sugar into the blood during illness, even if you're not eating as you usually would. This is a defence mechanism against illness, and it happens whether you have diabetes or not.

People without diabetes will produce more insulin to compensate. But people with diabetes aren't able to do this, and they may find that their blood sugar levels rise.

If you're unwell and have certain symptoms like vomiting and diarrhoea, your blood sugars can drop as you're not absorbing food as usual.

'Sick day rules' can help you manage your diabetes when you're unwell or help you look after someone with diabetes you care for. If you don't already have information on how to manage your diabetes when you're unwell, speak with your healthcare team. We also have information about diabetes and illness on our website: **diabetes.org.uk/bal-illness**

Photography: **Getty Images**

## Managing your diabetes when you're unwell

**It's important to speak with your healthcare team and ask for your own sick day rules:**

- Don't panic – contact your diabetes team, which will help you.
- Keep taking your diabetes medications – even if you don't feel like eating. But there are some medications that you shouldn't take as much of or you should stop taking altogether. Ask your diabetes team or speak to a local pharmacist as soon as you feel ill for advice.
- Insulin may need to be increased or decreased when you're unwell. Your diabetes team can advise on managing your insulin doses during illness.
- If you check your blood sugars at home, you'll probably need to do it more often – at least every four hours or as advised by your healthcare team, including during the night. If you don't test your blood sugars at home, be aware of the signs of a hyper (hyperglycaemia).
- Stay hydrated – have plenty of unsweetened drinks and eat little and often.
- If you have type 1 diabetes, it's important to check ketone levels if your blood sugar levels are above your target range (usually above 14mmmol/l) and as advised by your healthcare team. Regardless of what your blood sugars are saying, if you're sick, test for ketones and you find them, contact your healthcare team.
- If you take a certain type of diabetes tablet called SGLT2i and become unwell with an illness or infection, you should temporarily stop taking these – speak to a healthcare professional if you are not sure what to do. You need to check your ketones and your blood sugars (if you've been told to do this and have the kit), and speak to your healthcare team. Taking these tablets when you're not very well could increase your risk of developing diabetic ketoacidosis (DKA).
- If you don't have a ketone monitor and ketone strips, your healthcare team can supply one for you. If you do have a monitor, periodically check your strips are in date. Keep them on your repeat prescriptions list so you can order new strips whenever they're close to their expiry date.
- Keep eating or drinking – if you can't keep food down, try eating little and often. Try snacks or drinks that contain carbohydrates to give you energy. Try to sip sugary drinks like fruit juice or non-diet lemonade or cola, or suck on glucose tablets or sweets like jelly beans. If you are being sick, letting fizzy drinks go flat may help keep them down. If you're still not able to keep any fluids down get medical help as soon as possible.
- In some circumstances, you'll need to get medical advice or go to hospital as soon as possible. This is the case if you're vomiting.

Seek urgent medical attention if you're vomiting persistently and you can't keep fluids down, if you're pregnant, if you become drowsy or breathless, if you have abdominal pains, or if you have ketone levels above 3mmol/l or above the target set by your diabetes team, or ketones that haven't reduced or gone after following your sick day rules advice.

**"Sick day rules can help you manage your diabetes when you're unwell or help you look after someone with diabetes you care for"**

**SYMPTOMS OF DKA. Seek urgent medical help if you have any of these:**

- high blood sugar levels
- being very thirsty
- needing to pee more often
- feeling tired and sleepy
- confusion
- blurred vision
- stomach pain
- feeling or being sick
- sweet or fruity-smelling breath (like nail polish remover or pear drop sweets)
- passing out

**"People with diabetes can become more unwell when they have certain types of illness like flu and Covid, and you might be unwell for longer," says our Senior Clinical Advisor, Katie Bareford.**

**To help protect from illnesses such as food poisoning and the flu, make sure to wash your hands regularly and try to avoid other people if they're ill.**

**You're also entitled to certain jabs, like the flu and Covid vaccines if you have diabetes, and getting both of these is the best way to protect yourself.**

## Climate control

In the cold, blood vessels in your skin, fingers and toes narrow to prevent heat loss and keep vital organs like the heart working. This can put pressure on your body, causing your heart to beat faster and your blood pressure to go up. These responses are normal, but if you're living with diabetes complications, like heart disease or severe pain (neuropathy), cold weather can make these conditions worse.

The effects of cold weather on blood flow to the fingers can make it harder to draw a drop of blood for finger-prick checks.

Before checking, you may need to warm your hands by holding a warm drink or wearing gloves. If you have neuropathy in your hands, you may find it hard to tell how warm things are, so don't hold a hot cup to warm your hands, and if you use hand warmers, check that they are suitable for you – ask your diabetes team for advice if you're unsure.

Keeping your house warm can help prevent serious health problems like heart attacks and strokes.

The NHS and World Health Organization recommend keeping your home at least 18°C to prevent cold-related health issues. Check the Citizen's Advice website to find out if you're entitled to any help with your bills or grants to improve the energy efficiency of your home.

You might be able to prevent some heat loss from your home by closing

Photography: Getty Images

curtains as soon as it gets dark and using draft excluders. Closing windows and internal doors can help.

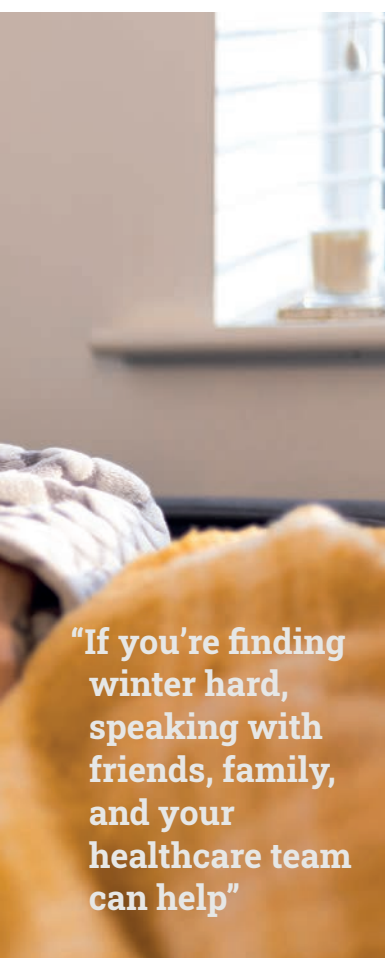
Layering up and using hot water bottles, blankets, thick socks and slippers will help you feel cosier, but take care if you have neuropathy – you might not realise when your feet are getting too hot and starting to burn. Don't fill hot water bottles with just-boiled water, and be sure to use a cover and remove from your bed before getting in. If you have an electric blanket, turn it off before getting into bed and test your bath water with an elbow before you get in. Make sure you check your feet every day for signs of damage.

If your home is simply too cold for comfort, check for any public 'warm spaces' nearby. Community buildings like libraries become 'warm spaces' in winter, providing somewhere to relax and have a warm drink: **warmwelcome.uk**

Eating warm, nourishing foods like soups, casseroles and curries can also help you feel warmer. Visit: **diabetes.org.uk/bal-recipes**

You may be tempted to drink alcohol to warm you up, but this makes blood vessels widen, causing your body to lose heat.

Being active – climbing the stairs a few times or doing household chores – can boost your circulation and keep you warm. It can also help you manage your blood sugar. Getting outside for a walk will get your blood flowing, and might help boost your mood. Check with your healthcare team before starting any new physical activity.



"If you're finding winter hard, speaking with friends, family, and your healthcare team can help"

## Getting support

- Getting an appointment with your GP can be hard when demand is high.
- Lots of surgeries offer apps and websites where you can submit queries, order repeat prescriptions and request appointments. Make sure you're registered to access online services.
- Be as specific as possible when completing online consultation forms and say if a problem is urgent. You may be offered phone or video appointments, but most GP appointments still take place face to face.
- If you need medical advice out of hours, or you can't get hold of your GP, call NHS 111. Depending on your GP, you may be able to book appointments via 111 under new NHS plans.
- "Pharmacists can offer advice on a range of different illnesses including coughs, colds and sore throats, and can also advise you on medications," says Katie. "If you have diabetes and you're not sure how to take your medications when you're unwell, they'll be able to answer your questions."

## Keeping your spirits up

It's not unusual to feel down during the cold, dark days, especially if life is more stressful due to the cost-of-living crisis.

If you're finding winter hard, speaking with friends, family and your healthcare team can help. If you want to connect with other people with diabetes or who are caring for people with the condition, try our online forum: **diabetes.org.uk/bal-forum**

# A NEW STANDARD OF CARE

**CGM technology has transformed the way many people with type 1 diabetes manage their condition, but more people living with other types can also benefit from access. Our Senior Policy Officer, Anthony Walker, explains what the future could hold**

Continuous glucose monitoring (CGM) has transformed the lives of many people living with diabetes by reducing the need for multiple finger pricks to check blood sugars throughout the day. CGM, also known as Flash, can either be real time (rtCGM) or intermittently scanned (isCGM).

This small sensor that sits on your body – usually your upper arm – and reads glucose levels at frequent intervals throughout the day, is now used by an estimated 90% of people with type 1 diabetes in England and Wales. But there is still a way to go before people with type 2 who can benefit from CGM have broad access.

As well as easier regular monitoring, alarms can be set on CGM to let you know when sugar levels are going too high or too low. The technology can also give a more detailed picture of glucose patterns, to identify trends over a longer period.

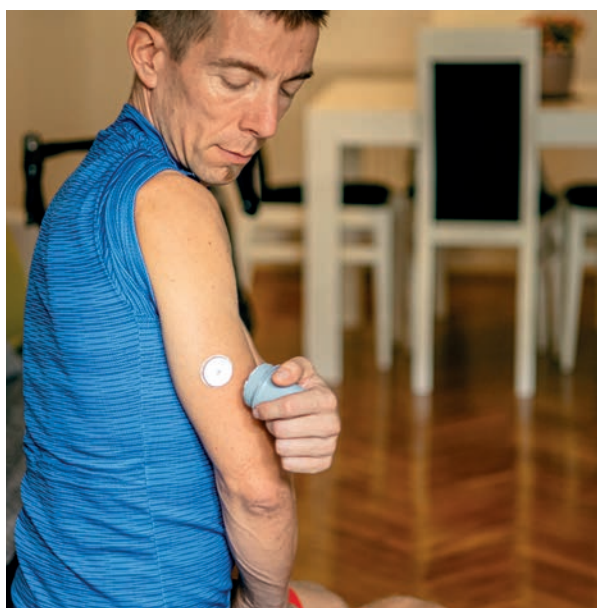
This isn't to say that CGM is for everyone or there aren't challenges with the technology. Some people prefer not to use it because they're comfortable with their existing monitoring system, and some people who use CGM have mentioned issues with alarm fatigue and skin irritations caused by the sensor adhesives. There can also be issues around people's confidence in accessing the technology.

Despite these hurdles, CGM is here to stay, and the conversation around how to optimise CGM as the technology develops is ongoing.

> **"CGM is here to stay, and the conversation around how to optimise CGM as the technology develops is ongoing"**

The National Institute for Health and Care Excellence (NICE) recommended rtCGM for all people with type 1 diabetes in 2022, and the Scottish Intercollegiate Guideline Network (SIGN) followed shortly after.

Photography: **Getty Images, Chris Bracewell**



## KEN'S STORY

**Ken Tait was diagnosed with type 2 diabetes in 1999. He says:**

In 2019, I asked about CGM and was told that as someone with type 2, I wasn't entitled to it on the NHS. But I was struggling to manage my levels and I'd started to develop diabetic retinopathy. I decided to self-fund and within 10 weeks, my diabetes was better managed than in the previous 24 years of struggling.

Since then, I've kept my HbA1c below 49mmol/l, improved all my blood markers, cut my insulin usage by 90% and lost 26kg in weight. CGM is a game changer for people with type 2 if you use the data to make changes.

Realistically, nobody can finger prick every 15 minutes, 24 hours a day, and this is the data that CGM gives you, even when you sleep. It's taken a lot of the stress out my diabetes management. With a quick scan, I can exercise or take insulin if my levels need adjusting, and on holiday I don't have to worry too much about the disruption to my routine as I can quickly see and respond to blood sugar changes.

## WHO'S ELIGIBLE?

**If you live in England, Wales and Northern Ireland:**
**Adults with type 2 diabetes who use two or more insulin injections a day should be offered CGM if any of the below apply:**

- They have recurrent or severe hypos.
- They have impaired hypo-awareness.
- They have a condition or impairment (including a learning disability or cognitive impairment) that means they can't monitor their own blood sugar but could use a scanning device, or someone else could scan for them.
- They would otherwise be advised to do a finger-prick test at least eight times a day.

**Adults with type 2 diabetes should also be offered CGM if they use insulin and would otherwise need help from a care worker or healthcare professional to monitor their blood sugar. (NICE, 2022)**

**Children and young people aged 18 or under with type 2 diabetes should be offered a continuous glucose monitor (CGM) if any of the following apply:**

- They have a need, condition or disability (including a mental health need, learning disability or cognitive impairment) that means they cannot monitor their blood glucose by finger-prick testing.
- They would otherwise be advised to self-measure at least eight times a day.
- They have recurrent or severe low blood sugar levels.
- CGM should also be considered as an option if they are using insulin. (NICE, 2023)

**In Scotland, people who manage their diabetes (including type 2) with multiple daily injections or insulin pump therapy should have access to intermittently scanned (or Flash) glucose monitoring. (Scottish Health Technology Network, 2018)**

## Life-changing access

Today, there is greater focus on making CGM accessible to groups outside those with type 1 diabetes. Current guidelines recommend CGM for people with type 2 diabetes who use more than one insulin injection a day and meet other criteria for their self-management (see box on page 31). But data from our Diabetes Tech Can't Wait campaign shows that over 80% of local integrated care boards in England have adopted CGM policies for type 1 diabetes in line with NICE guidance, compared to just over half for type 2. This means that many people with type 2 who use insulin and need to carefully manage this alongside their food intake are too often unable to access a tool that can be truly life changing.

People with type 2 and other types of diabetes who have been able to access CGM have expressed the positive effect it has had on their self-management and quality of life. Even those people who feel they had a good level of confidence managing their insulin treatment before they started to use CGM said they found the technology provided a fuller, more detailed view of their glucose levels.

This helped them to make daily adjustments with more ease and accuracy. For those who were having difficulty with self-management, the tech helped them to understand their condition better and provided them with more knowledge on how to manage their diabetes.

## Changes on the horizon

As well as the positive personal experiences of CGM users, there is a growing base of evidence from research trials showing the benefits of the tech for more people with type 2, beyond those who meet the criteria set out in current national guidelines. Most of the research has focused on people who use insulin, but there are also studies looking at how CGM can help people taking other medication or those who have been newly diagnosed to better understand and manage their condition.

Ongoing barriers to accessing the technology include lack of education and resources. One issue is that many people with type 2 diabetes are seen in primary care. Unfortunately, there are varying levels of confidence and capacity to start and support people using technology.

Many people with type 2 have had to advocate for themselves and, at times, self-fund to get CGM. To help widen access, there needs to be more training for healthcare professionals to help them become familiar with the benefits of the technology and be supported to provide it, along with training on how to interpret and use the data that CGM provides.

There also needs to be a sustained focus on tackling the effects of stigma and the health inequalities that mean some people feel disempowered to advocate for themselves or cannot afford self-funding. However, with strong advocates and the collective efforts of the diabetes community, more people than ever should be able to benefit from CGM.

## CHARLIE'S STORY

**Charlie Churchill, 69, has had type 2 diabetes for 35 years. He was offered CGM in late 2022 after over 30 years living with diabetes. He says:**

I use insulin and oral medication. I was diagnosed in 1989, and I've been taking insulin since 2005. I've known about CGM for quite some time but in the context of type 1. I became eligible for CGM in late 2022. I was absolutely thrilled yet also slightly nervous of applying this gadget to my arm.

I shouldn't have worried, as I can't feel it at all and often don't even know which arm I've applied it to. Before, on a typical day, I would have four fingerprick checks. Now I can see that pattern of my 'diabetes day' in real time and make educated decisions about administering insulin, which can be tricky to judge.

CGM gives me so much confidence, and it's convenient. Your healthcare professional can see your numbers and trends just like you do, which brings a whole new dimension to your diabetes review.

The CGM enables me to make lifestyle changes to prevent unwelcome situations, allowing you to make lifestyle changes to prevent unwelcome situations.

I've experienced early signs of hypos in football stadiums, travelling on trains, and often during the night. Thank heavens the CGM alerts me, enabling me to take corrective action.

Checking my sugars before driving is far simpler too. I think every person with type 2 taking insulin deserves a CGM as they are the ones at increased risk of hypos.

## MARK'S STORY

**Mark Tiller has had type 2 diabetes for 25 years and funds his own CGM. He says:**

Using CGM means that I can now see how my food intake affects my blood glucose level. I can fine-tune my insulin to help me to be within target range and I appreciate the alarms which notify me when I am going high or low. It's great to just be able to see what is happening inside my body.

"I no longer need to finger prick multiple times a day and have my fingertips back. The biggest change is that I can sleep at night knowing that my CGM will let me know if I am going too high or low. In my opinion, everyone with diabetes should have a CGM, or at least those who take insulin, to help manage their condition and try to avoid diabetes complications.

# FREE YOUR MIND

Meditation can be a useful tool to help deal with the difficult thoughts and feelings that living with diabetes can bring. Patrick Gravett-Curl, certified Conscious Connect Breathwork Facilitator, explains its benefits

"There are different types of meditations you can practice, but the premise is the same. You usually use the breath or a sound to anchor yourself to the present moment," says Patrick. "I practice the 'mindfulness of breathing,' which means using the breath as something to concentrate on and stay in the present moment. It's about turning inwards, having an awareness of your body and using it as an anchor to unhook from intrusive thoughts and anticipation about the future."

You may have to try a few different methods of meditation to see which one resonates with you.

## Getting started

Thanks to the accessibility of apps like Headspace and Calm and free guides and sessions on YouTube, you don't need to go to a class to meditate.

"You can meditate anywhere, even when you're out walking or running. An app like Calm or Headspace is really helpful when you're starting out," says Patrick.

"Having someone guide you means you don't have to think too much, and you can just follow their lead."

## When should I meditate?

"It's best to practice little and often, 10 minutes a day can make a real difference," says Patrick. "It's all about making manageable habits, like doing 10 minutes of meditating in the morning. You'll get into that habit instead of reaching for your phone, like many of us do, and being bombarded by information first thing."

It's important you sit or stand in a calm, quiet place where you can close your eyes and focus your attention on your breathing and observe your body. You may want to seek out a class or find somewhere you can go to be completely present. Perhaps a friend or family member could go with you if you're feeling nervous about trying something new.

The NHS has free guided meditations on its website and more information about what it is and how to get started. Visit **www.nhs.uk/every-mind-matters/mental-wellbeing-tips/how-to-meditate-for-beginners/#guided-meditations**

For some people, meditating just before you go to sleep can help you unwind from the day. For others, meditating first thing can help set you up for the day and can make you feel prepared and calm.

## What are the benefits of meditating?

Some recent studies suggest that meditation or mindfulness helps people manage anxiety, stress and depression. Meditation can also improve sleep quality and shorten the time it takes to go to sleep. Meditation can release physical tension held in the body and bring a sense of calm and ability to deal with and respond to emotions in a healthier way. Speak with a healthcare professional if you're struggling with anxiety or distressing thoughts or are having trouble sleeping.

Patrick says, "Meditation allows me to be kinder to myself and unhook from old thought patterns and almost reprogramme my mind. I can step into a more positive version of myself."

## Practice makes perfect

Meditating is a skill you can improve over time. There are always new methods to learn and things to find out about yourself.

**"It's important you sit or stand in a calm, quiet place where you can close your eyes and focus your attention on your breathing"**

"The more you practise meditation, the more natural it will feel," says Patrick. "When you start to integrate your practice into your daily life, it will become part of your routine. Having that time for yourself is really important, and the benefits of meditation will spill out into other aspects of your life."

## AND RELAX...

**Try Patrick's short meditation and breathing exercise and see what you think. You may want to record this on your phone or another device and play it back so you can really relax into it.**

**Short meditation/ breathing exercise:**

- Find a comfortable, upright seated posture in a quiet space where you won't be disturbed.
- Close your eyes and turn your attention inwards. Allow your shoulders and jaw to relax and soften the muscles in your face.
- Take a nice deep breath in through your nose and fill up your belly like a balloon. Now, exhale slowly through your mouth, letting go of any tension. Repeat twice.
- Now let your breath return to its normal rhythm, in and out through the nose. You can place one hand on your belly and one hand on your chest if you wish.
- Feel the weight of your body in your bones and imagine melting into the seat.
- Check in with how you're feeling. Allow all thoughts and sensations to be there – not pushing anything away.
- Once you've done that, tune into the subtle sensations of where you feel the breath the most. That might be the cool air coming into the nostrils and the warm air leaving. Or you might feel your belly/ribcage moving outwards and inwards.
- Be aware of the inhale and then the exhale – ideally, breathing into your belly rather than your chest (this helps us to relax).
- Each time your mind wanders, gently bring it back to the sensation of your breath.
- After a minute, gently and slightly deepen your breath to expand it throughout the body, bringing more of your body into your awareness.
- Imagine your whole body can breathe. After a minute, let go of your control and awareness of the breath.
- Simply notice how you feel right now, without judgement.
- When you are ready, gently open your eyes and allow yourself to take this awareness and calmness into your day.

Words: **Gabriella Taylor.** Photography: **Getty Images**

## LUCAS' STORY

**Lucas, 25, from Hertfordshire, was diagnosed with type 1 diabetes in 2014. He says:**


I got into meditation during lockdown. I started having more anxiety and felt very overwhelmed, so I was looking at ways to help manage those feelings. I held a lot of stereotypes about meditation and who it's for, but now I realise it's very accessible.

I downloaded the Calm app and used it until I got more confident at meditating. Now, I do about 5 or 10 minutes a day.

Meditation helps me stay present and not get overwhelmed by thoughts. It's been really valuable and something I've used to help with my overall mental health. It helps me focus on things that I can control rather than getting engulfed in thoughts and things that I can't. It's a mental reset and helps me stay present.

With diabetes, you have to be very prepared and plan a lot. Meditation helps calm my mind so I don't get overwhelmed by those thoughts. It helps me prevent diabetes burnout and manage that anxiety. During Covid, I struggled a lot with the uncertainty of everything, and meditation helped me focus on what I could control.

Having a guide or something to follow at the start of your meditation journey is very important. It's not for everyone, but there are lots of different methods and ways to meditate, so be open-minded, explore and see what works.

# MAKING IT WORK

We've campaigned successfully to stop employers from banning people with diabetes from applying for roles, and in most cases, living with diabetes shouldn't hold you back from having a fulfilling or demanding job.

Blanket bans have now been lifted for people with diabetes who use insulin and work in the emergency services. Today, those applying for jobs in the emergency services are considered on an individual basis. People should expect to be fairly assessed by someone who understands the role and how diabetes is managed.

The UK armed forces are exempt from the Equality Act and have a blanket ban on employing people with diabetes, but if you're diagnosed while you are a serving member of the armed forces, you will not automatically be discharged, and your case will be reviewed by experts.

We know that most people can manage their diabetes so it doesn't affect their work. This takes careful planning and resourcefulness. It can mean taking medication at specific times and checking blood sugars throughout the day. Reasonable adjustments and flexible working options can make it easier to manage your diabetes at work.

Here, we hear from four people about how diabetes has shaped and impacted their working lives.

Photography: **Andrew Hasson**


Record-breaker Douglas has flown around the US to talk about being a pilot with diabetes

# "At 50, I nearly started flying commercially"

**Pilot Douglas Cairns, 61, from Hove, East Sussex,**
**has type 1 diabetes and campaigns to allow insulin-dependent pilots to take to the skies. He says:**

I was an RAF cadet while studying at university and was fast-tracked into officer training when I graduated. As soon as I was qualified, the RAF wanted me to train other pilots, which was slightly disappointing as I wanted to be flying off on exciting missions. But I dutifully went to North Yorkshire to start my new role.

It was here, when I was 25, that I started feeling tired, drinking lots of water and weeing a lot. I knew I should go and see a doctor, but I ignored it. Instead, I went with the RAF ski team for a three-week training trip. I lost two stone in weight, and I knew then it was time to seek medical help.

The doctor diagnosed me on the spot after a blood sugar test, and he didn't pull his punches. His exact words were: 'You *are* a diabetic. You *were* a pilot.'

I was devastated. At that time, insulin-dependent pilots were not allowed to fly anywhere in the world. It was a bitter blow. I was in hospital for 10 days and given two books to read on diabetes management.

It really helped me get my head around my diagnosis. I realised that while diabetes was a serious medical condition, it was also something that could be managed. Even so, I didn't tell people for eight years because I didn't want them to think differently of me or feel sorry for me. It took a couple of months of trial and error with my diet before I gained more confidence around my diabetes. I was really fortunate that I was able to manage my diabetes effectively.

I decided to leave the RAF, and in my final weeks, I went with the British Combined Services Ski Team to Australia to compete. It made me realise that I could just bash on.

I got a job in finance, which I enjoyed, but I never lost my love of flying. In my early 30s, I would occasionally fly under the watchful eye of an instructor. It was bittersweet as I loved doing this, but it was a reminder of what I was not allowed to do freely. Once a year, I would call the medical department of the Civil Aviation Authority (CAA) to tell them that I was managing my diabetes well and asked if I tested my blood sugar levels before and during a flight, would they consider changing their policy on not letting insulin-dependent pilots fly? However, the answer was always the same: no. One doctor bluntly told me not to bother phoning back.

Then, in 1997, America introduced a system for private pilots with diabetes. When I discovered this in 1999, I gained a third-class medical in 2000. Finally, 11 years after I had been diagnosed, I was legally allowed to fly again.

> "I incorporated doing a fingerprick test into my pre-flight cockpit checks"

The system introduced by the USA was really good. It basically asked that you demonstrate that your blood sugar levels were in target range with an absence of hypoglycaemic events, that you were aware of hypos, had no diabetes-related complications and that you get three monthly check-ups. Before flying, I would test my blood sugar half an hour before take-off, test again an hour into the flight and again half an hour before landing. I incorporated doing fingerprick tests into my cockpit checks.

A couple of years later, I got my twin engine licence and bought my own aircraft, which I modified for long

distance flights. In 2002, I flew round the world to raise awareness of diabetes. I also spent many months flying myself around America to visit and talk at diabetes conferences and even broke some flying records, including visiting all 50 states in just five days, and a 17-hour round flight from Alaska to the North Pole.

In 2012, the CAA finally introduced unrestricted private flying and allowed insulin-dependent pilots to fly commercially if there was a second pilot who didn't have diabetes. At 50, I nearly decided to start flying commercially. But in the end, I realised I wanted to focus on my flying projects.

I still fly regularly and conduct aerial surveys over the Highlands to help track ice patches for climate research. I've set up two websites to support pilots with diabetes: **flyingwithdiabetes.com and pilotswithdiabetes.com**

Having diabetes doesn't need to change the shape of your ambitions.


Elspeth now makes sure to check her blood sugar and takes breaks

Photography: **Damian Prestidge**

# "Sometimes I'll put diabetes on the backburner at work"

**Elspeth Cunningham, 25, from Newcastle, was diagnosed with type 1 two years ago. She says:**

If you're thinking about joining the police force, don't let your diabetes stop you. When I was diagnosed, I thought there would be things I can't do now. But that almost makes me want to do it more. I'm quite stubborn. It might be really hard at first and like you're fighting a battle, but hopefully, you can find what works for you so you feel good and safe at work.

Learning to adapt to type 1 diabetes was a really big change for me. I had loads of leaflets, and the hospital called me every week, but I think diabetes is a weird thing where you have to figure out how it works for you.

Initially, I felt quite low, but I don't think I really acknowledged that at first. I became quite irritable at people when they were trying to help or if they made comments about what I was eating.

I had a chat with my mum, who said to take some time to feel rubbish, accept you have diabetes, and then we'll figure out how to manage it. It was a steep learning curve, but diabetes quickly became the new normal. Now, I understand how my body responds to different things through trial and error and adjusting. My diabetes team is a great source of support.

I work as a Scenes of Crime Officer for the British Transport Police. We'll go to a crime scene with the aim of gathering evidence to identify a suspect. We cover the railways, carriages, and places connected to train stations, like pubs or shops.

I absolutely love what I do, the work is really interesting and rewarding. There are some weeks when you're running over your shift time and when you finally stop, you realise how tired you are.

We do shift work on a four-week rotation. There are early shifts, late shifts, and day shifts, and then we're sometimes on call overnight.

I was quite worried and anxious at first about not being able to find food or drinks, but I always have snacks on me and I feel more relaxed now. I think my colleagues were worried at first, but once I explained how I manage my diabetes and what to do in certain situations, everyone relaxed. They're all really supportive and always checking on me.

After I got offered the job, I worried my diabetes would get in the way when it came to the occupational screening. I didn't know what the rules were.

The force was happy for me to join, but they made sure I was aware that it's quite a physical job and that I'd be on my feet a lot. I have to drive a lot too – we cover Norwich all the way to Bournemouth, so I'll sometimes be driving for six hours. I always check my blood sugars just before I set off and have a snack next to me on the seat.

> "The force was happy for me to join, but made sure that I was aware it's quite a physical job"

The job can be stressful, and sometimes I find that I struggle to distinguish hypo symptoms from feeling stressed or nervous. When I get stressed, I rush around and do things and that normally makes my blood sugar drop. I have to be quite aware of that.

Sometimes, if I want to get something at work finished, I'll put my diabetes on the backburner, so I have to remind myself that it's important to make sure I'm fine first, and then I can finish my work. I'm always checking my blood sugar levels and will have a break if I need to.

# "I wanted to tackle a problem in the bus industry"

**Jamie Duffield, 44, from Aberdeen, has lived with type 2 diabetes for three years. He says:**

I had no discernible symptoms of diabetes, so my diagnosis came as a shock. I then discovered a lot of my extended family have diabetes as well. I should have known more than I did.

At the time, my lifestyle was not particularly great. I'd been a bus driver for 13 years, and it's a sedentary career. I'm a chef by trade, and before working on the buses, I had a really active job as a warehouse picker.

I'd had a gym membership through work for a while, but that stopped when the company couldn't afford to keep funding it. I suppose I fell into a rut of, this is life, this is what you do.

Putting on weight affected my self-esteem. It's hard to see how you can change things when shift patterns and family commitments mean you're always looking after everyone else.

When I was diagnosed with type 2 diabetes, I was given the option to manage it with diet and exercise. Because I used to be a chef, I can cook healthy food – it was the exercise part I wasn't sure of. I did Couch to 5K, but then I got injured, and it was hard to get back into.

In 2023, I had a revelation. I was talking to another bus driver who had also recently been diagnosed with type 2. I decided to contact Diabetes UK to say I think we've got a problem in the bus industry.

We talked about different ways to address it and decided to set up a walking club and sports and social committee at work, fully backed by First Bus. The fact that my employers are on board and backing it is great.

Sometimes, people say to me, 'you're constantly going on about diabetes.' But if I don't talk about it, nobody does. Since we've started raising awareness at work, 10 drivers have been checked and found out they either have prediabetes or type 2. My own father got checked, and he's got diabetes as well. That's 11 people who can get the support they need.

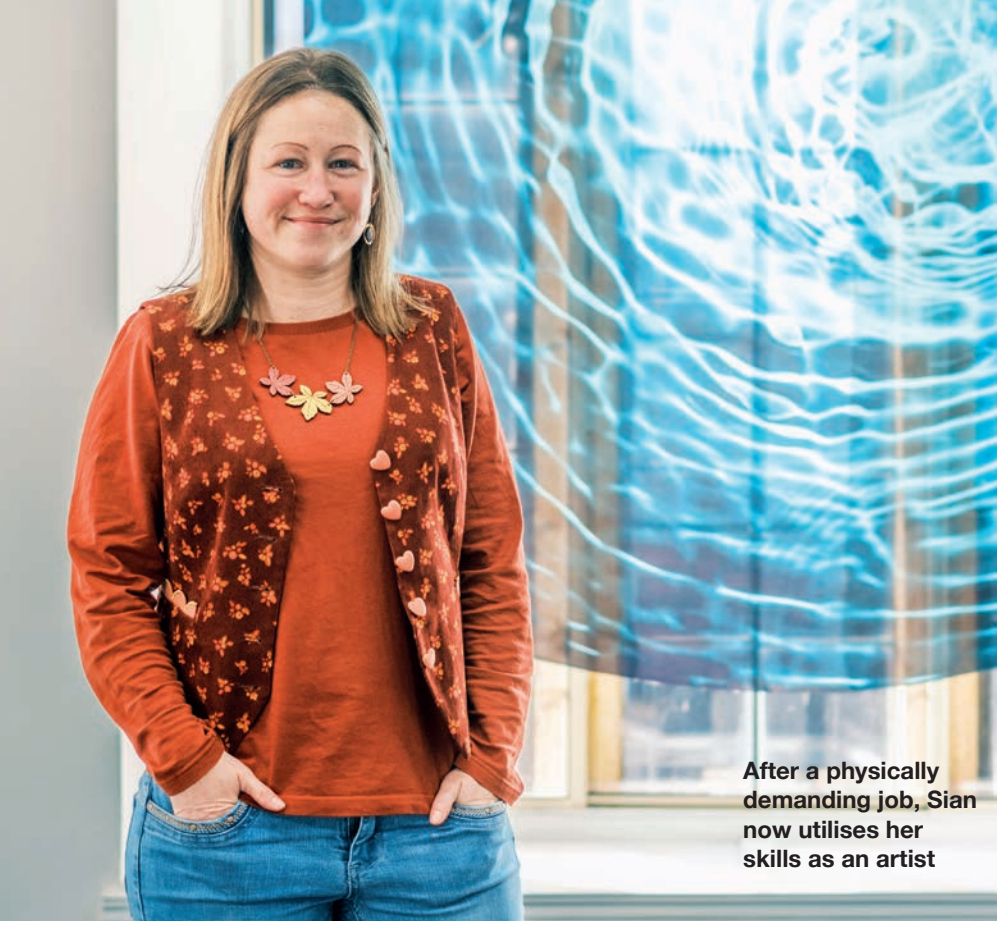
> "The fact that my employers are on board and backing it is great"

I'm achieving small goals, but they're actually really important in the grand scheme of things. My goal is to get everybody at work talking about diabetes. If I can help one person, I'll feel like I've done my job.

**For more info about type 2 diabetes risk, visit: diabetes.org.uk/bal-risk**


All aboard: Jamie is raising awareness of type 2 in the bus industry

Photography: Scott Cameron Baxter Photography



After a physically demanding job, Sian now utilises her skills as an artist

Photography: **Something Borrowed Photography**

## "I was working in a really harsh physical environment"

**Sian Cann, 35, from Somerset, has lived with type 1 since the age of two. She says:**

I felt quite proud that I was the only kid at primary school with diabetes. I took it in my stride. But when I reached my teens, I had some difficulties. I don't think anyone knew at the time, but I was very controlling of my insulin and what I was eating. I had an eating disorder, basically.

It's easy to see it now. I think it was triggered by being able to control something because a lot of time with diabetes, I felt out of control.

At school, I had no idea what I wanted to do with my life. I was really academic, sporty and into the outdoors. I'm determined to pursue what I want to do, regardless of diabetes. I always worked really hard to ensure it wasn't a barrier to my ambitions.

After graduating with an English Literature degree from York University, I worked at a summer camp for children with disabilities in Canada.

When I came back to the UK, I got a job with the National Trust as a gardener. Physically, that was very tough, and it was tricky in terms of diabetes. I have found it difficult at times to know whether to make my needs known to employers. I don't like to make a fuss.

One winter, I went to Lundy, an island in the Bristol channel that's owned by the National Trust. It was an amazing adventure, going on holiday on my own by helicopter to this remote place for the weekend.

While I was there, a crazy storm hit, and we couldn't get off the island for eight days. Luckily, I had taken extra diabetes supplies.

Lundy's so wild and remote. You're completely at one with nature and surrounded by the ocean. I loved it.

I applied to be the island's warden, surveying wildlife, doing environmental protection, working with the RSPB and doing visitor engagement, and I got it!

Lundy has a population of 28, so it was a strange little bubble to exist in. My diabetes supplies were shipped from the mainland three times a week, but it's a really harsh physical environment to live in, and my diabetes appointments fell by the wayside. I'd forgotten how important those are to keep up with, and I guess I felt a bit invincible.

In 2019, I married the ship's purser and left the island. During the first lockdown, I was out for a run when suddenly my vision went really blurry. It was the start of retinopathy.

I hadn't been having my checks because I'd been on Lundy, so I had no idea. It wasn't even on my radar that this could happen.

The eye clinic was amazing. I had laser treatment and surgical vitrectomy, but I'm now registered as visually impaired. I used to be really independent, outdoorsy, and loved going off and doing my own thing, so it's been a huge adjustment.

I started spending a lot more time inside, more than I ever had before. That's when I became an artist. I've always loved photography, Polaroid especially. It became a tool for me to show the way I was now seeing things.

I applied for and was awarded some arts grants, and I started selling work. To my surprise, it's gone from strength to strength. This is my new reality and art has been a great medium. Focusing on how people see things differently has been really empowering for me.

- **For more information about diabetes and disordered eating, visit: diabetes.org.uk/bal-diabulimia**
- **If you're struggling with any aspect of diabetes, our helpline is staffed by highly trained advisors who can offer support. Call 0345 123 2399**

**FOR MORE INFORMATION** about managing diabetes in the workplace and your legal rights, visit: diabetes.org.uk/bal-work

# FITNESS MYTHS BUSTED

**There can be lots of misconceptions around how to get the most out of physical activity. Our senior physical activity advisor, Neil Gibson, sets the record straight**

Evolution has equipped our bodies to move in all sorts of ways, whether it's performing incredible feats of strength and endurance or just walking to the shops or taking the stairs instead of the lift. In fact, we all need to move.

That's because being less active can increase the risk of gaining weight, which may lead to overweight or obesity. Despite this, one in four people in England are classed as being physically inactive – where you don't move your body for long periods. This can include sitting or lying on the sofa watching TV and sitting at a desk or computer.

Although there are many benefits to moving more, we know that you may be anxious about how your body will cope, and how activity can affect your diabetes. Anxiety over blood sugar levels and insulin dosage, complications arising from diabetes, mobility issues and many general fitness myths often stop people who have the condition from moving as much as they should.

It's time to bust those myths. Regardless of age or ability, if you have diabetes, movement can help lower blood sugar levels, boost mood, build strength and aid weight loss and maintenance, flexibility and sleep, to name a few benefits.

**"Start small and slow to give your body a chance to adapt so you can learn about your own limitations. You can then build up. The more you do it, the easier it should become"**

## MYTH 1 BEING ACTIVE CAUSES HYPOS

"While many activities can cause blood sugar levels to fall and the likelihood of hypos to increase, it's not as cut and dry as that.

"It all depends on intensity and type of activity. In fact, exercises like weightlifting and sprinting can cause levels to rise, and they can stay fairly steady when doing things like yoga and Pilates," says Neil.

If you're taking medication that puts you at risk of hypos, like insulin or sulphonylureas, it's important to speak with your healthcare team and get the right plan in place for you to manage your diabetes when you're active. If you take insulin, you might need to make changes to your dose when exercising, and they can advise you on this.

"Make sure you monitor blood sugar levels before, during (if possible) and after exercising and have a hypo kit to hand if your levels do start to fall. This will give you extra confidence and keep you safe. Diabetes shouldn't stop you from doing anything."

## MYTH 2 NO PAIN, NO GAIN

"Start small and slow to give your body a chance to adapt so you can learn about your own limitations," says Neil. "You can then gradually build things up. The more you do it, the easier it should become, and your physical and mental health will benefit. It's quite normal to feel some discomfort while you're exercising or to be a bit stiff or sore after – that shows your body is working harder than it is used to and benefiting from it. But there shouldn't be any sharp pain or feeling of injury. If there is, stop and seek medical advice."

## MYTH 3 IF YOU'RE ACTIVE, YOU CAN EAT ANYTHING

"If only!" says Neil. "Everybody needs to be eating a healthy, balanced diet. If you're trying to lose weight, exercise alone won't be enough. The food we eat plays a key part in weight loss, and there are lots of different dietary approaches that can help with weight loss, such as a low-carb diet, Mediterranean diet or lower-calorie diets.

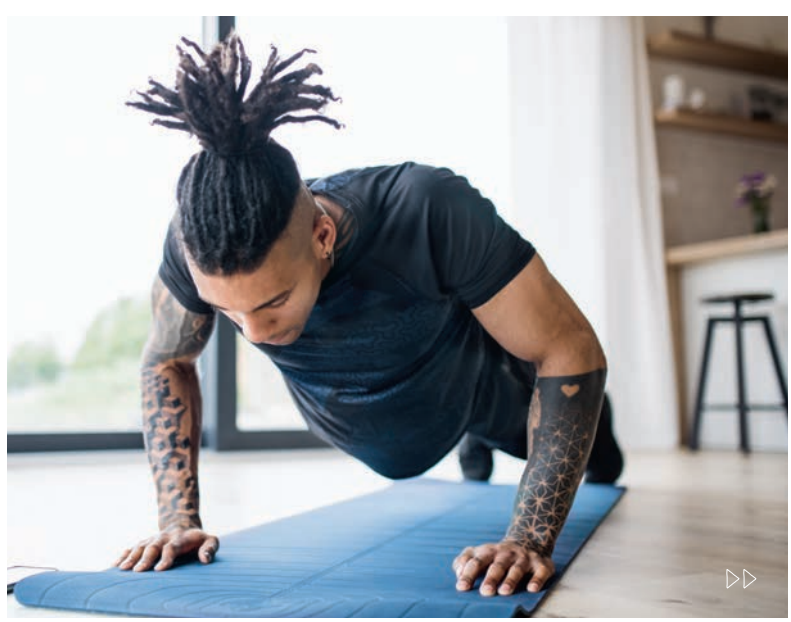
"Remember also that the benefits of being active go far beyond helping people lose weight. It builds strength and flexibility and boosts mood and metabolism, for example."

## MYTH 4 STRENGTH TRAINING BULKS YOU UP

Strength training, also known as resistance training, is any activity that makes your muscles work against a force or weight, such as lifting weights, press-ups or squats.

"To get a bodybuilder physique, you need to follow a strict routine that's as much about food intake as it is lifting weights," says Neil.

"The NHS recommends some form of strength training at least twice a week. That certainly won't make you a bodybuilder! It will, however, help you burn calories more efficiently and tone your muscles. Strength and flexibility exercises will help you increase muscle strength, maintain bone density, improve balance and reduce joint pain. Over time, it may also mean that you require less insulin."

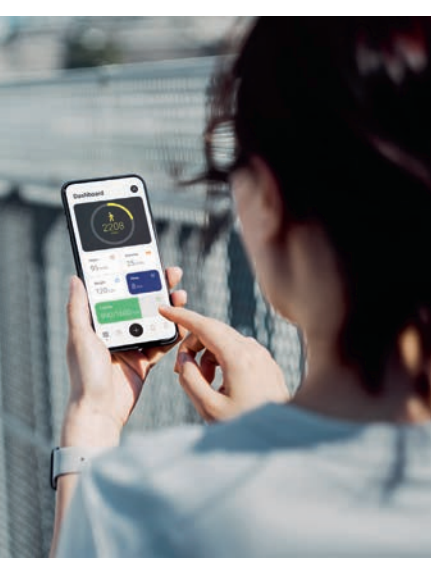


## MYTH 5
### YOU MUST WALK 10K STEPS A DAY

"This goal has its merits, but it's certainly not an exact science," says Neil. "Some studies say 7,000, 8,000 or 9,000 steps are optimal, and others say that more than 10,000 is best. So don't go beating yourself up or walking around in circles if you're at 9,900 steps before you go to bed!

"Having an app, a smartwatch or a pedometer that measures your steps can be a great motivator for moving more. Anything that makes people more active and less sedentary, even if it is an arbitrarily decided number, must be a good thing.

"The origins of the 10,000 steps goal go back to 1960s Japan, where a pedometer brand is said to have chosen the number because it was thought to be simple, catchy and easy to remember. They were right: 10,000 is still said to be the magic number!"



## MYTH 6
### IF YOU'RE NOT SWEATING, YOU'RE NOT WORKING

"Sweating is a marker of intensity of physical activity – the harder you work, the more you will sweat. But it's important to remember that we are all individuals. Some people run marathons and barely break a sweat, while others sweat more easily," says Neil.

"Being physically active is good for the body, regardless of how much you sweat. Also, remember that you don't have to join the gym or take up running to benefit from being more active. Gardening, housework and walking instead of taking the bus still count!"

## MYTH 7
### LONGER WORKOUTS ARE BEST

"The more active and less sedentary you are, the better. But I go back to my earlier advice: Start small and build up gradually. If you dive straight into really long workouts, this may cause injuries and fatigue. That will make it unsustainable and harder to motivate yourself," says Neil.

"It also depends on what your goals are. If you want to run a marathon or take part in any endurance sport, longer, less intense workouts may well be beneficial, but if you want to become a sprinter, your sessions are going to be shorter and far more intense.

"If you're simply trying to move more, mixing things up may be best. If you're spending hours in the gym doing the same thing week in, week out, you're likely to get bored. Try longer walks, shorter gym sessions and group activities. Variety is the spice of life!"

## MYTH 8 IT'S NORMAL TO BECOME LESS ACTIVE AS YOU AGE

"Government statistics show that people tend to become less active as they get older, but that doesn't mean we should all suddenly put our feet up when we reach a certain age. In fact, keeping on moving may be the key to a long, healthy and happy old age," says Neil.

"As we get older, our muscles begin to waste, and we may find that we tire more easily. Doing resistance work that helps maintain muscle strength three times a week, as well as exercises that work on balance twice a week will really help."

## MYTH 9 YOU NEED TO EAT PROTEIN AFTER EXERCISE

"There's a grain of truth in this, but we certainly don't all need to be swigging protein shakes or eating eggs by the half dozen to reap the rewards of being more active," says Neil. "Studies show that consuming protein can help muscle recovery and decrease the risk of injury.

"What it won't do is stop that stiff or sore feeling after exercise altogether. That feeling is caused by the muscles being stretched (and microscopic tears appearing in them, allowing them to grow) during physical activity. This improves over time the more regularly we're physically active."

**"Remember that you don't have to join the gym or take up running to become more active"**

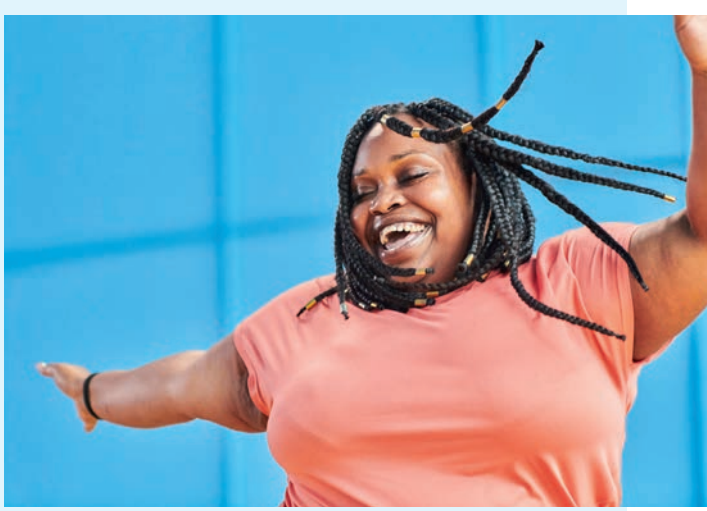
## MYTH 10 'JUST DO IT' WORKS FOR EVERYONE

"'Just do it' really isn't the best advice when it comes to being more active. Everything from the weather to time of day means that everyone should make plans to ensure they're safe before they jump in and 'do it,'" says Neil.

"If you have diabetes, those plans go beyond ensuring the bike lights are charged, and your jacket is waterproof. If you're at risk of hypos, ensure you have a hypo treatment and your diabetes kit with you, and discuss with your healthcare team if you need to adjust your insulin dose and carbohydrate intake.

"If you use an insulin pump with an exercise setting, that will lower dosage during activity. And remember to monitor levels afterwards and treat highs and lows accordingly.

"Planning properly – say, by packing your things in advance or arranging activities with friends – can also help maintain motivation. We all know how things can get in the way, so by making it easier and more enjoyable to move more, we're more likely to keep at it."



**For more advice on moving more and living a happier, healthier life with diabetes, visit diabetes.org.uk/bal-exercise. You can also get inspiration and share tips about getting active with other people with diabetes on our online forum: diabetes.org.uk/bal-forum**

Words: **Robert Brown**. Photography: **Centre for Ageing Better; Getty Images**

# DIABETES AND LEARNING DISABILITIES

## Expert advice on how to access support, as well as information about your rights as a patient, carer or loved one

According to Mencap, there are 1.5 million people with a learning disability in the UK, and they're at a higher risk of type 1 and type 2 diabetes.

Managing diabetes can be particularly challenging for those with learning disabilities and their carers, and both types of diabetes tend to appear at a younger age. The support needed to manage a person's diabetes is individual, and knowing your rights is key to helping you get access to the support you need.

### What is a learning disability?

It's different from a learning difficulty like dyslexia. A person with a learning disability has a significantly reduced ability to understand new or complex information or learn new skills. Their disability must have started before they turned 18 and have had a lasting effect on their development.

Learning disability covers a wide range of conditions. Some people may live relatively independently and need a low level of support, but others may have substantial care needs.

Diabetes is challenging for anyone, but self-management is still possible for lots of people with learning disabilities.

"We know with the right support, people with learning disabilities want to and can manage certain aspects of their diabetes care," says our Senior Clinical Advisor, Natasha Marsland.

### Clinical coding

GPs and other healthcare providers log records of treatments, conditions and medications as "clinical codes." They use these to automatically invite patients for the health checks and vaccines they're eligible for.

Being properly "clinically coded" can

help people with learning disabilities access the right health checks and vaccines. If you look after someone with a learning disability, you should be appropriately coded on the GP register, as you're also eligible for things like free winter jabs, such as the flu vaccination.

## What checks can I get?

Yearly health checks for people with learning disabilities help identify and solve health problems as early as possible. Available for people aged 14 or over, these are really important because those with learning disabilities are at a higher risk of certain health issues.

These checks are separate from standard diabetes checks. It's important to go to both appointments, so you see staff with expertise in each area.

You can ask the doctor anything about health, treatments and medication during a learning disability health check. You can tell them if you or your loved one is struggling with anything.

Health checks also involve things like a medication review and a height and weight check. The learning disability charity, Mencap, has an easy-read leaflet on their website to help you prepare for these appointments.

Ask your doctor for a check if you haven't been offered one. They aren't available at every GP surgery, so get in touch with your community learning disability team instead if you need to.

## What if I'm scared of needles?

Lots of people with learning disabilities find needles and injections difficult. If you need insulin but find it difficult to perform injections, your GP might offer you daily visits from a district nurse. These are usually offered up to twice a day, so recipients will need to switch to twice-daily injections.

If you need to go to your doctor or the hospital for a blood test or an injection like a vaccine, staff should carry out any necessary reasonable adjustments to make it easier for you.

Mencap recommends asking for a quiet waiting area if you need one, bringing a stress ball to help you relax and telling the person performing the procedure that you're scared of needles. You can ask for a screen to hide the needle, and for a nurse to apply a numbing cream to your arm.

You can also ask to get the flu vaccine as a nasal spray, which avoids having to get jabbed. Unfortunately, the Covid vaccine is only available as an injection.

If you're worried about needles, some tests can be performed via finger pricks or saliva instead of standard blood tests.

Consent is really important for all medical tests and procedures. Easy-read guidance to help people with learning disabilities understand their condition and give informed consent can be found at: **diabetes.org.uk/bal-learning-difficulties**

## Can technology help?

Continuous glucose monitoring (CGM) can reduce the number of finger pricks people with learning disabilities and diabetes have to deal with. If you use insulin and have a learning disability, you're eligible for CGM.

Some types of CGM allow parents or caregivers to receive real-time sugar levels and customise glucose alarms which can be really helpful. They also provide better data about your sugar levels that can be shared with carers and healthcare teams.

## What if I find appointments difficult?

Healthcare providers are legally obliged to do what they can to make appointments easier.

**You are legally entitled to ask for 'reasonable adjustments,' including:**

- **Adjustments for any physical needs you might have.**
- **Easy-read information and appointment letters.**
- **A quiet waiting area.**
- **Appointment times and lengths that suit you.**
- **A family member to keep you company.**
- **A learning disability nurse (although not every hospital or healthcare provider will have one).**

Having diabetes also gives you certain legal rights for any extra support or care you need to do as well as anyone else, for example, support in school and work*.

If you are admitted to hospital for any reason, you can request similar reasonable adjustments.

It's recommended people with a learning disability take a hospital passport with them. A hospital passport tells the hospital about your healthcare, your learning disability and how you like to communicate, and how to make things easier for you. It can help you get the care you need in an easier-to-understand way.

Adults with learning disabilities have greater healthcare needs, and some hospitals have learning disability nurses to help ensure the provision of any necessary reasonable adjustments to ensure equitable access to healthcare. "A lot of people may not know that they're entitled to a learning disability nurse," said Natasha. "They make such a positive difference."

You also have the right to bring a supporter like a family member, a friend or a support worker with you to hospital.

Insulin pumps may also help some people living with type 1 diabetes and learning disabilities. They deliver insulin through a tube that's changed every few days rather than by multiple daily injections. To be offered an insulin pump on the NHS, you have to meet certain criteria. For more info, visit: **diabetes.org.uk/bal-tech**

## IMPORTANT

Under the Mental Capacity Act a person aged 16 years and older with a learning disability should be supported to make decisions for themselves when they have the mental capacity to do so, and should remain at the centre of the decision-making process where they lack the mental capacity to make specific decisions. Any decision made must be in their 'best interests'.

## Weight management

People with learning disabilities are more likely to be living with obesity and overweight compared to the general population because of living with conditions that can cause weight gain or because of specific medications they take. Some people may be underweight because they have problems eating or swallowing.

Living with a learning disability can also make it harder to access a healthy diet and regular exercise.

When you have diabetes, keeping to a healthy weight has a lot of benefits and healthcare teams give advice for managing weight at learning disability health checks. The NHS website also offers advice for carers at: **nhs.uk/live-well/healthy-weight/managing-your-weight/managing-weight-with-a-learning-disability**

If the person you care for needs to put on more weight or is losing weight without meaning to, try giving them larger portions and offering nutritious snacks between meals. Calorie-enriched foods can help make sure someone gets the energy they need, even if they can't eat that much. Speak with the diabetes team to review any diabetes medication that is being taken.

A GP can make a referral to a dietitian for individual advice and support to help manage any necessary dietary changes.

Exercise is really important but can be challenging, especially for people with mobility issues. Dedicated, accessible classes and activities are available for people with any type of disability. Search: **nhs.uk/service-search/other-health-services/disability-sports-and-classes**

Mencap Sport supports people with learning disabilities to be physically active: **mencap.org.uk/about-us/what-we-do/mencap-sport**

You can also find help on the Special Olympics Great Britain Facebook page.

## Accessing financial support

People with learning disabilities are more likely to experience financial difficulties and have been disproportionately affected by the cost of living crisis. And not having enough money can make it more difficult to access nutritious foods and pay for extra healthcare support.

Financial support is available for some people with disabilities and complex health issues. NHS continuing healthcare funding can provide adults with care outside hospital. If you think you or someone you care for might qualify for continuing healthcare, the Beacon organisation can offer free advice, as can the Money Helper website.

Financial support such as Disability Living Allowance is available for under 18s, and they may also qualify for a "continuing care package" if they have needs that aren't covered by existing services. Search "Children and young people's continuing care national framework" on the Department of Health and Social Care website for more details.

## What if I need a break?

Respite care, where healthcare professionals or volunteers take over caring responsibilities for a few hours or days, can help carers and people with learning disabilities recharge. But it can be tricky to access. Your council can give advice on what is available locally.

Paid respite care is available through daycare centres, paid home carers and care homes, which may provide short stays. Your local council will decide whether you are eligible for funding.

Find more information at the NHS Carers' Breaks and Respite Care webpage and through the charity Carers UK.

## What's being done to make life with diabetes and learning disabilities easier?

Experts are working on new ways to support people with diabetes and learning disabilities.

- Research is underway evaluating an educational programme tailored to people with diabetes and learning disabilities. **It's called DESMOND-ID and is based on the type 2 diabetes DESMOND programme.**
- Researchers are analysing the data from the programmes delivered and we should have the results in the near future, so watch this space.
- Our website has easy-read resources for people with learning disabilities and their supporters: **diabetes.org.uk/bal-learning-difficulties**
- Our helpline can give specialist information and advice on all aspects of living with diabetes: **0345 123 2399**
- Download our easy-read guides **Why diabetes check ups matter** and **What do I need to know about diabetes?** for free at: **diabetes.org.uk/bal-shop**

*Under the Equality Act 2010, or if you live in Northern Ireland the Disability Discrimination Act 1995 Words: **Katherine Hignett.** Photography: **Getty Images**

# LESSONS FROM...

# INFERTILITY TREATMENT

**Laura, 36, from Dorset, has lived with type 1 diabetes since the age of 10. After struggling to conceive, she and her husband, Sam, had IVF treatment. Their daughter was born in July at 39 weeks**

**TRIGGER WARNING:** This article discusses pregnancy loss.

## 1 When you have type 1, you are constantly warned that an unplanned pregnancy can increase risks to the mum and baby

I always had a fear of becoming pregnant out of the blue. I thought I'd get pregnant at the drop of a hat, and when that didn't happen, it was such a blow.

We were trying for two years and were about to start IVF when I found out I was pregnant. Losing the baby at 12 weeks was devastating. I felt like, 'I already have to put up with diabetes, why can't having a baby be simple for me?'

Whether it's factually correct or not, it felt personal, like my body had made me miscarry because of diabetes and coeliac disease. There's a massive burden on top of the grief you feel. I was fortunate enough to have support from family and friends at church and would always encourage anyone going through fertility issues to seek talking therapies.

## 2 When we started IVF

I felt quite alone because I couldn't find examples online of other diabetics going through the same thing. I was researching like crazy as I knew how much hormones might affect my blood sugars, and IVF involves a lot of hormone changes. I hunted online for information or blogs or forum posts about IVF with diabetes, and there was nothing. I had lots of unanswered questions.

## 3 One of the blessings of having diabetes

and going through IVF was that I was used to medical language and administering medications to a schedule. I was probably ahead of the game on that. When they were teaching me to do the hormone injections for egg stimulation, the nurse looked at my pump and sensor on my tummy, and said, 'It's quite busy there, isn't it?'

I had to try alternative sites to avoid lipohypertrophy. I worried that might affect our chances of success, but for me it didn't.

## 4 Make sure your diabetes team

is aware of your plans and is supporting you. My team was amazing. It's so important to find that support. I found that changing to a hybrid closed loop helped keep me in range, especially at nighttime.

## 5 The most helpful thing

was that friends of ours had successfully gone through IVF shortly before us.

I found that a lot of people who post on the internet are going through a hard time and that can skew your perspective. Thinking it's going to go wrong has a massive impact. We were really blessed and got pregnant after the first cycle.

**If you're going through IVF and would like to get in touch with Laura, you can email: balance@diabetes.org.uk**

12 Days of Christmas (10 cards), £4.50

Honeycomb wildflower trough, £14.99

Recycled iron tealight fish, £29.99

# THAT'S A WRAP

**ITEMS ARE SELLING FAST – DON'T MISS OUT!**

The festive season is a time for giving, and every penny spent in our online shop helps us fight for a world where diabetes can do no harm. **Visit: diabetes.org.uk/bal-shop**

Nordic fabric sitting Santa ornament, £10.99

William Morris strawberry thief candle, £19.99


Robin (10 cards), £4.50


Racing reindeer fun crackers, £10.99

The town tree (10 cards), £4.50


Pass the parcel sprout, £6.99


William Morris Golden Lily tea for one, £35.99


Christmas Eve (10 cards), £4.50

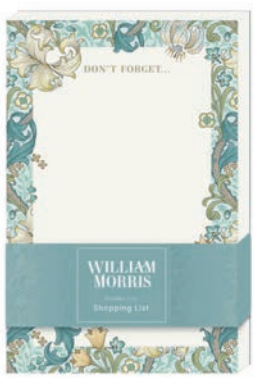
Resin rococo flying dove decoration, £7.99

Santa's belt candle, £12.99


Red toadstool night light, £4.95


Three ships (10 cards), £4.50

Vinyl record silicone coasters (set of 6), £7.95




William Morris shopping list, £9.99


Nostalgia Santa candle (Cinnamon Apple), £12.99

Soft grey kitchen scales, £29.95


Robins and rosehips candle (cinnamon & apple), £12.99


Village globe (10 cards), £4.50

# DIETS FOR TYPE 2 REMISSION

**Studies suggest that the key to putting type 2 diabetes into remission is weight loss. Our expert nutritionist Stephanie Kudzin looks at the evidence behind the main dietary approaches**

## THE FACTS

- Type 2 diabetes remission is when your long-term blood sugars fall below the diabetes level and stay there for at least three months without the need to take any glucose-lowering medication.
- Not everyone with type 2 diabetes is living with overweight or obesity. It could be unsafe to lose weight if your BMI is in the healthy range.
- Not everyone living with type 2 diabetes can go into remission. Some people can go in and out of remission. Some stay in remission for years and others find that their blood sugar levels rise again after a time if they regain weight, and they come out of remission. But weight loss, if you needed to lose weight, brings about many health benefits.

There are lots of different diets to choose from if you want to lose weight and try for type 2 diabetes remission. Just like your diabetes, weight loss is very individual to you. Your current weight or body mass index (BMI), the role food plays in your culture, and the level of changes you're able to make are just some of the things people tell us they think about when choosing a diet.

Stephanie says: "If you're trying to put your type 2 diabetes into remission, it's important to find a dietary approach that is right for you and that you have the right support to sustain weight loss.

"Trying for remission is not right for everybody, and you may need to make changes to your medication. Always speak with your healthcare team before making changes to your eating habits. They will be able to offer personalised advice and might be able to get you more support with your diet, too."

## Low calorie

**800–1,200 calories a day is a low-calorie diet**

- As a general guide, it's recommended that men need around 2,500 calories and women around 2,000 calories a day to maintain a healthy weight. Losing weight depends on you taking in less energy than your body needs, and we all have individual energy requirements.
- Low-calorie diets work by limiting the amount of calories you eat so your body doesn't take in more calories than it can use up. They are used in the NHS Path to Remission programme (see page 54).

## Low carb

■ People have different ideas on how low in carbs a low-carb diet is. We say following a low-carb diet means eating less than 130g of carbohydrates a day. As a rough guide, a medium slice of bread has around 15 to 20g of carbs, and a large jacket potato about 90g.

■ A low-carb diet can lead to remission of type 2 diabetes because it can help you lose weight. There's evidence that a low-carb diet can also help people with type 2 diabetes to lower their blood pressure and cholesterol levels.

■ If you're taking insulin or other diabetes medications that increase the risk of hypos, like sulphonylureas, to treat your diabetes, it's especially important you speak with your GP or diabetes nurse before you start a low-carb diet.

■ Your healthcare team will be able to give you advice on any adjustments to your insulin or diabetes medication that are needed to keep you safe on a low-carb diet.

■ Any low-carb diet you follow should include foods with good evidence of supporting health, such as vegetables, whole grains, dairy, fish and shellfish, pulses and nuts and seeds.

## Low fat

■ If you choose to follow a low-fat diet, remember that it's important to include some healthy fats like oily fish, such as sardines and salmon, walnuts, linseeds, and vegetable oils such as sunflower oil or spread. Your body needs some fat to fulfil a wide range of functions.

■ The main types of fat found in our food are saturated and unsaturated, and most foods will have a combination of these. We all need to cut down on saturated fat and use unsaturated fats and oils, such as rapeseed or olive oil, as these types are better for your heart.

■ Eating fewer fried foods can reduce your overall calorie intake, helping you to lose weight. People have put their type 2 into remission this way.

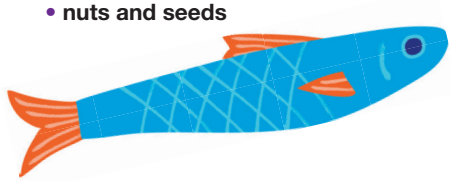
■ This is because fat is higher in calories than carbohydrates like wholemeal bread and pasta, and proteins like eggs, lean meat, nuts, and tofu.

**Saturated fat is found in lots of food like:**

- **butter, ghee, lard, coconut oil, and palm oil**
- **fatty cuts of meat**
- **sausages, bacon, and cured meats like salami, chorizo, and pancetta**
- **cheese, coconut milk and coconut cream, cream, ice cream**
- **pastries like meat pies, samosas, quiches, sausage rolls and pakoras**

**Foods that contain healthy fats include:**

- **rapeseed and olive oil**
- **oily fish like salmon or mackerel**
- **eggs and avocado**
- **nuts and seeds**



## MOHAMMED'S STORY

**Mohammed was diagnosed with type 2 diabetes aged 42. He says:**

Since changing my lifestyle, especially my diet, the benefits have been immense. It has been four years now, and I have pretty much maintained my remission. My HbA1c is currently at 42mmol/mol, which is prediabetes, so it may have crept up a little bit as I was relaxing my diet and doing less physical activity, but it's still in a good range. Reading other people's experiences about how to stop feeling hungry, what to eat, when to eat, and intermittent fasting has really helped. This is my new normal – my normal way of eating, drinking, and living.

Photography: **Getty Images**

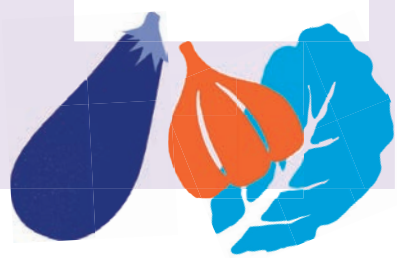
## Mediterranean

■ The Mediterranean diet involves eating fresh foods high in nutrients, vitamins and minerals that are important for your health.
■ It also involves eating lots of different types of foods and different flavours. Because it involves a wide variety of foods, many people find the Mediterranean diet easier to stick to in the longer term.
■ Evidence suggests following a Mediterranean diet can help with weight loss and lower blood sugar levels in people with type 2 diabetes.

Some people who have followed a Mediterranean diet have lost weight and put their type 2 diabetes into remission.

**TIP**

A Mediterranean diet is largely based on plant foods, including fruits and vegetables, beans and pulses, nuts and seeds, whole grains and olive oil. It also includes some dairy (milk and yogurts) and lean protein like chicken, eggs and fish, in moderation. Red meat and processed foods are usually only consumed in much smaller amounts, and wine can be included in moderation.



## Intermittent fasting

■ Intermittent fasting is also called time-restricted eating. There are different types of intermittent fasting diets, but all of them split your day or week into eating periods and fasting periods. These diets are not the same as religious fasting.
■ Research tells us that intermittent fasting can help people lose weight because they tend to consume fewer calories than they do when they eat at any time of the day. We know some people have put their type 2 into remission following an intermittent fasting diet, but the research and long-term data are limited.
■ During a fasting period, you will eat very little, or nothing at all. You'll only have nonalcoholic drinks such as water, coffee, tea and sugar-free squash, but you can drink them at any time.

**The most common fasting diets are:**

- **16:8 method: With this diet, you'll eat your meals and snacks within an 8-hour period of the day. You may choose to eat all your food between 9am to 5pm, or 10am to 6pm. For the other 16 hours of the day, you will fast, avoiding solid food but drinking fluids.**
- **5:2 method: With this diet, you will have two days where you have a very low-calorie intake, usually aiming for around 500 to 600 calories. The other five days of the week you'll eat normally, without restrictions.**

## Meal replacement

■ Meal replacement plans are short-term weight loss plans that replaces all or some of your meals with specially formulated food products, like soups, shakes and bars. You can buy them but they are sometimes available through the NHS.
■ With a total diet replacement programme (TDR), like the NHS Path to Remission programme, you replace all food with soups, shakes and bars. It contains all the nutrients, vitamins, and minerals your body needs to work properly, so it's not possible to make TDR products at home. When choosing a plan, it's important to check the products are nutritionally complete. Remember to drink enough water and sugar-free drinks throughout the day to meet your fluid requirements.
■ Most people can follow a TDR programme for up to 12 weeks.
■ Partial meal replacement plans consist of a mix of ordinary food and specially formulated products like shakes, soups, porridge, bars and snacks. Most people swap their usual breakfast and lunch for these products and have a healthy balanced meal in the evening.
■ For partial meal replacement, there isn't the same level of research to support this approach to remission as for TDRs, but we do know that partial meal replacement plans can help people lose weight.

### TYPE 2 SUPPORT PROGRAMMES

■ In some areas, the NHS offers meal replacement plans for people with type 2.
■ Path to Remission is a 12-month programme with specialist support from a healthcare team. Step 1 involves replacing food with low-calorie and nutritionally complete soups and shakes. Step 2 reintroduces healthy meals – around 1,200 calories a day. Step 3 is maintenance. You'll learn about building activity levels, sleep, dealing with stress, and what to do if you are regaining the weight you have lost.

# ONE POT WONDER

With cosy weekends in full swing for the winter, we've got the perfect way to boost your brunching or lunching! This Shakshuka recipe, selected in partnership with Slimming World, is sure to be a hit. It's super easy to make, all in one pan, and will be sure to satisfy your tastebuds. It's also a great recipe to make use of cupboard essentials like tinned tomatoes and beans!

## Shakshuka

**Serves 4 | Prep: 5 mins**
**Cook: 40 mins**

- Low-calorie cooking spray
- 1 medium onion, finely chopped
- 3 garlic cloves, crushed
- 2 x 400g cans chopped tomatoes with herbs
- 1½ tsp smoked paprika
- 1 tsp ground cumin
- 100g baby spinach
- 400g can cannellini beans, drained and rinsed
- 4 large eggs*
- Roughly chopped fresh parsley, to serve

**Pregnant women, older people, babies and toddlers are advised to eat eggs showing the British Lion stamp if eating raw or partially cooked eggs.*

**1** Spray a large non-stick frying pan (use one you can put some kind of lid on) with a couple of pumps of low-calorie cooking spray and put it over a low heat. Add the onion, garlic and 3 tbsp water. Cover and cook for 10 mins, or until the onion is soft.
**2** Add the tomatoes, paprika and cumin. Simmer gently, uncovered, for 10 mins, or until the sauce has thickened. Stir in the spinach and beans, and simmer for 4 mins, or until the spinach has wilted.
**3** Make 4 wells in the mixture using a spoon and crack an egg into each. Cover and simmer for 5–7 mins, or until the egg whites are set and the yolks are cooked to your liking. Season with pepper, scatter over the parsley and serve hot.

Photography: Slimming World and Gareth Morgans

PER SERVING 430g

| CARBS | CALS |
|---|---|
| 24g | 247 |

| Sugars | Fat | Sat Fat | Salt | Protein | Fibre |
|---|---|---|---|---|---|
| 12g | 6.8g | 1.8g | 1g | 16g | 7.4g |

2 portions of fruit and veg

**You can find the recipes we've selected together via the recipe finder on our website: diabetes.org.uk/bal-recipes**
**Or visit: slimmingworld.co.uk**

In partnership DIABETES UK KNOW DIABETES. FIGHT DIABETES. | Slimming World

# TREAT yourself

They say a little of what you fancy does you good. So why not enjoy these healthier treats, desserts and snacks?

## Roasted baba ganoush

Serves 4 | Prep: 10 mins | Cook: 45 mins

GLUTEN-FREE | VEGAN

- 2 medium aubergines, trimmed
- 1 large white onion, peeled and cut into wedges
- 4 peeled garlic cloves
- 4tsp olive oil
- 2tbsp lemon juice
- ½tsp ground cumin
- 3tbsp Alpro plain soya yoghurt
- Small handful (about 2tbsp) fresh coriander or parsley
- Freshly ground black pepper

**1** Preheat the oven to 200°C/fan 180°C/gas 6. Halve the aubergines lengthways and pierce several times with the prongs of a fork and arrange cut-side upwards in a shallow roasting tin. Scatter over the onion and garlic and drizzle over the olive oil. Roast for 45 mins until the aubergines are softened and beginning to char. Remove from the oven, cover with foil, and set aside until completely cold.
**2** Using a spoon, scoop the inside of the aubergine flesh into a food processor (discard the skins). Add the onion, garlic, lemon juice, cumin, yogurt and herbs. Whizz until smooth. Season with freshly ground black pepper. Serve with fresh crudités, such as carrot batons, sugar snap peas, pepper strips, etc. Store in the fridge and use within 4 days.

PER SERVING 239g (excluding crudités)

| CARBS | CALS |
|---|---|
| 8.4g | 91 |

| Sugars | Fat | Sat Fat | Salt | Protein | Fibre |
|---|---|---|---|---|---|
| 6.2g | 3.9g | 0.5g | 0.04g | 3g | 5.2g |

2 portions of fruit and veg

# Lime, mango and coconut frozen yoghurt

Serves 4 | Prep: 5 mins | Cook: None

GLUTEN-FREE | VEGAN

- 300g frozen unsweetened mango chunks
- 1 large lime
- 1tbsp granulated sweetener
- 55g Alpro plain soya yoghurt with coconut

**1** Defrost the mango for 10 mins. Meanwhile, finely grate the lime and set the zest aside. Squeeze the juice and reserve. Place the frozen mango, sweetener, yogurt and 3tbsp of lime juice into a food processor and whizz for 1–2 mins until creamy. Use a spatula to scrape down the sides of the bowl, making sure there are no lumps. Stir in the lime zest.

**2** Serve immediately or spoon into a freezer-proof container and freeze for up to 1 month.

PER SERVING 100g

| CARBS | CALS |
|---|---|
| 11.5g | 60 |

| Sugars | Fat | Sat Fat | Salt | Protein | Fibre |
|---|---|---|---|---|---|
| 10.4g | 0.4g | 0.1g | 0.02g | 1.1g | 2.8g |

1 portion of fruit and veg

# Wild salmon and pesto wholewheat crispbreads

**Makes 24/Serves 6 | Prep:10 mins | Cook: 20 mins**

- 25g fresh basil
- 1tsp toasted pine nuts
- 1tsp olive oil
- 2tsp grated Parmesan cheese
- ½ lemon
- 2 skinless wild Alaskan keta salmon fillets
- Freshly ground black pepper
- ½ small cucumber
- 2tsp white wine vinegar
- ½tsp granulated sweetener
- 1tbsp fresh chopped dill
- 4 radishes, trimmed and very thinly sliced
- 12 wholegrain crispbreads, halved
- Pink peppercorns to sprinkle if liked

**1** Preheat the oven to 200°C/fan 180°C/gas 6. Place the basil, pine nuts, olive oil, Parmesan and a squeeze of lemon juice and whizz to a coarse paste. Arrange the salmon on a foil-lined baking sheet and season with freshly ground black pepper and a squeeze of lemon juice. Spread the pesto over the top of the salmon and bake for 20 mins.

**2** While the salmon is cooking, halve the cucumber lengthways, scoop out the seeds and discard. Use a swivel peeler to peel long lengths from the cucumber, put into a bowl, and toss with the white wine vinegar, sweetener, dill and radishes. Set aside for at least 15 mins.

**3** Remove the salmon from the oven and flake with two forks. Leave to cool completely. Arrange the cucumber and radishes over the crispbreads. Flake the salmon and scatter over the top. Sprinkle with a little crumbled pink peppercorns if liked.

PER SERVING 84g

| CARBS | CALS |
|---|---|
| 12.8g | 156 |

| Sugars | Fat | Sat Fat | Salt | Protein | Fibre |
|---|---|---|---|---|---|
| 1g | 6.3g | 1.6g | 0.21g | 10g | 4.1g |

0 portions of fruit and veg

# Spice-roasted nuts

Serves 8 | Prep: 5 mins | Cook: 15 mins

VEGAN

- 120g almonds
- 40g unsalted raw cashews
- 20g walnuts, halved
- 20g blanched hazelnuts
- 5 pumps Frylight rapeseed oil
- ½tsp each ground cumin, mild chilli powder, mild curry powder
- ¼tsp each garlic granules, cayenne pepper, turmeric, ground ginger

**1** Preheat the oven to 160°C/fan 140°C/gas 3. Line a baking tray with baking paper.

**2** Combine all the nuts in a large mixing bowl and stir well. Spray with Frylight, add the spices and toss to coat evenly. Tip onto the lined baking tray and spread out into a single layer. Bake for 15 mins.

**3** Remove from the oven, toss well, spread out and leave to cool on the tray. Store in an airtight container and eat within 2 weeks.

PER SERVING 26g

| CARBS | CALS |
|---|---|
| 2.0g | 161 |

| Sugars | Fat | Sat Fat | Salt | Protein | Fibre |
|---|---|---|---|---|---|
| 1.2g | 14g | 1.3g | 0.01g | 5.5g | 2.1g |

0 portions of fruit and veg

# Whole oat, apple, pear and peanut butter crumble

**Serves 4 | Prep: 10-15 mins | Cook: 30-40 mins**

VEGAN

- 55g walnuts
- 3tbsp jumbo oats
- 2tbsp wholewheat flour
- ½tsp baking powder
- ½tsp ground ginger
- 2tbsp crunchy peanut butter with no added salt/sugar or palm oil
- 2 gala apples, cored and chopped
- 2 medium pears, peeled, cored and chopped
- 150ml water
- 1tsp ground cinnamon
- 4 dried prunes, roughly chopped

**1** Preheat the oven to 180°C/fan 160°C/gas 4. Place the walnuts in a food processor and whizz until very finely chopped. Tip into a bowl and stir in the oats, flour, baking powder and ground ginger, stirring well. Add the peanut butter and rub into the dry ingredients until it forms a crumbly topping.
**2** Place the apples, pears, water, ground cinnamon and prunes in a small saucepan and cook over a low heat for 15 mins until the fruit softens. Tip into a 1.5-litre ovenproof dish and scatter over the crumble topping to cover. Bake for 25–30 mins until golden and bubbling.
**3** Allow to cool for 5 mins before serving with unsweetened soya yoghurt or low-sugar vegan custard.

PER SERVING 179g
(excludes serving suggestion)

| CARBS | CALS |
|---|---|
| 17.9g | 191 |

| Sugars | Fat | Sat Fat | Salt | Protein | Fibre |
|---|---|---|---|---|---|
| 7.5g | 10.2g | 1.3g | 0.16g | 4.8g | 4.4g |

1 portion of fruit and veg

Photography: **Vinny Whiteman.** Recipes and food styling: **Lorna Brash**

# Spicy pitta pockets

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

VEGETARIAN

- 2 medium courgettes, trimmed and sliced
- 2 garlic cloves, crushed
- ½tsp ground cumin
- ½tsp ground coriander
- ½tsp smoked paprika
- Pinch cayenne pepper
- 2tsp olive oil
- 215g can chickpeas, drained and rinsed
- 2tbsp fat-free unsweetened natural yogurt
- 2tbsp fresh chopped mint
- Freshly ground black pepper
- 4 wholemeal pitta breads
- 2 medium tomatoes, thinly sliced
- 1 small little gem lettuce, leaves separated

**1** Preheat the oven to 200°C/fan 180°C/gas 6. Place the courgettes in a large bowl and toss with the garlic, cumin, coriander, paprika, cayenne and olive oil, and spread onto a baking tray. Roast for 15 mins.

**2** While the courgettes are cooking, whizz the chickpeas with the natural yogurt and mint. Season with freshly ground black pepper.

**3** Warm the pittas. Cut in half and carefully open out the pockets – spoon in a little chickpea mixture, some little gem lettuce leaves, sliced tomatoes and some spicy courgettes and serve.

PER SERVING 274g

| CARBS | CALS |
|---|---|
| 53g | 313 |

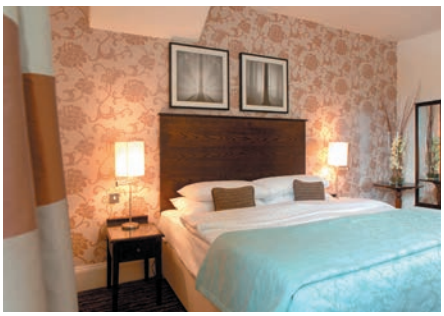
| Sugars | Fat | Sat Fat | Salt | Protein | Fibre |
|---|---|---|---|---|---|
| 5.3g | 4g | 0.7g | 1.1g | 12.5g | 7.3g |

2 portions of fruit and veg

# WIN

**A cosy getaway at this traditional coaching inn**

# NORTHERN STAR

Classic Lodges is offering readers the chance to win a luxury one-night stay in a deluxe room for two at The White Swan, set in the heart of the historic market town of Alnwick. This fantastic prize includes a delicious three-course dinner and breakfast the following morning.

The White Swan is the ideal setting to enjoy and explore the unspoilt hills, beautiful coastline and historic castles of Northumberland.

Classic Lodges' collection of hotels all have their own charming character, whether a peaceful country getaway or city centre stay. With restful rooms, signature style and comfort, delicious dining inspired by the freshest locally sourced produce, and indulgent treatments at its luxury spa and pool, The White Swan is the perfect place to escape.

**To book a stay with Classic Lodges, please visit: classiclodges.co.uk/specialoffers**

**Terms and conditions:** The dinner, bed and breakfast prize is based on two people sharing a deluxe room for one night at The White Swan. The prize includes a three-course dinner and a full English or continental breakfast the following morning.

The prize is valid for six month's following the competition closing on February 25 2025 (excluding Christmas & New Year dates, Valentines Day and Mother's Day, other dates may be excluded) and must be booked via the Central Reservations line – 01257 238730.

The prize is subject to availability on selected dates, is not transferable and cannot be exchanged for a cash value.

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the sign of a great hotel

PRIZE

## LUXURY HOTEL STAY INCLUDES:

- A one-night stay for two at The White Swan in a double bedroom.
- Three-course dinner and a full breakfast the following morning.

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

# CRAVING COMFORT

Why do we want indulgent foods more in the winter months? We look at the factors that influence our habits at this time of year and give advice on managing your health and diabetes so you don't feel left out in the cold

Desiring comfort foods such as stodgy pasta bakes, hearty stews, and indulgent puddings in winter, likely comes from how these foods make us feel, rather than a physical need. The specific foods we find comforting will vary depending on things like cultural background, personal experiences and tastes.

Food cravings are not the same as addictions like smoking or alcohol, because food doesn't create the same intense chemical dependency in the brain.

While our bodies do use more energy in extremely cold temperatures, most of us in the UK don't spend enough time in these conditions to need more or higher calorie foods. But we have innate, instinctive drives to seek out certain foods in winter when food was traditionally more scarce, and our bodies haven't adapted to no longer living in those environments.

"Those cosy evenings curled up in front of the TV can lead to us eating more and moving less than usual," says our expert nutritionist, Stephanie Kudzin.

"And we're surrounded by adverts for indulgent food, which can also be a trigger for comfort foods."

## FUEL UP

- Choose foods that make you feel warm and cosy but are also nourishing. This will help you look after your diabetes and general health.
- A meal plan can help you stick to a healthy and balanced diet during the winter months when you want certain foods or want to try something new. Our website has many plans to suit all types and tastes. They're nutritionally balanced, calorie- and carb-counted, and can help if you want to lose weight. They also make sure you eat your five a day and have the right amounts of dairy (calcium), wholegrain foods, oily fish (if you eat it) and very little (or no) processed meat: **diabetes.org.uk/bal-meal-plan**

From hearty soups to comforting casseroles, our recipe finder has hundreds of seasonal favourites. Visit diabetes.org.uk/bal-recipe

## COOK'S TIP

Add lentils or beans to your winter soups, pies and casseroles to make them heartier and more filling while boosting your intake of protein and fibre. They can also help manage your blood sugar levels.

# Apricot porridge with toasted seeds

**Serves 2 | Prep: 15 mins | Cook: 10 mins**

DAIRY-FREE | VEGETARIAN | VEGAN

- 50g ready-to-eat dried apricots
- 150ml orange or apple juice
- 50g porridge oats
- 15g chia or linseeds, toasted

**1** Place the apricots in a small pan and cover with the juice. Bring to the boil and simmer for 5 mins.
**2** Set aside for 10 mins, then place in a food processor or blender and blend to form a purée.
**3** Place the oats in a small pan, cover with 600ml of water, then place over a low heat and cook for 3–4 mins.
**4** Stir through half the apricot purée, divide between 2 bowls, then top with the toasted seeds and a swirl of the remaining purée.

PER SERVING 432g

| CARBS | CALS |
|---|---|
| 31.9g | 215 |

| Sugars | Fat | Sat Fat | Salt | Protein | Fibre |
|---|---|---|---|---|---|
| 14.6g | 5.8g | 0.8g | 0.02g | 6.2g | 4.9g |

0 portions of fruit and veg

# White bean and lamb stew

Serves 4 | Prep: 20 mins | Cook: 1hr 20 mins

DAIRY-FREE

- spray olive oil
- 300g very lean lamb, diced
- 1 onion, roughly chopped
- 2 celery stalks, cut into 2cm chunks
- 2 carrots, peeled and cut into 2cm chunks
- 2 garlic cloves, sliced
- 2 sprigs rosemary
- 1tbsp Worcestershire sauce
- 410g tin chopped tomatoes
- 2 bay leaves
- 820g tin black-eye beans in water, and drained and rinsed
- 300g savoy cabbage, roughly chopped
- ground black pepper

**1** Preheat the oven to 180°C/gas 4. Meanwhile, heat a flameproof casserole dish over high heat, spray lightly with olive oil and fry the lamb in batches until browned all over. Set aside.
**2** To the same casserole dish, add the onion, celery, carrots, garlic and rosemary and cook, adding a splash of water, until the vegetables have started to soften (approx. 10 mins).
**3** Return the lamb to the casserole and add the Worcestershire sauce, tomatoes and bay leaves. Stir to combine and add 300ml water.
**4** Cover and cook in the oven for 45 mins. Stir in the black-eye beans and cabbage, adding extra water as necessary.
**5** Return to the oven for a further 15 mins.

PER SERVING 423g

| CARBS | CALS |
|---|---|
| 32.6g | 340 |

| Sugars | Fat | Sat Fat | Salt | Protein | Fibre |
|---|---|---|---|---|---|
| 13.4g | 7.5g | 2.8g | 0.37g | 27.2g | 16.5g |

4 portions of fruit and veg

# Vermicelli kheer pudding

Serves 6 | Prep: 10 mins | Cook: 30 mins

VEGETARIAN

- 125g fine vermicelli
- 1.2L semi-skimmed milk
- 2 cardamom pods
- artificial sweetener, to taste
- 60g pistachio nuts, roughly chopped

**1** Bring a pan of water to the boil, add the vermicelli and simmer for 2 mins.
**2** Drain. Return to the pan and add the milk.
**3** Simmer for 15–20 mins, stirring occasionally, until the vermicelli and milk have thickened.
**4** Remove from the heat, sweeten with sweetener to your taste, and sprinkle over the pistachio nuts.

PER SERVING 243g

| CARBS | CALS |
|---|---|
| 26.7g | 225 |

| Sugars | Fat | Sat Fat | Salt | Protein | Fibre |
|---|---|---|---|---|---|
| 10.2g | 8.1g | 2.8 | 0.22g | 10.8g | 0.9g |

0 portions of fruit and veg

## COOK'S TIP

**Warming spices**

**1.** Aromatic cardamom can add extra spice and depth to stews and curries. Although it's most commonly used in savoury cooking, particularly Indian cuisine, it's also useful when baking occasional sweet treats, and it goes surprisingly well with chocolate.
**2.** Cinnamon is a spectacular storecupboard spice that adds warmth and flavour to bakes, breakfasts, drinks and snacks. Try making a cup of cocoa or hot chocolate using a cinnamon stick for flavour instead of adding sugar or sweetener.

# MEET THE SENIOR PHYSICAL ACTIVITY ADVISOR NEIL GIBSON

**Neil helps people with diabetes move more, and is heading up our fight to decrease stigma in national sports institutions**

My role aims to give the best information and support we can around exercise and physical activity to people living with diabetes, and to research the barriers and motivators to them being more active.

A proud moment was when, through funding, we introduced the Live Well Move More programme – a physical activity helpline, 10-week sessions for people trying to be active, both in person and online, and a campaign to spread the word. This successfully ran for two years and led to further developments.

I currently look at the clinical aspects around physical activity and exercise, and our interactive tool, Learning Zone. The most important thing is checking the clinical accuracy for people living with diabetes and making it as easy as possible to understand and follow.

Before working here, I coached people living with diabetes. I also had a close friend who lives with type 1. While I didn't really know the science behind any of it, I knew the stigma that he experienced. I remember him being told at school that he couldn't or shouldn't be doing certain sports because he had diabetes.

When I talk to people about being more active, I try to keep it simple. I avoid using the word 'exercise' too much. It's about how people can move more, not just going to the gym and lifting weights. But when I'm talking to healthcare professionals, researchers and people in the fitness industry, the discussion can get quite complex and scientific. My job is varied in that way!

The biggest thing people struggle with when it comes to activity and diabetes is the fear of hypos. If you're living with type 1 or take medications that can cause hypos, we will try to come up with strategies to manage any worries you have. I always recommend checking your blood sugars regularly and making sure that you have hypo treatment available. Research has shown that for people living with type 2, the biggest barrier is around pain and the fear of injury. With all types of diabetes, we often find it's not just diabetes that's the issue, it's all the other barriers and worries around physical activity. The same issues faced by people without diabetes.

We're currently advising sporting organisations, including the Football Association, Swim England and England Athletics, about exercise and diabetes. The aim is to reduce stigma and barriers to being active when you go into gyms or sports clubs. Trying to create change with these big national institutions is very motivating.

When I see people that didn't know where to start exercising be able to progress, or someone says that the resources we've developed have helped them, it's so rewarding.

## FUN FACTS

- **Travelling and holidays are really important to me. Recently, I've been to Mexico, Australia and around Europe. Although I've now got a baby daughter, so that may change our travel plans!**
- **I have my car licence, bike licence and boat licence. I got my boat licence when I was working at a summer camp in the USA.**
- **I lived in America for a year working as a football coach for Major League Soccer.**

- **We have a free Move More guide on our online shop: shop.diabetes.org.uk/collections/move-more-1**
- **We also have free exercise videos: www.youtube.com/@diabetesuk**

Photography: **iStock**

# SHOP WITH US

## We've got a whole host of items for you to buy on our online shop.

And with every purchase, you're helping us drive life-changing research and be there for people with diabetes.


Diabetes UK Hoodie

Go to **diabetes.org.uk/bal-shopping**

Or call **0800 585 088***

*Phone lines open Monday to Saturday 8am to 8pm and Sunday 9am to 6pm.

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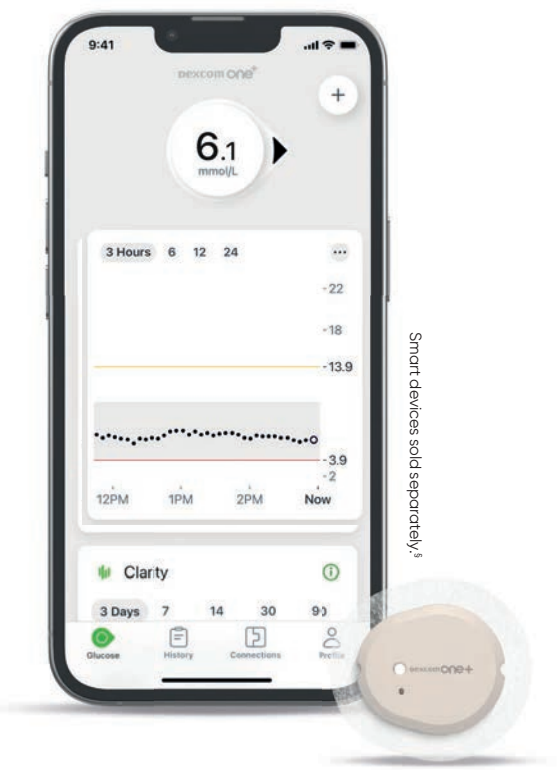
KNOW DIABETES. FIGHT DIABETES.


# discover an easier way to manage diabetes[†,‡,1]

## introducing the new Dexcom ONE+

**A continuous glucose monitoring system (CGM)** that lets you see your glucose readings at a glance on your smartphone,[§] receiver,[‖] or smartwatch.[¶]

- ✓ **Accurate[2-4] readings 24/7**
- ✓ **No finger pricks[*] or scanning**
- ✓ **Customisable high and low alerts**
- ✓ **For type 1 and type 2 diabetes**




Smart devices sold separately.[§]

**ask your diabetes team about Dexcom**
**dexcom.com/balance3**

Please speak to your healthcare professional when choosing a CGM. *If glucose alerts and readings from Dexcom ONE+ do not match symptoms or expectations, use a blood glucose meter to make diabetes treatment decisions. †Results obtained with Dexcom G7 study, which shares similar features and usability. ‡Compared to self-monitoring of blood glucose (SMBG). §For a list of compatible devices, visit www.dexcom.com/compatibility. ‖Optional receiver sold separately. ¶Compatible smartphone required to send readings to a compatible smartwatch. 1 Dexcom. Data on file, 2022. 2 Dexcom ONE+ User Guide, 2023. 3 Garg SK, et al. Diabetes Technol Ther. 2022;24(6):373-380. 4 Laffel LM, et al. J Diabetes Sci Technol. 2023;17(4):962-967. 